



Physics in Canada La Physique au Canada

Volume 71 No. 2 (supplement)
(2015)

Congrès de l'ACP CAP Congress

15 - 19 juin 2015 / June 15 - 19, 2015



Canadian Publication Product Sales
Agreement No. 40036324 / Numéro de
convention pour les envois de publica-
tions canadiennes: 40036324

**THE 2015 CAP CONGRESS
PARTNERS WELCOME YOU TO
EDMONTON**

**LES PARTENAIRES DU CONGRÈS
2015 DE L'ACP VOUS SOUHAITENT
LA BIENVENUE À EDMONTON**



**UNIVERSITY OF
ALBERTA**

The congress organizers thank each of the sponsors and partners for their generous contributions. At the time of printing these are:

Les organisateurs du congrès remercient tous les commanditaires et partenaires de leurs généreuses contributions. Au moment d'aller sous presse, ce sont :

CONGRESS SPONSORS / COMMANDITAIRES DU CONGRÈS

Gold - Or

Faculty of

SCIENCE
University of Alberta



Canadian Light Source / Centre canadien de rayonnement synchrotron

TEN YEARS
OF DISCOVERY

Silver - Argent



**UNIVERSITY OF
ALBERTA**

Department of
Physics



Canadian Journal
of **Physics**

An NRC Research Press Journal

Bronze



Faculty of
Engineering
- and -
Department of
Electrical and
Computer
Engineering



TRIUMF

WILEY



UNIVERSITY OF
WATERLOO

IQC

Institute for
Quantum
Computing

PEARSON
Education



NELSON
EDUCATION

Commercial Publisher's Session

Other - Autres



Springer



Advancing Plasma-Based Technologies
PLASMIONIQUE
À l'Avant-Garde des Technologies Plasmas



TABLE OF CONTENTS / TABLE DES MATIÈRES

2015 CAP Congress

Congrès de l'ACP 2015

IFC	Welcome to Delegates; List of Sponsors / <i>Bienvenue aux délégués; liste des com- manditaires</i>	11	Plenary Talks / Conférences plénières
ii	Registration, Exhibitors, CAP Office / <i>Inscription, Exposants, Bureau de l'ACP</i>	14	Special Sessions / Sessions spéciales
iii - viii	Travel Information and Maps / <i>Comment se rendre au Congrès et Cartes</i>	15	15th Annual Physics Teachers' Day / <i>15^e journée annuelle des enseignant(e)s</i>
2	Technical Program Committee and Local Organizing Committee / <i>Comité du programme technique et Comité organisateur local</i>	16	Science Policy and Career Path Session / <i>Séance spéciale tant sur la politique scien- tifique que sur le parcours de carrière</i>
3	Notes to Delegates / <i>Notes aux délégués</i> - Abstracts, Name Badges, Registration, Parking / <i>Résumés, Insignes porte-nom, Inscription, Sta- tionnement</i> - Instructions: Oral Presentation, Poster Presenta- tion, Student Competition, abstract upload / <i>In- structions: Présentations orales et d'affiches, compétition étudiantes, téléverser votre affiche</i>	17	Annual General Meeting - Draft Agenda <i>Assemblée générale annuelle - Ordre du jour provisoire</i>
7	Best Student Presentation Competitions / <i>Compétitions pour les meilleures com- munications étudiantes</i>	18	Abbreviation Key / <i>Code des abréviations</i>
8	Special Instructions for Timed Papers / <i>Instructions spéciales pour les présenta- tions chronométrées</i>	19	Congress at a Glance / <i>Sommaire du congrès</i>
9	Herzberg Public Memorial Lecture / <i>Conférence publique Herzberg</i>	23	Sponsor Ads / <i>Publicité des commanditaires</i>
		24	Detailed Congress Program / <i>Programme détaillé du Congrès</i>
		46	List of contributions - Poster Session / <i>Liste des contributions - Sesion d'affiches</i>
		50	Presenter Index / <i>Index des présentateurs</i>
		53	Sponsor Ads / <i>Publicité des commanditaires</i>
		54	NOTES
		BC	Next Congress / <i>Prochain congrès</i>

Advertising Rates and Specifications (effective-
January 2015) can be found on the PiC website
(www.cap.ca - Publications). / Les tarifs publici-
taires et dimensions (en vigueur dès janvier
2015) se trouvent sur le site internet de La
Physique au Canada (www.cap.ca - Publications)

Notice to Delegates

A copy of the printed program will
be provided to delegates at the
Annual Congress at the Univer-
sity of Alberta in Edmonton, AB

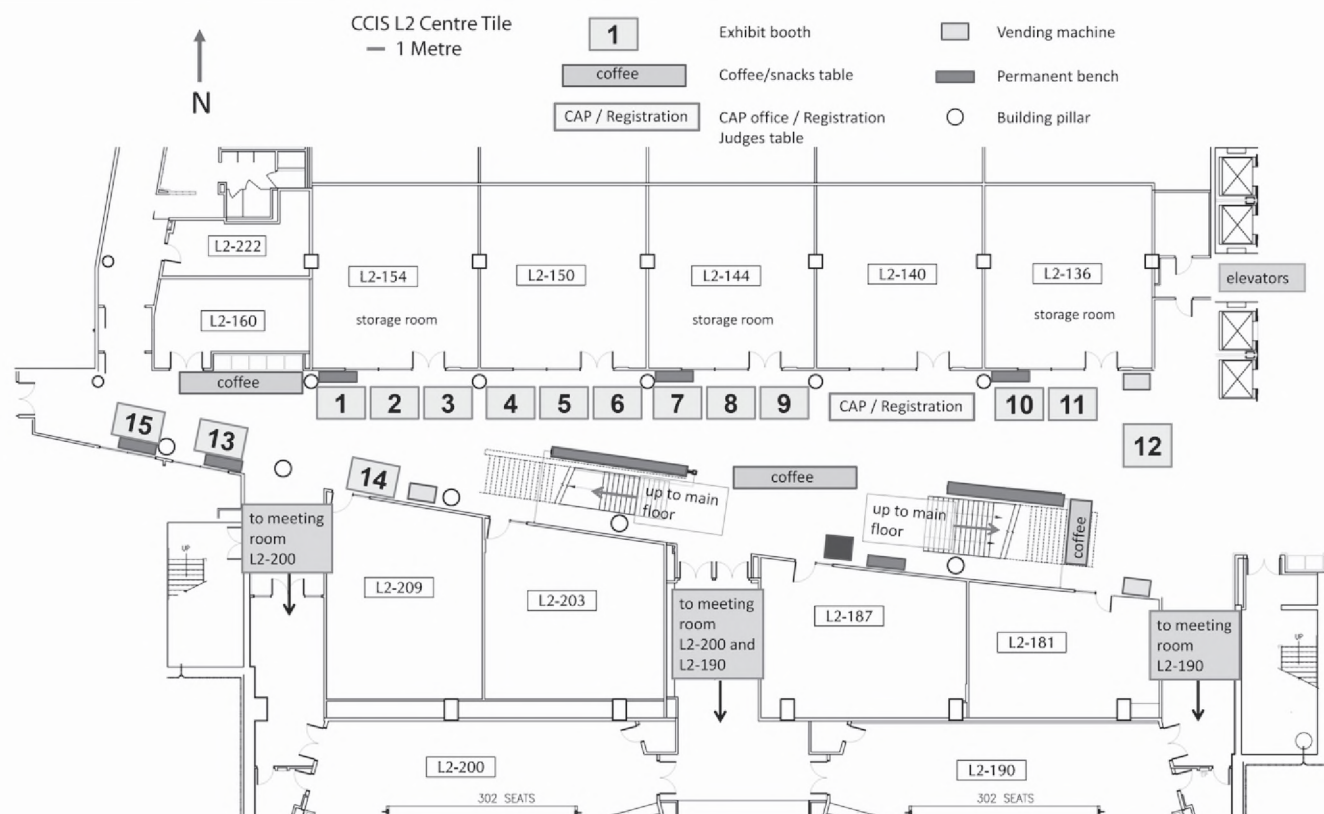
Avis aux délégués

Une copie du programme imprimé
sera donnée aux délégués au
Congrès annuel, à l'Université de
l'Alberta à Edmonton, AB

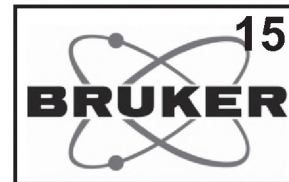
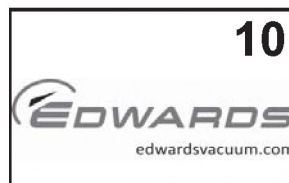
Front Cover / Couverture

Art Gallery of Alberta in Edmonton - host to the CAP's Recognition Reception /
La « Art Gallery of Alberta » à Edmonton - lieu du Gala reconnaissance de l'ACP

Registration, Exhibitors, CAP Office Inscription, Exposants, Bureau de l'ACP



Exhibitor Booths / Kiosques des exposants



Exhibitor Hours / Heures des exposants

Tuesday / mardi
08h30 - 17h30

Wednesday / mercredi
08h30 - 17h30

Travel Information to Congress

DIRECTIONS TO THE UNIVERSITY OF ALBERTA

BY CAR:

From the Edmonton International Airport towards City centre...

The Airport is 30 kilometers south of downtown Edmonton along Alberta's primary north-south highway, Queen Elizabeth II highway (QEII also number 2). Exit the Airport heading East on Airport Road and after about 2km, turn North (via cloverleaf) onto QEII. After about 15km (as it enters the city), QEII splits between Anthony Henday Dr and Gateway Blvd; stay right (following signs to city centre) to take Gateway Blvd. For UofA campus or downtown, directions are continued below.

...To UofA Campus

Follow Gateway Blvd (North) for about 8 km. Turn left (West) onto Whyte Avenue travel 9 blocks to 112 St. This is the southeast corner of main campus (North Campus). From here, Campus Tower is 5 blocks straight north. Lister Centre is 5 blocks north and 4 blocks west.

...To downtown (Chateau Lacombe)

Follow Gateway Blvd (North) for about 8.5 km. Turn right onto Saskatchewan Drive, and take a quick hairpin left down Queen Elizabeth Park Rd. Cross the river and take an immediate right onto 95 Ave which turns into Rosssdale Rd and curves to the north. After 400 m, keep straight to join Bellamy Hill Rd and climb out of the river valley. Chateau Lacombe is on your right at the top of the hill

Parking

The closest parking to CCIS is Windsor Car Park (WCP), Lot V, and Lot E. Lot E is accessed via Saskatchewan Drive and is \$1.25/15 min; WCP and Lot V are accessed via 116 St. and are \$14/day or \$1.00/15 min. Parking is heavily monitored around the clock.

BY TAXI:

Taxis charge a flat rate between the Airport and the city (see <http://flyeia.com/coming-and-going/taxis-and-limos>). As of printing, the airport-to-UofA campus taxi rate is \$55 and the UofA campus-to-airport rate is \$46. Travel time is about half an hour. Numbers for the airport servicing taxi companies are as follows: 24-7 Taxi Line (780) 442-4444, Airport Taxi Service (780) 890-7070, Co-op Taxi Service (780) 425-2525, Greater Edmonton Taxi Service (780) 462-3456, Air Limousine (780) 989-7099.

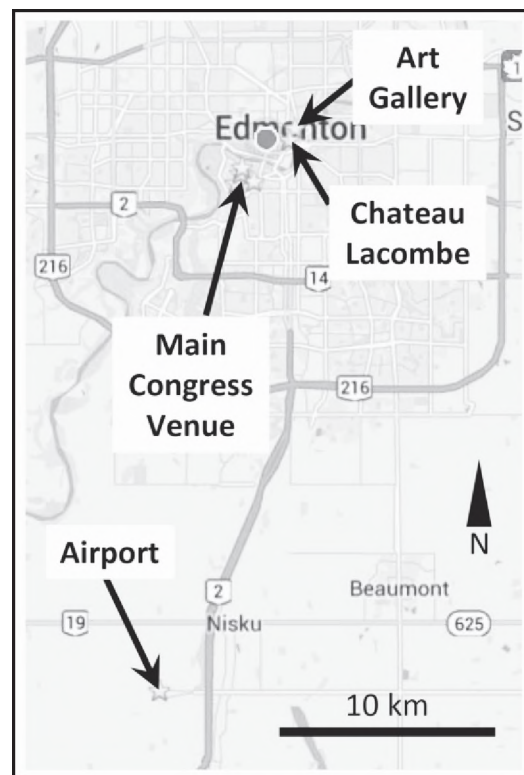
BY SKY SHUTTLE:

Sky shuttle (<http://edmontonskyshuttle.com/>) provides bus service between the airport and various locations and major hotels in Edmonton. Travel time is about 45 minutes. The one-way adult fare is \$18, round trip is \$30. Sky shuttle kiosk is located near door #7 on Arrivals level. Campus pick-up and drop-off locations include Lister Centre, HUB Mall South, and U of A Hospital. Call (780) 465-8515 a day ahead to reserve a pick-up spot for departing Edmonton to the Airport.

EDMONTON TRANSIT (ROUTE 747) + LRT (SUBWAY):

<http://flyeia.com/coming-and-going/bus-and-shuttles/route-747-bus-service>

Edmonton transit system (ETS) has bus service (route 747) running between the Airport and the Century Park Transit Centre (the southern terminus of the LRT Capital line) 7 days a week from 4:10 a.m. to 12:30 a.m. Travel time is half an hour. Fare is \$5 one way, cash paid upon entry. Catch it outside door #8 on Arrivals level. From Century Park, you can purchase an ETS ticket for \$3.20 and take the LRT train to the University main campus (14 minutes). Exit at Health Sciences/Jubilee station for Lister Center or University station for East and North parts of main campus.



The congress registration and information desk will be located in the L2 Foyer of the CCIS Building. Hours of operation can be found on page 3.

Comment se rendre au Congrès

INDICATIONS POUR ALLER À L'UNIVERSITÉ DE L'ALBERTA

EN VOITURE :

De l'Aéroport international d'Edmonton vers le centre-ville...

L'Aéroport est situé à 30 kilomètres au sud du centre-ville d'Edmonton, le long de la route principale nord-sud de l'Alberta, appelée Queen Elizabeth II (QEII, aussi numéro 2). Prenez la sortie de l'Aéroport, direction est, sur le chemin Airport et, après environ 2 km, tournez vers le nord (par l'échangeur en trèfle) sur la route QEII. Après environ 15 km (en entrant en ville), la QEII se divise en deux : Anthony Henday Dr et boul. Gateway; gardez la droite (en suivant les panneaux indicateurs jusqu'au centre-ville) et prenez le boul. Gateway. Pour le campus de l'Université de l'Alberta ou le centre-ville, voir plus loin les directions à suivre.

...Jusqu'au campus de l'Université de l'Alberta

Suivez le boul. Gateway (nord) sur environ 8 km. Tournez à gauche (ouest) sur l'avenue Whyte et poursuivez sur 9 pâtés de maisons jusqu'à la 112e Rue, à l'angle sud-est du campus principal (campus nord). De là, Campus Tower est situé à 5 pâtés de maisons directement vers le nord. Le Centre Lister est à 5 pâtés de maisons au nord et à 4 pâtés de maisons à l'ouest.

...Jusqu'en ville (Chateau Lacombe)

Suivez le boul. Gateway (nord) sur environ 8,5 km. Tournez à droite sur Saskatchewan Drive et prenez à gauche un virage rapide en épingle sur le chemin Queen Elizabeth Park. Une fois passé la rivière, prenez tout de suite à droite sur la 95e Avenue, qui devient le chemin Rosedale et tourne vers le nord. Après 400 m, allez tout droit jusqu'au chemin Bellamy Hill et sortez de la vallée de la rivière. Le Chateau Lacombe est sur la droite, en haut de la côte.

Stationnement

L'espace de stationnement le plus près du CCIS est le Windsor Car Park (WCP), parcs V et E. On accède par la promenade Saskatchewan Drive au parc E, où le tarif est de 1,25 \$/15 min.; on accède par la 116e Rue au WCP et au parc V : le tarif y est de 14 \$/jour ou 1 \$/15 min. Les stationnements sont hautement surveillés 24 h sur 24.

EN TAXI :

Les taxis offrent des transferts à frais fixe entre l'Aéroport et la ville (voir <http://flyeia.com/coming-and-going/taxis-and-limos>). Au moment d'imprimer cette note, la course de taxi entre l'aéroport et le campus de l'Université de l'Alberta était de 55 \$, et de 46 \$ entre le campus de l'Université de l'Alberta et l'aéroport. La durée du trajet est d'environ une demi-heure. Voici les numéros des entreprises de taxi desservant l'Aéroport : 24-7 Taxi Line : 780-442-4444; Airport Taxi Service : 780-890-7070; Co-op Taxi Service : 780-425-2525; Greater Edmonton Taxi Service : 780-462-3456; et Air Limousine : 780-989-7099.

PAR LA NAVETTE SKY :

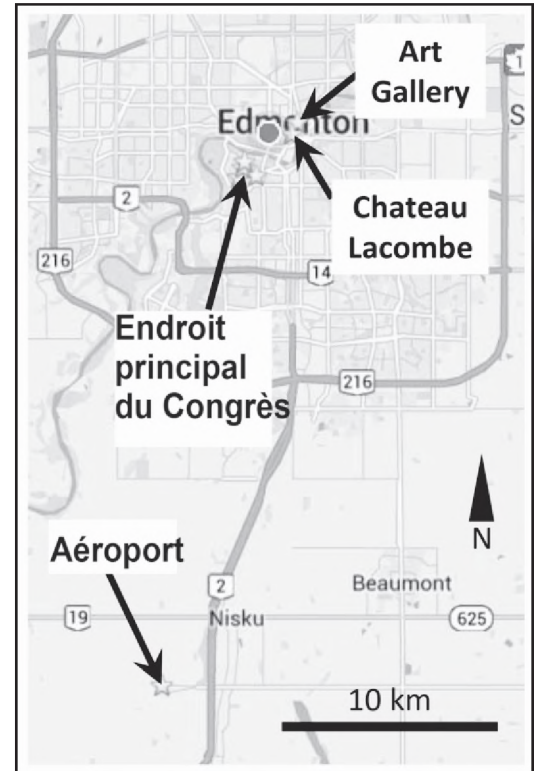
La navette Sky (<http://edmontonskyshuttle.com/>) offre un service d'autobus entre l'Aéroport et divers endroits et les grands hôtels d'Edmonton. La durée du trajet est d'environ 45 minutes. Le tarif adulte aller simple est de 18 \$ et l'aller-retour, de 30 \$. Le comptoir de la navette Sky est situé près de la porte 7, au niveau des Arrivées. Sur le campus, les endroits où l'on peut l'emprunter et en descendre sont le Centre Lister, HUB Mall sud et l'hôpital universitaire (U of A Hospital). Veuillez composer le 780-465-8515 un jour à l'avance pour réserver un lieu de ramassage au départ d'Edmonton pour l'Aéroport.

Edmonton Transit (ligne 747) + train léger sur rail (LRT, métro) :

<http://flyeia.com/coming-and-going/bus-and-shuttles/route-747-bus-service>

Le Edmonton Transit System (ETS) a un service d'autobus (ligne 747) qui relie l'Aéroport et le Century Park Transit Centre (terminal sud de la ligne Capital du LRT) sept jours sur sept de 16 h 10 à 0 h 30. La durée du trajet est d'environ une demi-heure. Le tarif aller est de 5 \$, payable en espèces à l'embarquement, à l'extérieur de la porte 8 au niveau des Arrivées. À Century Park, vous pouvez acheter un billet du ETS pour 3,20 \$ et prendre le train LRT, direction Université, jusqu'au campus principal (14 minutes). Descendez à la gare Health Sciences/Jubilee pour le Centre Lister ou à la gare Université pour les parties est et sud du campus principal.

Les bureaux d'inscription et d'information se trouvent dans le foyer de l'étage L2 de l'immeuble du CCIS. Voir page 5 pour les heures d'ouverture.



This map shows the downtown area of Edmonton, Alberta, with the North Saskatchewan River flowing through it. Key locations marked include the Art Gallery of Alberta, Chateau Lacombe Hotel, CCIS, Herzberg, Lister, Campus Tower, and the University of Alberta. A scale bar indicates 1 km, and a north arrow is present.

UNIVERSITY OF ALBERTA / UNIVERSITÉ DE L'ALBERTA

Food/coffee:

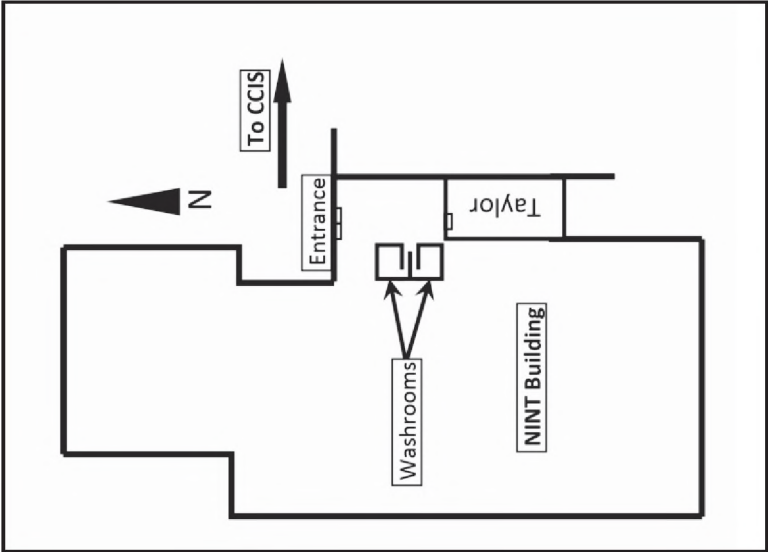
- 1) Tim Hortons 7:30-14:30
- 1) Mr. Sub 10:00-14:00
- 2) Faculty Club
- 3) Starbucks 7:30-15:00
- 4) CAB food is closed in summer
- 4) Starbucks 7:30-15:00
- 4) Tim Hortons 7:00-15:00
- 5) Food trucks in Quad (also site of welcome BBQ)
- 6) SUB: RATT (Bar), L'Express, Taco Time, Subway, Opa, Marco's, Edo, Daily Grind
- 7) HUB Mail: 19 food vendors; mix of chain and independent
- 8) Lister: Pizza 73, Grill Works, Fat Franks, Extreme Pita, Booster Juice; all 7:00-15:00.
- 9) Earl's.
- 10) Chain fast food (Booster Juice, Good Earth Bakery, Rodeo Burger, Sherlock Holmes, Wendy's/Tim's, Subway, Press'd Sandwich).

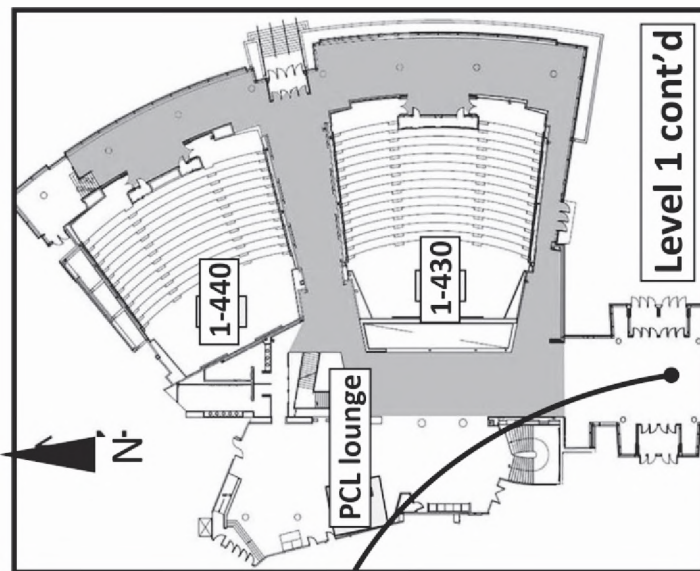
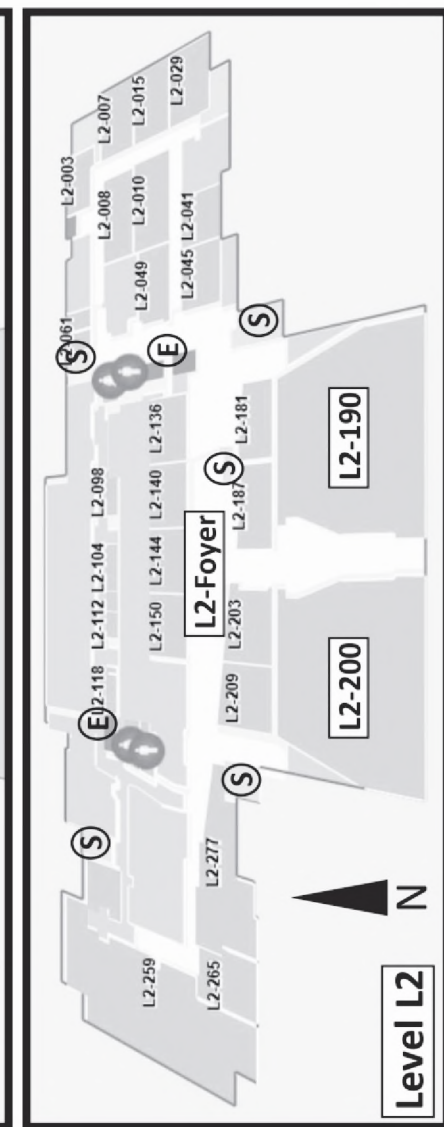
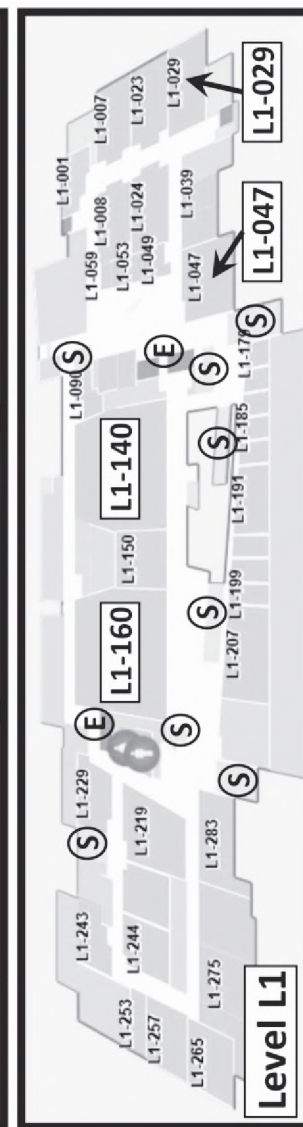
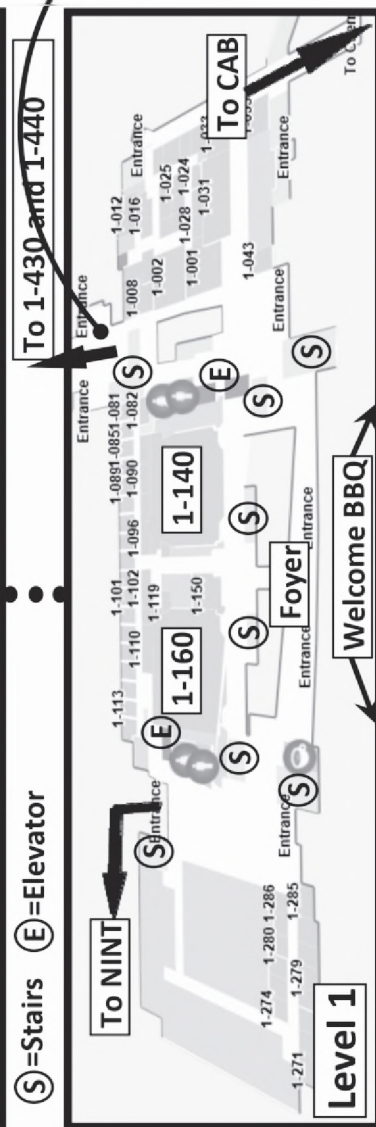
Main buildings:

CCIS – main venue of talks
SUB – Herzberg lecture and reception (Myer Horowitz theatre + Dinwoodie Lounge)
Lister – residence

Parking:
Enter from 116 St for **Lot V** and **WCP** (Windsor Car Park) at \$14/day. Enter from Sask. Dr. for **Lot E** at \$1.25/15min.

Transit:
LRT stop:
A – Health Science/Jubilee
B – University
University Transit Centre





Centennial Centre for Interdisciplinary Science (CCIS)

Layout of Lower levels, ground level, and 4th floor, with important rooms marked.

NOTE: Poster session will either be in Level 1 Foyer or PCL lounge.

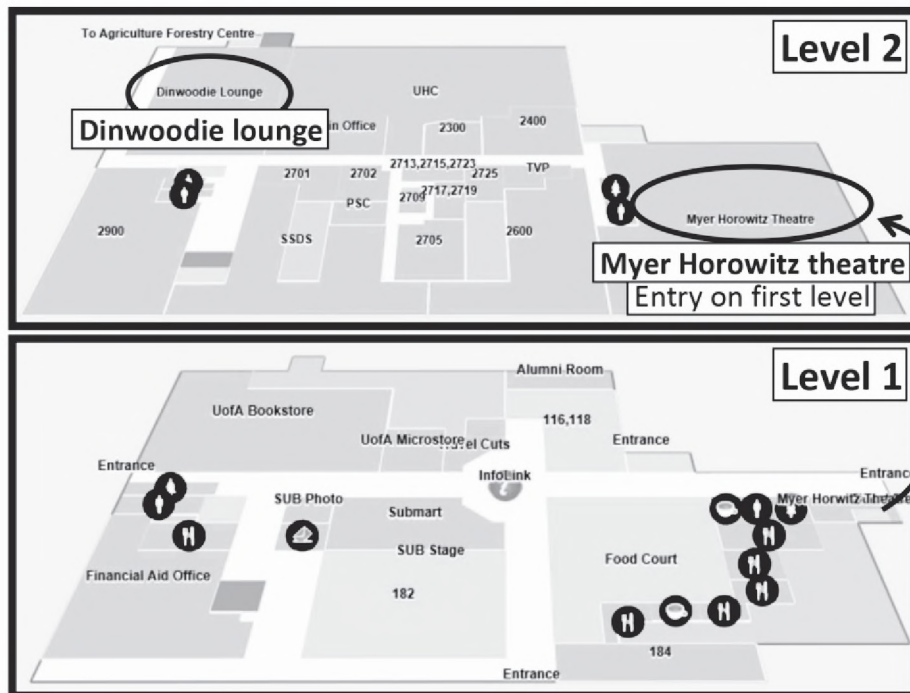
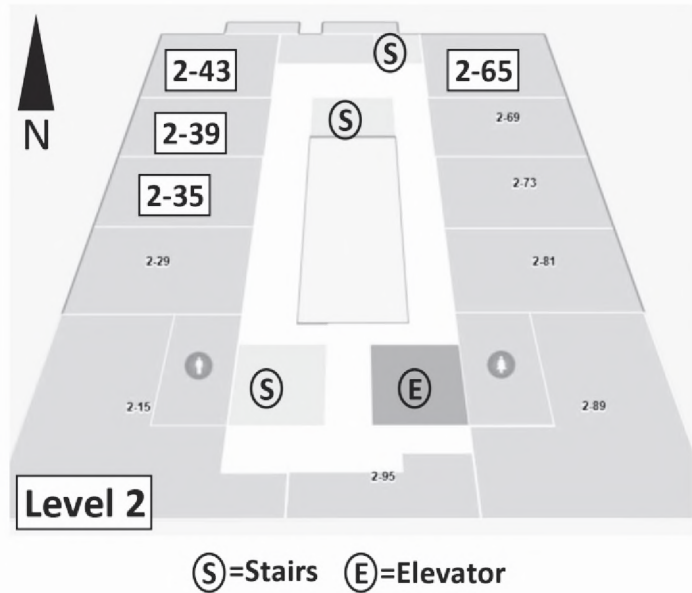
Plans des étages inférieurs, du rez-de-chaussée et du quatrième étage : les salles importantes sont marquées.

NOTE : La session d'affiches aura lieu soit dans le foyer du niveau L1 ou soit dans le salon PCL.

Central Academic Building (CAB)

Layout of second level, with important rooms marked.

Plan du deuxième étage : les salles importantes sont marquées.



Student Union Building (SUB)

Layout of first and second level, with important rooms circled.

Plans des premier et deuxième étages : les salles importantes sont encerclées

The 70th CAP Annual Congress 70^e Congrès annuel de l'ACP

Information / Programme



(See page 18 for the Session Codes /
Voir les indicatifs des sessions à la page 18)

2015 CAP Congress / Congrès de l'ACP 2015

Technical Program Committee / Comité du programme technique

Chair / Président	A. Sarty	adam.sarty@smu.ca
Atmospheric & Space Physics / physique atmosphérique et de l'espace	R. Marchand	rmarchan@ualberta.ca
Atomic, Molecular and Optical Physics, Canada / physique atomique, moléculaire et photonique, Canada	C. Rangan	rangan@uwindsor.ca
Condensed Matter and Materials Physics / physique de la matière condensée et des matériaux	M. Berciu	berciu@phas.ubc.ca
History of Physics / histoire de la physique	J. Barrette	jean.barrette@mcgill.ca
Industrial and Applied Physics / physique industrielle et appliquée	R. Roy	rene.roy@phy.ulaval.ca
Instrumentation and Measurements Physics / physique des instruments et mesures	K. Michaelian	michaeli@nrcan.gc.ca
Medical and Biological Physics / physique médicale et biologique	M. Rheinstadter	rheinstadter@mcmaster.ca
Nuclear Physics / physique nucléaire	Z. Papandreou	zisis@uregina.ca
Particle Physics / physique des particules	J-F. Arguin	arguin@lps.umontreal.ca
Physics Education / enseignement de la physique	C. Kalman	calvin.kalman@concordia.ca
Plasma Physics / physique des plasmas	C. Xiao	chijin.xiao@usask.ca
Surface Science / science des surfaces	M. Gallagher	mark.gallagher@lakeheadu.ca
Theoretical Physics / physique théorique	A. Dasgupta	arundhati.dasgupta@uleth.ca
Women in Physics / Femmes en physique	S. Ghose	sghose@wlu.ca
Science Policy / Politique scientifique	K. Poduska	kris@mun.ca
Treasurer / Trésorier	D. Lockwood	david.lockwood@nrc-cnrc.gc.ca

Local Organizing Committee / Comité organisateur local

Co-Chairs / Présidents conjoints	C. Krauss / F. Marsiglio
Treasurer / Trésorier	D. Schmitt
Teachers' Workshop / Ateliers des enseignants	I. Isaac
Exhibitors / Exposants	F. Hegmann / I. Isaac
Signage / Affichage	R. Marchand
Welcome BBQ Organizers / Coordonnateurs de BBQ	R. Moore
Herzberg Lecture Coordinator / Coordonnateur de la conférence Herzberg	F. Marsiglio
Recognition Reception Coordinator / Coordonnateurs du reception du reconnaissance	D. Grant
Poster Session Coordinator / Coordonnateur(rice) de la session d'affiches	L. LeBlanc / R. Marchand
Room Coordinator / Coordonnateur de salle de conférence	C. Krauss
Catering / Coordonnateur(rice) pour traiteur	D. Grant / S. Morsink
Housing Coordinator / Coordonnateur de l'hébergement	C. Krauss / R. Marchand
Volunteer Coordinator / Coordonnatrice des bénévoles	S. Morsink
Program and Web Local Information /	W. Hiebert

CAP Office Staff / Personnel de l'ACP

Executive Director / Directrice exécutive	F.M. Ford	cap@uottawa.ca
Program Manager / Chef de programme	D. Legault	capmgr@uottawa.ca
Membership Coordinator / Coordinatrice d'adhésion	C. Etheve-Meek	capmem@uottawa.ca

General Information / Renseignements généraux

2015 CAP Congress	Canadian Association of Physicists
University of Alberta	Association canadienne des physiciens et physiciennes
Dept. of Physics, CCIS 4-205	Suite/Bur. 112, McDonald Bldg., Univ. of d'Ottawa
Tel/Tél : Carsten Krauss (780) 492-7610	150 Louis Pasteur Pvt., OTTAWA ON K1N 6N5
e-mail/courriel : carsten@ualberta.ca	Tel./Tél. : (613) 562-5614; Fax/télé. : (613) 562-5615
internet : http://www.cap.ca/en/congress/2015	e-mail/courriel : cap@uottawa.ca internet : www.cap.ca

NOTES TO DELEGATES

ABSTRACTS

For this year's congress, the Program Committee has used the Indico software to handle abstracts and put together the final program. For the printed program, only the basic information needed to get you to a presentation is given. For poster presentations, which are grouped by division and held in one location, the title and presenter are given, while for oral presentations, the title, presenter and scheduled time and room are given. All other information, including all co-authors and full abstracts are found via the Indico website. You can also obtain a list of presenters and authors of all papers on the web. Visit <http://indico.cern.ch/e/CAP2015> to access the different lists.

NAME BADGES

All registered conference participants will be issued a name badge and a copy of the conference program. **Badges must be worn at all congress events** to identify registered participants. One-day registrants will be issued coloured name badges to identify the day of participation. Individuals whom you may ask for assistance will be designated by coloured ribbons as noted below.

Monday:	Orange Badge	Local Organizing Committee:	Lime green ribbon
Tuesday:	Green Badge	Student Volunteers:	Red t-shirts and turquoise ribbon
Wednesday:	Purple Badge	CAP Executive:	Green ribbon
Thursday:	Blue Badge	Student Competition Judges:	Red ribbon
Friday:	Red Badge	Exhibitors:	Purple ribbon
HS Teachers Workshop (Tues.): Yellow Badge			

REGISTRATION

The congress registration and information desk will be located in the L2 Foyer of the CCIS Building and will be open as follows:

Monday, June 15	08h00 - 17h30
Tuesday, June 16	08h00 - 17h30
Wednesday, June 17	08h00 - 16h30
Thursday, June 18	08h00 - 16h00
Friday, June 19	08h00 - 11h00

PARKING

The closest parking to CCIS is Windsor Car Park (WCP), Lot V, and Lot E. Lot E is accessed via Saskatchewan Drive and is \$1.25/15 min; WCP and Lot V are accessed via 116 St. and are \$14/day or \$1.00/15 min. Parking is heavily monitored around the clock.

E-MAIL ACCESS

Visitors can connect to Guest@UofA wireless network (<https://ist.ualberta.ca/cnc/wifi#guest>). This will provide access to standard web surfing and common VPN clients. Those who have access to Eduroam can also connect this way, but usernames must be qualified by your home institution's domain name. Your username is your username at your home institution followed by your university's domain name user@domainname.ca; instructions for how to connect are here <https://ist.ualberta.ca/selfhelp/howto/eduroam-howto>.

WHERE TO EAT

See map on page vi for nearby lunch spots or www.cap.ca/en/congress/2015 for restaurant list.

EXHIBITORS / SPONSORS

(see lists on inside front cover and page ii)

ORAL PRESENTATION INSTRUCTIONS

All technical session rooms are equipped with projectors, screens, document cameras or whiteboards, internet access, and the ability to connect a laptop. In addition, the Congress will have a computer in each room. Technical assistance will be available either through room monitors, roving technical assistants or at the Registration desk. Presenters are asked to put their talks into PDF or PowerPoint format and upload them via the congress program web site at least a day prior to the start of the session (instructions below). They could also bring a PDF backup on a USB key to be downloaded onto the computer 30 minutes prior to the start of the session. Presenters are strongly encouraged not to use their own computers. Those who do use their own computers risk having their talk shortened if technical difficulties arise, as we need to adhere to the published schedule. (Apple computer users must provide their own VGA adapter.) Since talks must be kept to the schedule, you are encouraged to arrive for your session at least 15 minutes early or test the presentation in advance. Assistance will be available through a student volunteer in the room.

POSTER PRESENTATION INSTRUCTIONS

The CAP poster session will be held on Wednesday, June 17, from 19h00 to 22h00 in the CCIS Ground Floor Foyer (east end) at University of Alberta.

Posters can be set up starting at 08h00, but no later than noon on Wednesday, June 17, to be considered for the Student Competition. Posters should have a maximum size of 4' high x 3' wide. Poster boards will be numbered and presenters will be issued with board numbers in advance. Presenters will be required to remove their posters at the latest on Wednesday, June 17, before 10:00 p.m.

The poster session features a light snack and a bar service. All conference attendees who indicated they are attending the Poster Session will receive one drink ticket which may be redeemed for one beer, one glass of wine or a non-alcoholic beverage. A cash bar will also be available.

STUDENT COMPETITION INSTRUCTIONS

ORAL STUDENT COMPETITORS

All oral competition entries will be presented and judged initially in the parallel technical sessions as scheduled from 13h45 Monday through 14h30 Thursday. The list of the winners of the divisional oral competitions, together with the list of the 8 finalists for the Friday morning CAP Best Student Oral Presentation Competition, will be posted Thursday June 18th around 16h45 at the CAP desk in the registration area and on the Congress website (<http://www.cap.ca/en/congress/2015>).

The winners of the divisional competitions and the eight oral finalists will be formally recognized and presented with their award confirmation letter at the Recognition Reception which takes place that evening (Thursday June 18 at the Art Gallery of Alberta). All winners must present themselves at the CAP desk between 16h45 and 17h15 to pick up their complimentary ticket (note the policy statement below). The eight oral finalists will participate in a final competition on Friday morning, with the top three overall prize winners announced at 13h30 just before the official close of Congress.

POSTER STUDENT COMPETITORS

Judging of the posters (no students present) will take place on Wednesday. The judges will determine the semi-finalists from each division between 13h45 and 15h30.

Between 18h00 and 19h00 on Wednesday, the judges will determine the six finalists in the CAP poster competition, each of whom will be visited that evening (starting at 19h00) by the full judging panel for oral interviews. During that visit, each of the six finalists will receive a ticket to the Recognition Reception at the Art Gallery of Alberta (see policy statement below) on Thursday evening where the rankings will be announced and prizes awarded.

All poster semi-finalists MUST be at their posters on Wednesday evening between 19h00 and 21h00 as they may be visited by a judge for the determination of division prizes.

POLICY STATEMENT ON PRIZE WINNER TICKETS

Those students who have already purchased a reception ticket can either give the extra ticket to a friend or sell the extra ticket to a delegate on the waiting list (who have also been asked to be at the registration desk at that time to see if tickets are available for purchase). Since the reception tickets are pre-purchased by the CAP, should a winner not present themselves before 17h15 on June 18 to claim their reception ticket, it will be returned to the CAP's inventory of tickets available for sale to delegates, with no compensation owed to the student.

TO UPLOAD YOUR PRESENTATION TO THE CAP CONGRESS INDICO WEBSITE

Go to <http://indico.cern.ch/e/CAP2015>.

Log in to your account.

Select "My contributions" under the "My Conference" link on the left.

Once in the "My contributions" area, click VIEW.

To submit material, click on the Pencil icon beside Files.

Click "Add Material", browse to select your file, choose the material type (slides, video etc.).

Click "Create Resource".

Your presentation will now appear in the contribution details and will be accessible through the session timetable.

NOTE: Any presenter who does not want their presentation to be publically available should bring it to Congress on a memory stick and NOT upload it to the Indico site.

NOTES AUX DÉLÉGUÉS

RÉSUMÉS

Pour le congrès de cette année, le comité de programme s'est servi du logiciel Indico pour traiter les résumés et assembler le programme final. Dans le programme imprimé, seule l'information nécessaire pour vous diriger vers une présentation est donnée. En ce qui concerne les présentations d'affiches, elles sont regroupées par division, ont lieu à un seul endroit et les titres et présentateurs seront fournis. Tandis que pour les présentations orales, on donne le titre, le présentateur ainsi que l'heure prévue et de quelle salle il s'agit. Toute autre information, y compris les co-auteurs et les résumés complets, se trouve sur le site Web Indico. Vous pouvez aussi obtenir une liste des présentateurs et auteurs de toutes les contributions sur le Web. Rendez-vous à <http://indico.cern.ch/e/CAP2015>

INSIGNES PORTE-NOM

Tous les participants inscrits au congrès recevront un porte-nom et une copie du programme. Cet insigne devra être porté au cours de tous les événements du congrès afin d'identifier le participant inscrit. Des insignes de diverses couleurs seront remis aux titulaires d'un jour pour identifier le jour de participation. Les organisateurs et le personnel seront identifiés par un ruban de couleur.

Lundi :	porte-nom orange	Comité organisateur local :	ruban vert lime
Mardi :	porte-nom vert	Étudiants bénévoles :	ruban turquoise et gaminet rouge
Mercredi :	porte-nom pourpre	Exécutif de l'ACP :	ruban vert
Jeudi :	porte-nom bleu	Juges de la compétition des étudiants :	ruban rouge
Vendredi :	porte-nom rouge	Exposants :	ruban pourpre
Atelier des enseignant(e)s (mardi) :		porte-nom jaune	

INSCRIPTION

Le comptoir des inscriptions et informations du congrès se situe dans le foyer de l'étage L2 de l'immeuble du CCIS. Les heures d'ouverture sont :

Lundi 15 juin	08h00 à 17h30
Mardi 16 juin	08h00 à 17h30
Mercredi 17 juin	08h00 à 16h30
Jeudi 18 juin	08h00 à 16h00
Vendredi 19 juin	08h00 à 11h00

STATIONNEMENT

L'espace de stationnement le plus près du CCIS est le Windsor Car Park (WCP), parcs V et E. On accède par la promenade Saskatchewan Drive au parc E, où le tarif est de 1,25 \$/15 min.; on accède par la 116e Rue au WCP et au parc V : le tarif y est de 14 \$/jour ou 1 \$/15 min. Les stationnements sont hautement surveillés 24 h sur 24.

ACCÈS INTERNET

Les visiteurs peuvent se connecter au réseau wifi Guest@UofA (<https://ist.ualberta.ca/cnc/wifi#guest>), qui donne accès à la navigation sur Internet et aux clients de réseaux privés virtuels. Ceux qui ont accès à Eduroam peuvent aussi se connecter de cette manière, mais les noms d'utilisateurs doivent être attestés par le nom de domaine de leur propre établissement. Votre nom d'utilisateur est celui de votre établissement d'origine, suivi du nom de domaine de votre université user@domainname.ca; vous trouverez les informations sur la manière de vous connecter sur le site suivant : <https://ist.ualberta.ca/selfhelp/howto/eduroam-howto>.

ENDROITS OÙ MANGER

Voir les endroits où déjeuner sur la carte de la page vi, ou la liste des restaurants sur www.cap.ca/en/congress/2015

EXPOSANTS / COMMANDITAIRES

(voir l'intérieur de la page couverture et la page ii)

INSTRUCTIONS POUR LES PRÉSENTATIONS ORALES

Toutes les salles des sessions techniques sont équipées de projecteurs, d'écrans, de caméras de documents ou tableaux blancs, d'accès à l'internet, et de prises d'ordinateurs. De plus, il y aura un ordinateur par salle. Une assistance technique sera disponible via les interphones, les assistants techniques ou au comptoir des inscriptions et informations. Nous demandons aux orateurs de convertir leur présentation en format PDF ou PowerPoint et de la télécharger sur le site Web du programme du Congrès au moins une journée à l'avance (voir les directives plus bas). Une copie de secours de la présentation en format PDF peut aussi être apportée sur une clé USB et installée sur l'ordinateur 30 minutes avant le début de la session. Nous recommandons fortement aux orateurs de ne pas utiliser leur ordinateur personnel. Ceux qui utiliseront malgré tout leur ordinateur personnel courent le risque de voir leur présentation raccourcie en cas de difficultés techniques afin de maintenir l'horaire strict des sessions parallèles. (Les utilisateurs d'ordinateurs Apple doivent fournir leur propre adaptateur VGA.) En vue de bien respecter l'horaire, nous vous encourageons à arriver au moins 15 minutes à l'avance à votre séance et à tester et chronométrer votre présentation. Vous aurez accès à du soutien grâce à un étudiant bénévole dans la salle.

INSTRUCTIONS POUR PRÉSENTATION D'AFFICHE

La séance de présentation des affiches se tiendra le mercredi 17 juin de 19h à 22h dans le foyer de l'étage L2 de l'immeuble du CCIS de l'Université de l'Alberta.

L'étalage des affiches pourra se faire dès 8h00 mais au plus tard avant midi le mercredi 17 juin pour être considérées pour la compétition étudiante. Les dimensions maximales des affiches sont de 121.92 cm (48 po) de haut x 91.44 cm (36 po) de large. Les placards d'affichage seront numérotés et on vous attribuera à l'avance un numéro de placard. Vous devrez retirer votre affiche au plus tard le mercredi 17 juin, 22h00.

La séance des affiches sera agrémentée d'un léger goûter et d'un service de consommation. Tout participant au congrès ayant indiqué vouloir assister à la séance des affiches recevra un billet lui donnant droit à une bière, un verre de vin ou une boisson non alcoolisée. Il y aura aussi un bar payant.

LES MEILLEURES PRÉSENTATIONS ÉTUDIANTES

LES COMPÉTITEURS POUR LA MEILLEURE PRÉSENTATION ORALE ÉTUDIANTE

Tous les exposés des compétiteurs pour la meilleure présentation orale seront d'abord présentés lors d'une séance technique parallèle qui se tiendra, comme prévu, entre 13h45 lundi matin à 14h30 jeudi après-midi. Les gagnants des compétitions divisionnaires de présentations orales et d'affiches ainsi que la sélection des 8 finalistes pour la séance finale de la compétition orale du vendredi matin seront annoncés le jeudi 18 juin vers 16 h 45 au bureau de l'ACP situé dans le secteur du comptoir d'inscription et sur le site web du congrès (<http://www.cap.ca/fr/congres/2015>).

Les gagnants des concours de division et les huit finalistes des compétitions orales seront officiellement présentés et recevront leur lettre de confirmation de prix lors du Gala Reconnaissance qui a lieu le même soir (jeudi 18 juin à la *Art Gallery of Alberta*). Tous les gagnants doivent se présenter au bureau de l'ACP entre 16h45 et 17h15 pour ramasser leur billet gratuit (notez l'énoncé de la politique ci-dessous).

LES COMPÉTITEURS POUR LA MEILLEURE PRÉSENTATION D'AFFICHE ÉTUDIANTE

L'évaluation des affiches par les juges (sans la présence d'étudiants) se tiendra le mercredi. Les juges détermineront les demi-finalistes de chaque division entre 13h45 et 15h30.

Entre 18h00 et 19h00 le mercredi, les juges détermineront les six finalistes du concours d'affiches. À partir de 19h00, les juges visiteront chaque finaliste pour une entrevue orale. Pendant cette visite, chaque finaliste recevra un billet pour le Gala Reconnaissance à la *Art Gallery of Alberta* le jeudi soir (voir l'énoncé de la politique ci-dessous) où le classement sera annoncé et les prix seront remis.

Tous les demi-finalistes DOIVENT se présenter près de leur affiche entre 19h00 et 21h00 le mercredi soir; l'affiche des demi-finalistes peut être visitée par un juge pour la détermination de prix de division.

ÉNONCÉ DE LA POLITIQUE SUR LES BILLETS DE DES GAGNANTS DE PRIX

Les étudiants qui ont déjà acheté un billet pour le Gala Reconnaissance peuvent soit donner le billet supplémentaire à un ami ou vendre le billet supplémentaire à un délégué sur la liste d'attente (qui ont également été invités à être au bureau d'enregistrement à ce moment-là pour voir si les billets sont disponibles à l'achat). Comme les billets du Gala Reconnaissance sont prépayés par l'ACP, si un gagnant ne se présente pas avant 17h15 le 18 juin pour réclamer son billet du Gala, le billet sera retourné à l'inventaire de billets disponibles à la vente aux délégués de l'ACP, sans compensation due à l'étudiant.

POUR TÉLÉVERSER VOTRE PRÉSENTATION SUR LE SITE DU PROGRAMME DU CONGRÈS

Rendez-vous sur le site du programme du Congrès au : <http://indico.cern.ch/e/CAP2014>.

Connectez-vous à votre compte.

Cliquez sur « My Contributions » sous le lien « My Conference », sur la gauche.

Une fois dans la fenêtre « My Contributions », cliquez sur « VIEW ».

Pour soumettre un fichier, cliquez sur l'icone crayon à côté de « FILES ».

Cliquez sur « Add Material », parcourez et choisissez le fichier, choisissez le format (« type »), puis cliquez sur « Create Resource ».

Votre présentation apparaîtra dans la fenêtre « contribution details » et sera accessible via l'horaire de la session.

NOTE : Tout auteur de présentation qui ne veut pas que son exposé soit disponible au public doit l'apporter au Congrès sur clé USB et NE PAS le téléverser sur le site Indico..

BEST STUDENT PRESENTATION COMPETITIONS *COMPÉTITIONS POUR LES MEILLEURES COMMUNICATIONS ÉTUDIANTES*

Delegates can look forward to an excellent series of talks and poster presentations at the 2015 congress delivered by participants in the various CAP divisional competitions as well as the CAP best overall competitions. Student competition entrants are identified as such in the congress program (G* for a Graduate student competitor or U* for an undergraduate student competitor). Full details of eligibility and prizes offered to student competitors are available on the CAP website.

Prizes in subject categories are offered by the divisions of Atmospheric and Space Physics (DASP), Atomic, Molecular, and Optical Physics, Canada (DAMOPC), Condensed Matter and Materials Physics (DCMMP), Industrial and Applied Physics (DIAP), Instrumentation and Measurement Physics (DIMP), Medical and Biological Physics (DMBP), Nuclear Physics (DNP), Particle Physics (PPD), Plasma Physics (DPP), Surface Science (DSS) and Theoretical Physics (DTP), as well as the Committee to Encourage Women in Physics (CEWIP).

Best overall prizes are awarded by the CAP in both the oral and poster categories.

All oral competition entries will be presented initially in the parallel technical sessions as scheduled from Monday morning through Thursday afternoon. Poster competition entries will be presented in the Wednesday evening poster session.

The winners of divisional oral and poster competitions, the list of the six CAP poster finalists, and the list of the eight CAP oral finalists for the Friday morning oral competition final session will be announced on Thursday, June 18 at 16h45 at the CAP desk in the registration area. At that time, each winner will be given a ticket to the recognition reception which takes place that evening (Thursday June 18 at the Art Gallery of Alberta), where they will be formally recognized and given a prize, and the top three CAP poster winners will be announced.

The eight finalists in the CAP oral competition will participate in a final competition on Friday morning, with the top three overall prize winners announced at 13h30, just before the official close of congress.

The judging of all student competition entries will be carried out by a panel appointed by the Chief Judge upon the recommendation of the CAP subject Division Chairs. Judges will be identified via a distinct red ribbon on their name badge. All entries will be assessed using standardized criteria and weightings, to include: content, clarity, quality and impact of presentation, and response to questions. There will be a subpanel of eight judges for the CAP oral competition final, selected from the subject divisions represented in the final competition.

The CAP thanks everyone for their participation and wishes good luck to all student competition presenters!

Les délégués participant au congrès 2015 peuvent s'attendre à y trouver d'excellentes présentations orales ainsi qu'une présentation d'affiches de haut calibre tant au niveau des compétitions des diverses divisions qu'au niveau des compétitions globales de l'ACP. Les étudiants participant à la compétition sont identifiés comme tels dans le programme du congrès (G* étudiant diplômé ou U* étudiant de 1er cycle). De plus amples renseignements sur l'admissibilité à la compétition, ainsi que les prix qui y sont offerts se trouvent sur le site Web de l'ACP.

Les prix par sujets sont offerts par les divisions suivantes : physique atmosphérique et de l'espace (DPAE), physique atomique, moléculaire et photonique, Canada (DPAMPC), physique de la matière condensée et matériaux (DPMCM), physique industrielle et appliquée (DPIA), physique des instruments et mesures (DPIM), physique médicale et biologique (DPMB), physique nucléaire (DPN), physique des particules (PPD), physique des plasmas (DPP), science des surfaces (DSS), physique théorique (DPT), ainsi que par le Comité pour encourager les femmes en physique (CEFEP).

L'ACP offre ses prix globaux aux meilleurs à la fois dans la catégorie orale et des affiches.

Tous les exposés des compétiteurs pour la meilleure présentation orale seront d'abord présentés lors d'une séance technique parallèle qui se tiendra, comme prévu, du lundi matin au jeudi après-midi. La présentation des affiches des participants à la compétition se fera lors de la séance des affiches du mercredi soir.

Les gagnants des compétitions divisionnaires de présentations orales et d'affiches, la sélection des 6 finalistes de la compétition affiche, ainsi que la sélection des 8 finalistes pour la séance finale de la compétition orale du vendredi matin seront annoncés le jeudi 18 juin à 16 h 45 au bureau de l'ACP situé dans le secteur du comptoir d'inscription. C'est à cette occasion que leur seront remis des billets leur permettant de participer au Gala Reconnaissance qui se tiendra la même soir (jeudi 18 juin à la *Art Gallery of Alberta*), lors duquel ils seront présentés de façon formelle et où on annoncera le nom des gagnants des prix aux participants ayant présenté les trois meilleures affiches globales.

Les huit finalistes participeront ensuite à la compétition finale, se tenant le vendredi matin et où seront annoncés à 13 h 30 les noms des trois grands lauréats des différentes catégories, juste avant la clôture officielle du congrès.

L'évaluation de toutes les présentations étudiantes d'effectuera par un jury nommé par le juge en chef sous la recommandation des présidents des divisions de l'ACP. Les membres du jury seront identifiés par un insigne porte-nom orné d'un ruban rouge. Toutes les présentations seront évaluées en fonction de critères standardisés et objectifs comme le contenu, la clarté, la qualité et l'impact de la présentation ainsi que la réponse aux questions. Un sous-jury de huit membres sera formé pour la finale de la compétition orale de l'ACP, les membres seront choisis au sein des divisions représentées à la compétition finale.

L'ACP tient à remercier chaleureusement tous les participants et souhaite bonne chance à tous les étudiants présentant leur réalisation.

CAP CONGRESS 2015
Listeners, Speakers, and Session Chairs

SPECIAL INSTRUCTIONS FOR TIMED PAPERS

In order to ensure that listeners can transfer from one session to another, the oral presentations will be timed. As a courtesy to all conference participants, we would ask that the following simple guidelines be observed. Your cooperation is appreciated.

EVERYONE - Ensure that you are wearing your Congress name badge at ALL times.

LISTENERS

- Please arrive at a lecture room promptly before the next paper is to begin.
- Please leave a session unobtrusively, preferably during or at the end of the question and answer period.

SPEAKERS

- Make your computer arrangements before the start of your session.
- Be ready to start your talk on time.
- Pace your talk to end well before the next talk begins: about 3 minutes for a contributed paper and about 5 minutes for an invited paper.
- Answer questions and comments as efficiently as possible; defer any follow-up discussions to be continued after the session or in a health break.
- Obey your session chair's instructions.

SESSION CHAIRS

- Arrive at the session room no later than 15 minutes before your session begins. Check that all needed projection and auxiliary equipment are present and operational.
- Introduce yourself to the assistant in the room and verify that the session timer is working.
- Check that your speakers and, if applicable, judges and student competitors (marked with * in program), are present and correctly identified before the session starts.
- Start each paper right on time.
- Make sure each speaker stops talking well before the next paper begins.
- Keep the question periods interesting, lively, and productive. Read over the papers in your session beforehand. If necessary, prepare comments and questions.
- Do not let any discussion period get out of hand, either on the speaker's or the questioner's side.
- Under no circumstances may the order of giving the papers differ from that given in the program. If a speaker fails to appear, either recess the session until the start of the next scheduled talk, or introduce an ad-hoc discussion of earlier presentations to fill the time slot.
- Make note in your program if a speaker fails to show or a replacement speaker was sent. Send this information to the CAP office (in person at the CAP desk at Congress or by e-mail to cap@uottawa.ca no later than one week following congress).

CONGRÈS DE L'ACP 2015
Auditeurs, conférenciers et présidents de sessions

INSTRUCTIONS SPÉCIALES POUR LES PRÉSENTATIONS CHRONOMÉTRÉES

Pour s'assurer que les auditeurs puissent passer d'une session à une autre, les présentations orales seront chronométrées. Par courtoisie envers l'ensemble des participants, nous vous demandons de suivre les directives suivantes, et nous vous remercions de votre collaboration.

TOUS - Assurez-vous de toujours avoir votre porte-nom du congrès en évidence.

PARTICIPANTS

- Présentez-vous rapidement à la salle, avant que l'exposé suivant ne commence.
- Quittez la salle discrètement, préférablement pendant ou à la fin de la période de questions.

CONFÉRENCIERS

- Faites vos dispositions informatiques avant le début de votre session.
- Soyez à temps pour débiter votre présentation.
- Planifiez votre exposé de manière à terminer bien avant le suivant: environ 3 minutes pour une présentation contributive et 5 minutes pour une présentation invitée.
- Répondez aux questions et commentaires le plus efficacement possible; reportez les discussions plus longues à la fin de la session ou à la pause-santé.
- Respectez les consignes de votre président de session.

PRÉSIDENTS DE SESSION

- Arrivez à la salle au moins 15 minutes avant le début de la session. Assurez-vous du bon fonctionnement de tout appareil sur les lieux.
- Présentez-vous à l'adjoint(e) de la salle et vérifiez que le chronomètre fonctionne.
- Vérifiez que les conférenciers et, si applicable, les juges et compétiteurs étudiants (indiquée par un * dans le programme), sont présents et correctement identifiés avant le début de la session.
- Annoncez à l'heure exacte le début de chaque exposé.
- Assurez-vous que chaque conférencier cesse de parler bien avant que l'exposé suivant ne commence.
- Animez de manière vivante et productive la période de questions. Lisez d'avance les résumés de votre session. Si nécessaire, préparez des commentaires et des questions.
- Ne laissez ni les questions ni les réponses s'éterniser.
- Sous aucune circonstance l'ordre ou le moment des présentations ne doit différer de celui du programme du congrès. Si un conférencier ne se présente pas, interrompez la session jusqu'au début de l'exposé suivant, ou alors amorcez une discussion impromptue des présentations précédentes.
- Notez dans votre programme les conférenciers qui ne se présentent pas ou qui désignent un substitut. Faites parvenir cette information au personnel de l'ACP (présentez-vous à la réception de l'ACP lors du congrès ou communiquez avec nous la semaine suivante à cap@uottawa.ca).

LUNDI 15 JUIN - 19h30

THÉÂTRE MYER HOROWITZ
UNIVERSITÉ DE L'ALBERTA**CONFÉRENCE COMMÉMORATIVE PUBLIQUE HERZBERG 2015****Miguel Alcubierre**
Institut des sciences nucléaires
Université nationale autonome de Mexico**« Plus rapide que la lumière »**

Dans mon propos, je vous exposerai brièvement certaines notions fondamentales de la théorie de la relativité restreinte d'Einstein, qui fonde toute la physique moderne. En particulier, je me concentrerai sur la notion de causalité et sur ce qui fait que celle-ci implique que rien ne peut voyager à une vitesse supérieure à celle de la lumière dans le vide. J'évoquerai ensuite certaines idées de base qui sous-tendent l'autre grande théorie d'Einstein, celle de la relativité générale, qui est la théorie moderne de la gravité et postule que la géométrie de l'espace-temps est dynamique et que la présence de grandes concentrations de masse et d'énergie produit une « courbure » dans l'espace-temps. Nous verrons ensuite comment cette courbure peut servir de diverses façons à voyager « à une vitesse supérieure à celle de la lumière » en écartant la géométrie de celle de l'espace plat. En particulier, j'examinerai les idées entourant le modèle géométrique d'une « vitesse supraluminique ».

NOTICE BIOGRAPHIQUE

Le professeur Miguel Alcubierre naît à Mexico en 1964. Il obtient son diplôme de physicien de l'Université nationale autonome de Mexico (UNAM) en 1988 et un doctorat en physique de l'Université du pays de Galles en 1994. Il est ensuite professeur auxiliaire pendant plusieurs années à l'Institut Max Planck de physique gravitationnelle de Potsdam, en Allemagne. En 2002, il entre à l'Institut des sciences nucléaires à l'UNAM à titre de professeur titulaire, puis il en devient le directeur en juin 2012. Ses recherches dans le domaine de la relativité numérique ont trait à la simulation computationnelle des systèmes d'astrophysique qui utilisent la théorie de la relativité générale d'Einstein. Dans ce domaine, il se concentre sur l'étude des sources d'ondes gravitationnelles et en particulier sur les collisions de trous noirs. Il est l'auteur de plus de 50 publications et d'un manuel publié par Oxford University Press.

MONDAY, JUNE 15 - 19h30

MYER HOROWITZ THEATRE
UNIVERSITY OF ALBERTA**2015 HERZBERG MEMORIAL PUBLIC LECTURE**

Miguel Alcubierre
National Sciences Institute
National University of Mexico

Faster than the Speed of Light

In this talk I will give a short introduction to some of the basic concepts of Einstein's special theory of relativity, which is at the basis of all of modern physics. In particular, I will concentrate on the concept of causality, and why causality implies that nothing can travel faster than the speed of light in vacuum. I will later discuss some of the basic ideas behind Einstein's other great theory, General Relativity, which is the modern theory of gravity and postulates that the geometry space-time is dynamic and the presence of large concentrations of mass and energy produce a "curvature" in space-time. I will then talk about how the curvature of space-time can be used in several ways to travel "faster than the speed of light" by distorting the geometry away from that of flat space. In particular, I will discuss the ideas behind the geometric model for a "warp drive"

BIOGRAPHICAL NOTE

Prof. Miguel Alcubierre was born in Mexico City in 1964. He obtained his Physicist degree from the National University in Mexico (UNAM) in 1988, and a PhD in Physics from the University of Wales in 1994. He later worked for several years as an Adjunct Professor at the Max Planck Institute for Gravitational Physics in Potsdam, Germany. Since 2002 he joined the Nuclear Sciences Institute at UNAM where he is now a Full Professor, and since June 2012 the Director. His research is in the area of numerical relativity, which is concerned with the computational simulation of astrophysical systems using Einstein's theory of general relativity. In this area he has concentrated on the study of sources of gravitational waves, and particularly black hole collisions. He is author of more than 50 publications, as well as a textbook published by Oxford University Press.

MONDAY, JUNE 15**- CCIS 1-430 -****LUNDI 15 JUIN****SARA SEAGER, MIT**Room: CCIS 1-430
13h00 - 13h45**EXOPLANETS AND THE SEARCH FOR HABITABLE WORLDS**

Thousands of exoplanets are known to orbit nearby stars with the statistical inference that every star in our Milky Way Galaxy should have at least one planet. Beyond their discovery, a new era of "exoplanet characterization" is underway with an astonishing diversity of exoplanets driving the fields of planet formation and evolution, interior structure, atmospheric science, and orbital dynamics to new depths. The push to find smaller and smaller planets down to Earth size is succeeding and motivating the next generation of space telescopes to have the capability to find and identify planets that may have suitable conditions for life or even signs of life by way of atmospheric biosignature gases.

TUESDAY, JUNE 16**- CCIS 1-430 -****MARDI 16 JUIN****CHITRA RANGAN, U. WINDSOR**

(CAP Teaching Medal Winner / Récipiendaire de la médaille d'enseignement de l'ACP)

Room: CCIS 1-430
10h15 - 10h45**GENERATING IDEAS FOR ACTIVE AND EXPERIENTIAL LEARNING IN PHYSICS**

The Physics community has known the importance of Active Learning (AL) for the last twenty years. A recent analysis of 225 studies on AL has demonstrated that "active learning appears effective across all class sizes --- although the greatest effects are in small ($n \leq 50$) classes." Physicists have innovated both technologies and techniques for AL. Yet, most classes, particularly in institutions where research is conducted, are primarily delivered via lectures. Many research-active faculty members do not feel like they have the time or incentive to explore AL methodologies. At the University of Windsor, we have

started a Faculty Network called "Promoters of Experiential, Active, and Research-based Learning" to support our teacher-researcher colleagues in the Faculty of Science. Inspired by the activities of this network, in this session, I will lead a discussion on how very busy, teacher-researchers can adopt proven Active Learning strategies in their own classes.

**ELIZABETH BOSTON, NSERC**Room: CCIS 1-430
11h15 - 11h45

NEWS FROM NSERC - UPDATES ON VARIOUS NSERC ACTIVITIES AND PROGRAMS WILL BE PROVIDED

NOUVELLES DU CRSNG - DES MISES À JOUR À PROPOS DE DIVERS ACTIVITÉS ET PROGRAMMES DU CRSNG SERONT PRÉSENTÉES

COMMUNITY UPDATES**MISES-À-JOUR POUR LA COMMUNAUTÉ****TUES. JUNE 16**
CCIS 1-430
11h45 - 12h15**LI-HONG XU**EVALUATION
GROUP CHAIR
PRÉSIDENTE
DU GROUPE
D'ÉVALUATION**TUES. JUNE 16**
CCIS 1-430
12h15 - 12h30**WILLIAM WHELAN**CAP-NSERC LIAISON
COMMITTEE
COMITÉ DE LIAISON
ACP-CRSNG**WED. JUNE 17**
CCIS 1-430
16h45 - 17h15**ROBERT FEDOSEJEVS**CAP PRESIDENT'S
REPORT / RAPPORT
DU PRÉSIDENT DE
L'ACP

**WICK HAXTON, U. OF WASHINGTON / U. OF CALIFORNIA**CCIS 1-430
10h45 - 11h30**NEUTRINO PHYSICS: ON EARTH AND IN THE HEAVENS**

The discovery 15 years ago that neutrinos have mass and can spontaneously change their flavors has led to intense activity in nuclear and particle physics, including plans for powerful neutrino beams for long-baseline oscillation experiments and for ton-scale ultraclean underground detectors for double beta decay studies. Our improved knowledge of neutrinos has also enabled us to understand better their roles in astrophysics. Supernova neutrinos may be responsible for important nucleosynthesis in the first stars that formed in our galaxy, and solar neutrinos may allow us to determine the metallicity of the primordial gas cloud from which our solar system formed. I will review some of these themes and

their connections, arguing that recent neutrino discoveries are just the beginning of a series of surprises.

**JOHN PAGE, U. OF MANITOBA**

(CAP Brockhouse Medal Winner / Récipiendaire de la médaille Brockhouse de l'ACP)

Room: CCIS 1-430
11h30 - 12h00**EXPLORING WAVE PHENOMENA IN COMPLEX, STRONGLY SCATTERING MATERIALS USING ULTRASOUND**

Waves in complex media are often strongly scattered due to mesoscopic heterogeneities, leading to unusual phenomena which continue to fascinate us and enrich our basic understanding of the wave physics of condensed matter. Examples range from strikingly large variations in wave speeds to unusual refraction and tunneling effects, and even to the complete inhibition of wave propagation, due to disorder, that may occur in very strongly scattering samples when waves become localized. Ultrasonic

techniques are well suited for investigating such phenomena since complete information about wave propagation (both amplitude and phase, in both time and space) can be measured directly in samples with well controlled internal structures. In this talk I will summarize some of our work on ultrasonic wave transport in both ordered and disordered mesoscopic materials (e.g., phononic crystals, metamaterials and "mesoglasses"), focusing on our recent progress in answering the long-standing question of whether or not Anderson localization of classical waves can really occur in three-dimensional disordered materials. This work is making it possible to study aspects of Anderson localization that have not previously been amenable to experimental investigation, and is contributing to the current resurgence of interest in localization in condensed matter physics and related disciplines.

**CHARLES GALE, MCGILL U.**

(CAP-CRM Prize Winner / Récipiendaire de la prix'ACP-CRM)

Room: CCIS 1-430
12h00 - 12h30**GRAVITY AND ENTANGLEMENT**

The AdS/CFT correspondence from string theory provides a quantum theory of gravity in which spacetime and gravitational physics emerges from an ordinary non-gravitational system with many degrees of freedom. In this talk, I will explain how quantum entanglement between these degrees of freedom is crucial for the emergence of a classical spacetime, and how Einstein's equations can be derived at the linearized level from the dynamics of quantum entanglement.

**FRANÇOIS LÉGARÉ, INRS-EMT**

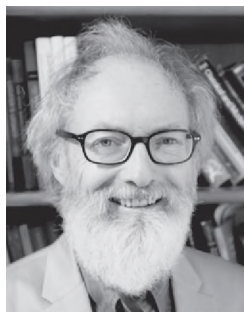
(CAP Herzberg Medal Winner / Récipiendaire de la médaille Herzberg de l'ACP)

Room: CCIS 1-430
15h45 - 16h15**A NEW STRATEGY TO BUILD ULTRAFAST LASERS; FREQUENCY DOMAIN OPTICAL PARAMETRIC AMPLIFICATION**

High power laser amplification of octave spanning or even octave exceeding spectra is a formidable technological challenge since the universal dilemma of gain narrowing is only one of many problems on this path. The shortcoming of all present femtosecond (1fs = 0.00000000000001s) laser amplification schemes suffer from opposing conditions for either high amplification level ($\Rightarrow$ high peak power), or large amplification bandwidth ($\Rightarrow$ short pulse duration). Therefore, amplified pulses at the output of

laser systems are typically limited to >5 optical cycles pulse duration at best. To overcome the universal dilemma of gain narrow-

ing which prevents ultra high power lasers from delivering single to few-cycle pulses, a new amplification concept is proposed; Frequency domain Optical Parametric Amplification. One cycle of the electric field in time domain corresponds to an octave of frequencies in the spectral domain. The key idea for amplification of octave-spanning spectra without loss of frequencies is to amplify the broad spectrum "slice by slice" in the frequency domain. Opposed to traditional schemes where laser amplification takes place in the time domain, we propose to amplify different spectral parts independently of each other in the spectral domain of a 4f-setup. For the first time, simultaneous up-scaling of peak power and amplified spectral bandwidth became possible. The device can be operated at any wavelength of conventional laser amplifiers, however, with the capability to amplify single optical cycle of light. A working laboratory prototype built at the Advanced Laser Light Source (ALLS) delivered record breaking parameters in the field of infrared few-cycle lasers; carrier envelope phase (CEP) stable pulses carrying 1.5 millijoule (mJ) of energy with 12 fs duration (= two optical cycles) at 1.8 micron wavelength.



JOHN MARTIN, U. OF TORONTO / IPP

(CAP Medal of Achievement Winner /
Récipiendaire de la médaille pour contributions exceptionnelles de l'ACP)

Room: CCIS 1-430
16h15 - 16h45

FROM QUARKS TO NEUTRINOS, ADVENTURES IN PARTICLE PHYSICS

I have been fortunate to participate in the evolution of particle physics in Canada for a large fraction of its history. I will discuss developments from 1972 to its current lively state, illustrating with a few examples from the experiments on which I have collaborated. With the recent discovery of the Higgs boson the Standard Model is now complete, but is known to be an incomplete description of nature. The questions before us have never been more interesting, and the increasingly complex experiments in subatomic physics and cosmology should soon yield exciting new discoveries about the universe.

THURSDAY, JUNE 18

- CCIS 1-430 -

JEUDI 18 JUIN



PIERRE SAVARD, U. OF TORONTO / TRIUMF

(CAP Vogt Medal Winner / Récipiendaire de la médaille Vogt de l'ACP)

Room: CCIS 1-430
11h15 - 11h45

THE HIGGS BOSON, 3 YEARS AFTER THE DISCOVERY

In July of 2012, the discovery of a new particle consistent with the Standard Model Higgs boson was announced. Following the discovery, additional data were collected and the experiments improved the calibration of the detectors and their analysis techniques. In this talk, I will present an updated description of our understanding of the Higgs boson and discuss future research plans as the Large Hadron Collider begins its second run at a higher energy.)



FRANCIS HALZEN, U. OF WISCONSIN-MADISON

Room: CCIS 1-430
11h45 - 12h30

ICECUBE AND THE DISCOVERY OF HIGH-ENERGY COSMIC NEUTRINOS

The IceCube project has transformed one cubic kilometer of natural Antarctic ice into a neutrino detector. The instrument detects 100,000 neutrinos per year in the GeV to PeV energy range. Among those, we have recently isolated a flux of high-energy cosmic neutrinos. I will discuss the instrument, the analysis of the data, and the significance of the discovery of cosmic neutrinos.

FRIDAY, JUNE 19

- CCIS L2-190 -

VENDREDI 19 JUIN



DAVID A. WEITZ, SEAS HARVARD

Room: CCIS L2-190
12h45 - 13h30

CELL STIFFNESS AND CELL VOLUME

The stiffness of cells is commonly assumed to depend on the stiffness of their surrounding: bone cells are much stiffer than neurons, and each exists in surrounding tissue that matches the cell stiffness. In this talk, I will discuss new measurements of cell stiffness, and show that cell stiffness is strongly correlated to cell volume. This affects both the mechanics and the gene expression in the cell, and even impacts on the differentiation of stem cells.

MONDAY, JUNE 15

LUNDI 15 JUIN

IPP and CINP Meetings and Reports
Réunions et Rapports de l'IPP et ICPN

(see pg. 26 for details / voir p. 26 pour renseignements)

Room / Salle : CCIS L1-140
08h30 - 10h45

CAP Welcome Barbeque
Réception d'accueil avec BBQ

CCIS Ground Level Foyer
17h15 - 19h30

TUESDAY, JUNE 16

MARDI 16 JUIN

SPECIAL SESSION / SESSION SPÉCIALE

Room / Salle : CCIS L2-190
19h00 - 22h00

Science Policy: Where do you fit? / Politique scientifique : où vous situez-vous?

followed by

Physics Career Paths: Stories of where a Physics Education can lead / Chemine-
ments de carrière en physique: où des études en physique pourraient vous mener

followed by

Post-workshops Meet & Greet / Rencontre-accueil

(See page 25 for details / voir p. 25 pour renseignements)

WEDNESDAY, JUNE 17

MERCREDI 17 JUIN

Poster Session and Student Competition
Session d'affiches et concours étudiants

(with beer and light refreshments / bière et petit goûter servis)

Room / Salle : CCIS Ground Floor
PCL Lounge (East end)
19h00 - 22h00

THURSDAY, JUNE 18

JEUDI 18 JUIN

CEWIP Annual Meeting & Reception
Assemblée annuelle CEFEP et réception

Room / Salle : CCIS L1-047
17h15 - 18h45

Recognition Reception
Gala reconnaissance

Art Gallery of Alberta
19h00 - 22h00

FRIDAY, JUNE 19

VENDREDI 19 JUIN

CAP Best Student Oral Competition
Compétition finale - meilleures communications étudiantes

Room / Salle : CCIS L2-190
10h15 - 12h45

TUESDAY, JUNE 16 / MARDI 16 JUIN

Room CCIS L1-047, L2 Labs

15th Annual Physics Teachers' Day / 15^e Journée annuelle des enseignants de physique

On Tuesday, June 16th, workshops with hands-on demos will be held for CEGEP and high school physics and science teachers as part of the annual national congress of the Canadian Association of Physicists (CAP) at the University of Alberta. This will be done in joint-sessions with CAP's Division of Physics Education and the University of Alberta's Department of Physics.

Le mardi 16 juin, des ateliers avec démonstrations interactives conçus pour les enseignants de physique et de sciences au cégep et au secondaire auront lieu dans le cadre du congrès annuel de l'Association canadienne des physiciens et physiciennes (ACP) à l'Université de l'Alberta. Ces ateliers sont conjointement offerts par la Division de l'enseignement de la physique de l'ACP et le Département de physique de l'Université de l'Alberta.

08h30 - 08h45	Opening and Welcome, Calvin Kalman, Chair of Division of Education, from CAP
08h45 - 09h15	Changing student's approach to learning physics, Calvin Kalman, Chair of Division of Education, CAP
09h15 - 10h00	Metamaterials: Controlling light, heat, sound and electrons at the nanoscale, Zubin Jacob, Electrical and Computer Engineering, University of Alberta
10h15 - 10h45	CAP Teaching Medal Talk, Chitra Rangan, University of Windsor, Joint session with CAP delegates
11h00 - 12h00	Quantum superposition and the uncertainty principle in the class room; a hands-on experience, Martin Laforest, Senior Manager, Scientific Outreach, Institute for Quantum Computing, University of Waterloo
13h00 - 18h00	Afternoon workshops: Teachers can participate in up to three of the workshops listed below.
	• Cavendish experiment (measuring G) • Millikan oil drop (obtaining the basic electron charge) • e/m for electrons • Electron diffraction (verifying particle wave duality) • Video analysis of Galileo's ramp • Frank-Hertz experiment (quantization of energy) • Faraday's rotation (polarization, field-induced polarization) • Visit to Dr. Jacob's lab

Commerical Publisher's Session :

Resources to Enhance University Physics Teaching

Tuesday, June 16

Room: CCIS L1-029

08h45-09h30 -



09h30-10h15 -



During each session, presentations will be made by representatives of both publishers, along with Physics faculty experienced with each publisher's resources. Time will be left for discussions during the session. In addition, the representations will be available to speak to attendees immediately following the session.

Exhibitor Booths

CCIS L2 Foyer

Les kiosques d'exposants

Tuesday, June 16 08h30 - 17h30

Wednesday, June 17 08h30 - 17h30

(see page ii for details)

SCIENCE POLICY AND CAREER PATH SESSION

SÉANCE SPÉCIALE TANT SUR LA POLITIQUE SCIENTIFIQUE
QUE SUR LE PARCOURS DE CARRIÈRE

Tuesday, June 16

19h00-22h00

jeudi 16 juin

Think outside your research field and participate in a discussion of broader issues related to the physics community.

To begin a discussion of science policy, **Dr. John Root** (Canadian Neutron Beam Centre) will outline policy issues related to the closure of the NRU research reactor. Following Dr. Root will be **Dr. Ted Hsu**, MP. Dr. Hsu is a physicist turned Member of Parliament, and he will be giving an inspiring and empowering talk on how physicists can increase the visibility and influence of scientists with Government.

Next, **Dr. Gary Albach** (Former President and CEO, Alberta Innovates – Technology Futures) will begin a more student-oriented discussion of career paths for physicists and outline the “inelastic collisions” which led him to positions in academia, industry, and government.

We will then open the floor to the audience during a panel discussion on careers, with panellists Dr. Hsu and Dr. Albach being joined by University of Alberta physics alum turned Tech Transfer Manager, **Ms. Shalon McFarlane** (TEC Edmonton).

The evening will conclude with a meet-and-greet, where students and faculty can have longer conversations with the speakers.

Overall, the evening promises to provide both students and faculty with timely knowledge designed to advance their career interests.

Please come and enjoy the session, even if you didn't check the box to indicate attendance at this event when registering for the Congress – any delegate interested in attending is invited to please join us.

Réfléchir hors de votre domaine de recherche et prendre part à l'étude de questions plus vastes ayant trait à la collectivité de la physique.

Pour amorcer les débats sur la politique scientifique, le **Dr John Root** (Centre canadien de faisceaux de neutrons) exposera les questions stratégiques ayant trait à la fermeture du réacteur de recherche NRU. Ce sera ensuite le **Dr Ted Hsu**, député. Celui-ci, autrefois physicien, prononcera une conférence inspirante et stimulante sur la manière dont les physiciens peuvent accroître la visibilité et l'influence des scientifiques auprès du gouvernement.

Puis le **Dr Gary Albach** (ancien président et PDG, Alberta Innovates – Technology Futures) amorcera un débat davantage axé sur les étudiants et traitant de parcours de carrière pour les physiciens, et il exposera les « chocs inélastiques » qui l'ont mené à des postes en milieux universitaire, industriel et gouvernemental.

Nous ouvrirons ensuite à l'auditoire une réunion d'experts sur les carrières, avec les Drs experts Hsu et Albach auxquels se joindra l'ancienne étudiante de l'Université de l'Alberta en physique, devenue directrice à la diffusion de la technologie, **Mme Shalon McFarlane** (TEC Edmonton).

La soirée se terminera par une séance d'accueil où étudiants et professeurs pourront s'entretenir plus longuement avec les conférenciers.

Dans l'ensemble, la soirée promet d'apporter à point nommé aux étudiants et professeurs des connaissances propres à faire progresser leurs intérêts professionnels.

Venez profiter de la séance, même si vous n'avez pas coché la case indiquant que vous seriez là, à votre inscription au Congrès – tout délégué intéressé à y assister est invité à se joindre à nous

Canadian Association of Physicists
Association canadienne des physiciens et physiciennes

ANNUAL GENERAL MEETING - DRAFT AGENDA

ASSEMBLÉE GÉNÉRALE ANNUELLE - ORDRE DU JOUR PROVISOIRE

DATE : Wednesday, June 17, 2015
Le mercredi, 17 juin 2015

TIME/HEURE : 17h15

PLACE : CCIS 1-430, University of Alberta, Edmonton, AB

Draft Agenda / Ordre du jour provisoire

1. Call to Order and Establishment of Quorum
2. Approval of the Agenda / Review of Voting Procedures (voting from 17h30-18h00)
3. Approval of the Minutes of the June 18, 2014 Annual General Meeting
 - .1 Matters arising from the Minutes
4. Annual Report
 - .1 Membership Report
 - .2 Audited Financial Statements to December 31, 2014
5. Appointment of Auditors
6. Presidential Address summarizing the past year's activities
(* items not covered in the Plenary talk which immediately precedes the AGM)
7. Report by the Co-Chairs of the 2015 Local Organizing Committee
8. Host Universities - Future Congresses
9. New Business
 - .1 2016 Membership Fees (D. Lockwood)
 - .2 Report on CAP Implementation Plan Activities (R. Fedosejevs)
 - .3 Report from CAPF Board of Directors (M. Roney)
 - .4 CUPC 2015 at Trent University (A. Warburton)
 - .5 Report by the Editor of Physics in Canada (B. Joos)
 - .6 Report by the Editor of Canadian Journal of Physics (M. Steinitz)
 - .7 Report of the Canadian National IUPAP Liaison Committee (J. Dilling)
 - .8 Other Matters
10. Report of the Nominating Committee (K. Ragan)
11. Result of 2015 Board of Directors Elections (F. Ford)
12. Vote of Thanks and Change of the Chair
13. Date and Place of Next Meeting (June 2016, University of Ottawa, Ottawa ON)
14. Adjournment

ABBREVIATION KEY / CODES DES ABRÉVIATIONS

Divisions

DAMOPC	Division of Atomic, Molecular and Optical Physics, Canada	DNP	Division of Nuclear Physics
DPAMPC	<i>Division de la physique atomique, moléculaire et photonique, Canada</i>	DPN	<i>Division de la physique nucléaire</i>
DASP	Division of Atmospheric and Space Physics	DPE	Division of Physics Education
DPAE	<i>Division de la physique atmosphérique et de l'espace</i>	DEP	<i>Division de l'enseignement de la physique</i>
DCMMP	Division of Condensed Matter and Materials Physics	DPP	Division of Plasma Physics
DPMCM	<i>Division de la physique de la matière condensée et matériaux</i>	DPP	<i>Division de la physique des plasmas</i>
DMBP	Division of Medical and Biological Physics	DSS	Division of Surface Sciences
DPMB	<i>Division de la physique médicale et biologique</i>	DSS	<i>Division des sciences des surfaces</i>
DIAP	Division of Industrial and Applied Physics	DTP	Division of Theoretical Physics
DPIA	<i>Division de la physique industrielle et appliquée</i>	DPT	<i>Division de la physique théorique</i>
DHP	Division on the History of Physics	PPD	Particle Physics Division
DHP	<i>Division de l'histoire de la physique</i>	PPD	<i>Division de la physique des particules</i>
DIMP	Division of Instrumentation and Measurement Physics	CEWIP	Committee to Encourage Women in Physics
DPIM	<i>Division de la physique des instruments et mesures</i>	CEFEP	<i>Comité pour encourager les femmes en physique</i>

(G) = Graduate student <i>étudiant diplômé</i> (U) = Undergraduate student <i>étudiant de premier cycle</i> * = Student competitor <i>Compétiteur étudiant</i>

Sessions

SA-xx	Saturday Meeting / <i>Réunion du samedi</i>	W-xx	Wednesday meeting / <i>Réunion du mercredi</i>
S-xx	Sunday Meeting / <i>Réunion du dimanche</i>	W#-#	Wednesday Session / <i>Session du mercredi</i>
M-xx	Monday meeting / <i>Réunion du lundi</i>	R-xx	Thursday Session / <i>Session du jeudi</i>
M#-#	Monday Session / <i>Session du lundi</i>	R#-#	Thursday meeting / <i>Réunion du jeudi</i>
T-xx	Tuesday meeting / <i>Réunion du mardi</i>	F-xx	Friday meeting / <i>Réunion du vendredi</i>
T#-#	Tuesday Session / <i>Session du mardi</i>	F#-#	Friday Session / <i>Session du vendredi</i>
W-POS#	Wednesday evening Poster session / <i>Session d'affiches du mercredi soir</i>		
All/Tous	Friday Best Student Paper Competition / <i>Compétition pour les meilleures communications étudiantes, le vendredi matin</i>		
xx-Plen	Plenary session on Monday (M), Tuesday (T), Wednesday (W), Thursday (R), or Friday (F) / <i>Session plénière du lundi (M), mardi (T), mercredi (W), jeudi (R), ou vendredi (F)</i>		
xx-MEDAL	Medallist session on Monday (M), Tuesday (T), Wednesday (W), Thursday (R), or Friday (F) / <i>Session lauréat du lundi (M), mardi (T), mercredi (W), jeudi (R), ou vendredi (F)</i>		

LEGEND / LÉGENDE (see maps on page vii, viii / voir cartes, p. vii, viii)

CAB # = Central Academic Building

CCIS # = Centennial Centre for Interdisciplinary Science

NINT = National Institute for Nanotechnology

SUB = Student Union Building

CAP Congress / Congrès de l'ACP
University of Alberta / Université de l'Alberta
Edmonton, AB
June 15-19 juin 2015

Saturday, June 13 / samedi 13 juin

13:00-17:00 CINF Town Hall / Consultation publique du CINF CCIS L1-047

Sunday, June 14 / dimanche 14 juin

08:00-12:00 CAP Board Meeting (Old and New) / Réunion du CA de l'ACP (ancien et nouveau) CCIS 3-003
 08:00-10:00 Long Range Planning Committee Kick-off Meeting / Réunion du comité de planification à long terme CCIS 4-003
 09:00-17:00 IPP Town Hall / Consultation publique de l'IPP NINT Taylor Room
 09:00-17:00 CINF Town Hall / Consultation publique du CINF CCIS L1-047
 12:30-17:00 CAP Advisory Council (Old and New) / Conseil consultatif de l'ACP (ancien et nouveau) CCIS L1-029
 19:30-21:30 CINF Board Meeting / Réunion du conseil de l'ICPN CCIS L1-047
 19:30-21:30 IPP Inst. Members and Board of Trustees Meetings / Réunions des membres inst. et du conseil de l'IPP NINT Taylor Room

Monday, June 15 / lundi 15 juin

08:00-17:30 Congress Registration and Information / Inscription au congrès et information Registration / CAP Desk
 08:30-09:00 Joint CINF-IPP NSERC SAP ES Chair's Report / Rapports conjoints ICPN-IPP du responsable CRSNG CCIS L1-140
 09:00-09:30 Joint CINF-IPP TRIUMF Scientific Director's Report (R.Kruecken) / Rapports conjoints ICPN-IPP du Directeur scientifique de TRIUMF CCIS L1-140
 09:30-10:00 Joint CINF-IPP SNOLAB Director's Report (N.Smith) / Rapports conjoints ICPN-IPP du Directeur du SNOLAB CCIS L1-140
 09:30-11:00 PIC Editorial Board Meeting / Réunion du Comité de rédaction de La Physique au Canada CCIS L1-047
 10:00-10:25 Subatomic Physics Long Range Plan / Plan à long terme en physique subatomique CCIS L1-140
 10:25-10:45 CFI and Subatomic Physics (G.Levesque) / FCI et la physique subatomique CCIS L1-140
 11:00-12:00 CINF Annual General Meeting / Assemblée générale annuelle de l'ICPN CCIS L1-029
 11:00-12:30 IPP Annual General Meeting / Assemblée générale annuelle de l'IPP CCIS L1-140
 13:00-13:45 Plenary Session - Start of Conference - Sara Seager, MIT / Session plénière - Ouverture du Congrès - Sara Seager, MIT CCIS 1-430
 13:45-15:15 M1-1 Topological States of Matter (DCMMP) / États topologiques de la matière (DPMCM) NINT Taylor Room
 13:45-15:15 M1-2 Organic and Molecular Electronics (DCMMP-DMBP-DSS) / Électronique organique et moléculaire (DPMCM-DPMB-DSS) CCIS L2-190
 13:45-15:15 M1-3 Theory, modelling and space weather I (DASP) / Théorie, modélisation et climat spatial I (DPAE) CAB 243
 13:45-15:15 M1-4 Theoretical Astrophysics (DTP) / Astrophysique théorique (DPT) CAB 239
 13:45-15:15 M1-5 Nuclear Techniques in Medicine and Safety (DNP-DIAP) / Techniques nucléaires en médecine et en sécurité (DPN-DPIA) CCIS L1-047
 13:45-15:15 M1-6 Neutrinoless Double-beta Decay I (PPD-DNP) / Double désintégration beta sans neutrino I (PPD-DPN) CCIS 1-140
 13:45-15:15 M1-7 Advances in Nuclear Physics and Particle Physics Theory (DNP-PPD-DTP) / Progrès en physique nucléaire et en physique des particules théoriques (DPN-PPD-DPT) CCIS 1-160
 13:45-15:15 M1-8 Energy frontier: Standard Model and Higgs Boson I (PPD) / Frontière d'énergie: modèle standard et boson de Higgs I (PPD) CCIS L1-140
 13:45-15:15 M1-9 Ultrafast and Time-resolved Processes (DAMOPC) / Procédés ultra-rapides avec résolution dans le temps (DPAMPC) CCIS L2-200
 13:45-15:15 M1-10 NSERC's Partnership Program / Programmes de partenariats du CRSNG CAB 235
 15:45-17:15 M2-1 Computational methods in condensed matter physics (DCMMP) / Méthodes numériques en physique de la matière condensée (DPMCM) NINT Taylor Room
 15:45-17:15 M2-2 Material growth and processing (DCMMP) / Croissance et traitement des matériaux (DPMCM) CCIS L2-190
 15:45-17:15 M2-3 Theory, modelling and space weather II (DASP) / Théorie, modélisation et climat spatial II (DPAE) CAB 243
 15:45-17:15 M2-4 Cosmic Frontier: Cosmology I (DTP-PPD-DIMP) / Frontière cosmique: cosmologie I (DPT-PPD-DPIM) CCIS 1-140
 15:45-17:15 M2-5 Nuclear Astrophysics (DNP) / Astrophysique nucléaire (DPN) CCIS L1-140
 15:45-17:15 M2-6 Radiation Therapy (DMBP-DNP) / Thérapie par rayonnement (DPMB-DPN) CCIS 1-160
 15:45-17:15 M2-7 Cosmic frontier: Dark matter I (PPD-DTP) / Frontière cosmique: matière sombre I (PPD-DPT) CCIS L1-160
 15:45-17:15 M2-8 Teaching Physics to a Wider Audience (DPE) / Enseigner la physique à un auditoire CAB 239

15:45-17:15	M2-9 Advanced Instrumentation at Major Science Facilities: Accelerators (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: accélérateurs	CCIS L1-047
15:45-17:15	M2-10 Atomic and Molecular Spectroscopy: microwave to X-ray (DAMOPC) / Spectroscopie atomique et moléculaire: des micro-ondes aux rayons X (DPAMPC)	CCIS L2-200
15:45-17:15	CAP-NSERC Liaison Cttee Mtg / Réunion du comité de liaison ACP-CRSNG	CCIS 4-285
17:15-19:15	Welcome BBQ Reception / Réception d'accueil avec BBQ	CCIS Ground Level Foyer
19:30-20:30	Herzberg Memorial Public Lecture - Miguel Alcubierre, National Univ. of Mexico / Conférence commémorative publique Herzberg - Miguel Alcubierre, National Univ. of Mexico	SUB Myer Horowitz Theatre
20:30-21:30	Herzberg Reception / Réception Herzberg	SUB Dinwoodie Lounge

Tuesday, June 16 / mardi 16 juinExhibitors / Exposants 08:30 - 17:30 CCIS L2 Foyer

08:00-17:30	Congress Registration and Information / Inscription au congrès et information	Registration / CAP Desk
07:30-09:00	CAP Foundation Annual General Meeting / Assemblée annuelle de la Fondation de l'ACP	CCIS 4-285
08:30-18:00	Teachers' Day / Journée des enseignants	CCIS L1-047, L2 Labs
09:00-10:30	CAP Foundation Board Meeting / Réunion du CA de la Fondation de l'ACP	CCIS 4-285
08:45-10:15	T1-1 Superconductivity (DCMMP) / Supraconductivité (DPMCM)	NINT Taylor Room
08:45-10:15	T1-2 Many body physics & Quantum Simulation (DAMOPC-DCMMP) / Physique des N corps et simulation quantique (DPAMPC-DPMCM)	CAB 235
08:45-10:15	T1-3 Ground-based / in situ observations and studies of space environment I (DASP) / Observations et études de l'environnement spatial, sur terre et in situ I (DPAE)	CAB 243
08:45-10:15	T1-4 Mathematical Physics (DTP) / Physique mathématique (DPT)	CCIS L1-160
08:45-10:15	T1-5 Energy Frontier: Susy & Exotics I (PPD-DTP) / Frontière d'énergie: supersymétrie et particules exotiques I (PPD-DPT)	CCIS 1-160
08:45-10:15	T1-6 Cosmic Frontier: Cosmology II (PPD-DTP-DIMP) / Frontière cosmique: cosmologie II (PPD-DPT-DPIM)	CCIS 1-140
08:45-10:15	T1-7 Nuclear Structure I (DNP) / Structure nucléaire I (DPN)	CCIS L1-140
08:45-10:15	T1-8 Special session to honor Dr. Akira Hirose I (DPP) / Session speciale en l'honneur de Dr. Akira Hirose I (DPP)	CCIS 1-430
08:45-10:15	T1-9 Nanostructured Surfaces and Thin Films (DSS-DCMMP) / Surfaces et couches minces nanostructurées (DSS-DPMCM)	CCIS L2-190
08:45-10:15	T1-10 THz science and applications (DAMOPC) / Sciences et applications des THz (DPAMPC)	CCIS L2-200
08:45-10:15	T1-11 Medical Imaging (DMBP) / Imagerie médicale (DPMB)	CAB 239
08:45-10:15	Commercial Publishers' Session: Resources to Enhance University Physics Teaching / Session des éditeurs commerciaux : ressources visant à améliorer l'enseignement de la physique à l'université	CCIS L1-029
10:15-10:45	T-MEDAL CAP Medal Talk - Chitra Rangan, U. Windsor (Teaching Undergraduate Physics / Enseignement de la physique au 1er cycle)	CCIS 1-430
11:15-11:45	NSERC Presentation by Elizabeth Boston / Présentation du CRSNG par Elizabeth Boston	CCIS 1-430
11:45-12:15	NSERC EG Chair Report (L.-H. Xu) / Rapport de la présidente du GE (L.-H. Xu)	CCIS 1-430
12:15-12:30	CAP-NSERC Liaison Committee Report (W. Whelan) / Rapport du Comité de liaison ACP-CRSNG (W. Whelan)	CCIS 1-430
12:30-13:45	DAMOPC Annual Meeting / Assemblée annuelle DPAMC	CCIS L2-200
12:30-13:45	DMBP Annual Meeting / Assemblée annuelle DPMB	CAB 239
12:30-13:45	DNP Annual Meeting / Assemblée annuelle DPN	CCIS L1-140
12:30-13:45	DPP Annual Meeting / Assemblée annuelle DPP	CCIS L2-190
12:30-13:45	IPP Scientific Council Meeting / Réunion du comité scientifique de l'IPP	CCIS 2-122
12:30-13:45	CAP Past Presidents' Meeting / Réunion des anciens présidents de l'ACP	CCIS 4-285
12:30-13:45	New Faculty Lunch Meeting with NSERC / Dîner-rencontre des nouveaux professeurs avec le CRSNG	CCIS L1-029
13:45-15:15	T2-1 Materials characterization: microscopy, imaging, spectroscopy (DCMMP) / Caractérisation des matériaux: microscopie, imagerie, spectroscopie (DPMCM)	NINT Taylor Room
13:45-15:15	T2-2 Condensed Matter Theory (DCMMP-DTP) / Théorie de la matière condensée (DPMCM-DPT)	CAB 235
13:45-15:15	T2-3 Ground-based / in situ observations and studies of space environment II (DASP) / Observations et études de l'environnement spatial, sur terre et in situ II (DPAE)	CAB 243
13:45-15:15	T2-4 Fields and Strings (DTP) / Champs et cordes (DPT)	CCIS L1-047
13:45-15:15	T2-5 Nuclear Structure II (DNP) / Structure nucléaire II (DPN)	CCIS L1-140
13:45-15:15	T2-6 Nuclear Physics in Medicine (DNP-DMBP-DIAP) / Physique nucléaire en médecine (DPN-DPMB-DPIA)	CAB 239
13:45-15:15	T2-7 Energy Frontier: Susy & Exotics II (PPD) / Frontière d'énergie: supersymétrie et particules exotiques II (PPD)	CCIS 1-160
13:45-15:15	T2-8 Cosmic frontier: Dark matter II (PPD) / Frontière cosmique: matière sombre II (PPD)	CCIS 1-140
13:45-15:15	T2-9 Gender and Arts in Physics Teaching (CEWIP-DPE) / Genre et arts dans l'enseignement de la physique (CEFEP-DEP)	CCIS L1-160
13:45-15:15	T2-10 Cold and trapped atoms, molecules and ions (DAMOPC) / Atomes, molécules et ions froids et piégés (DPAMPC)	CCIS L2-200

13:45-15:15	T2-11 Laser, Laser-matter interactions, and plasma based applications (DPP) / Lasers, interactions laser-matière et applications basées sur les plasmas (DPP)	CCIS L2-190
15:45-17:15	T3-1 Materials characterization: electrical, optical, thermal (DCMMP) / Caractérisation des matériaux: électrique, optique, thermique (DPMCM)	NINT Taylor Room
15:45-17:15	T3-2 Quantum Computation and Communication (DTP-DCMMP-DAMOPC) / Communication et calcul quantique (DPT-DPMCM-DPAMPC)	CCIS L2-200
15:45-17:15	T3-3 Ground-based / in situ observations and studies of space environment III (DASP) / Observations et études de l'environnement spatial, sur terre et in situ III (DPAE)	CAB 243
15:45-17:15	T3-4 Cosmic Frontier: Dark Matter III (PPD) / Frontière cosmique: matière sombre III	CCIS 1-140
15:45-17:15	T3-5 Study of Neutrino Oscillations (PPD-DTP-DNP) / Études des oscillations de neutrinos (PPD-DPT-DPN)	CAB 235
15:45-17:15	T3-6 Nuclear Structure III (DNP) / Structures nucléaires III (DPN)	CCIS L1-140
15:45-17:15	T3-7 Panel on Women in Physics (CEWIP) / Table ronde sur les femmes en physique (CEFEP)	CCIS L1-160
15:45-17:15	T3-8 Advanced Instrumentation at Major Science Facilities: Detectors I (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: détecteurs I	CCIS 1-160
15:45-17:15	T3-9 Molecular Biophysics (DMBP) / Biophysique moléculaire (DPMB)	CAB 239
15:45-17:15	T3-10 Special session to honour Dr. Akira Hirose II (DPP) / Session spéciale en l'honneur du Dr Akira Hirose II (DPP)	CCIS L2-190
17:00-19:00	Department Leaders Business Meeting / Réunion d'affaires des directeurs de	Athabasca Hall 227
17:30-18:30	Lab Tours / Visites guidées des labos	Registration / CAP Desk
19:00-21:30	CJP Editorial Board Meeting / Réunion du comité de rédaction de la RCP	The Hardware Grill CCIS
19:00-19:50	Science Policy: Where do you fit? / Politique scientifique : où vous situez-vous?	L2-190
19:55-21:15	Physics Career Paths: Stories of where a Physics Education can lead / Cheminements de carrière en physique: où des études en physique pourraient vous mener	CCIS L2-190
21:15-22:00	Post-workshops Meet & Greet / Rencontre-accueil	CCIS L2 Foyer

Wednesday, June 17 / mercredi 17 juinExhibitors / Exposants 08:30 - 17:30 CCIS L2 Foyer

08:00-16:30	Congress Registration and Information / Inscription au congrès et information	Registration / CAP Desk
07:30-08:45	CNIRC Breakfast Meeting / Réunion du comité de liaison national canadien de l'UIPPA	CCIS 4-285
08:45-10:15	W1-1 Carbon-based materials (DCMMP) / Matériaux à base de carbone (DPMCM)	NINT Taylor Room
08:45-10:15	W1-2 Soft Condensed Matter and Soft Interfaces (DMBP-DCMMP) / Matière condensée molle et interfaces molles (DPMB-DPMCM)	CCIS L2-190
08:45-10:15	W1-3 Special session to honor Dr. Akira Hirose III (DASP-DPP) / Session spéciale en l'honneur du Dr Akira Hirose III (DPAE-DPP)	CAB 243
08:45-10:15	W1-4 Gravity I (DTP) / Gravité I (DPT)	CAB 235
08:45-10:15	W1-5 Energy frontier: Future developments (PPD) / Frontière d'énergie: développements futurs (PPD)	CCIS L1-140
08:45-10:15	W1-6 Devices (DCMMP) / Dispositifs (DPMCM)	CCIS L1-047
08:45-10:15	W1-7 Neutrinoless Double-beta Decay II (PPD-DNP) / Double désintégration beta sans neutrino II (PPD-DPN)	CCIS 1-140
08:45-10:15	W1-8 Strengthening Physics Departments (DPE) / Renforcer les départements de physique (DEP)	CCIS L1-160
08:45-10:15	W1-9 Advanced Instrumentation at Major Science Facilities: Detectors II (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: détecteurs II	CCIS 1-160
08:45-10:15	W1-10 Quantum Optics and Cavity QED (DAMOPC) / Optique quantique et ÉDQ en cavité (DPAMPC)	CCIS L2-200
10:45-11:30	W-PLEN Plenary Session - Wick Haxton, Univ. of Washington and Univ. of California / Session plénière - Wick Haxton, Univ. de Washington et Univ. de Californie	CCIS 1-430
11:30-12:00	W-MEDAL1 CAP Medal Talk - John Page, U. Manitoba (Brockhouse Medal Recipient/Réceptiendaire de la médaille Brockhouse)	CCIS 1-430
12:00-12:30	W-MEDAL2 CAP Medal Talk - Charles Gale, McGill U. (CAP-CRM Prize in Theoretical and Mathematical Physics Recipient / Réceptiendaire Prix ACP-CRM en physique théorique et mathématique)	CCIS 1-430
12:30-13:45	DPE Annual Meetings / Assemblée annuelle DEP	CCIS L1-160
12:30-13:45	DCMMP Annual Meeting / Assemblée annuelle DPMCM	CAB 235
12:30-13:45	DASP Annual Meeting / Assemblée annuelle DPAE	CAB 243
13:45-15:15	W2-1 Spintronics and spintronic devices (DCMMP) / Spintronique et technologies spintroniques (DPMCM)	NINT Taylor Room
13:45-15:15	W2-2 Quantum Information Theory (DTP-DCMMP) / Théorie de l'information quantique (DPT-DPMCM)	CAB 239
13:45-15:15	W2-3 Gravity II (DTP) / Gravité II (DPT)	CCIS 1-140
13:45-15:15	W2-4 Testing Fundamental Symmetries I (DNP-PPD) / Tests de symétries fondamentales I (DPN-PPD)	CCIS L1-140
13:45-15:15	W2-5 Atmospheric physics (DASP) / Physique atmosphérique (DPAE)	CCIS 1-160
13:45-15:15	W2-6 Special session to honor Dr. Akira Hirose IV (DPP) / Session spéciale en l'honneur du Dr Akira Hirose IV (DPP)	CAB 243

13:45-15:15	W2-7 Cosmic Frontier: Astrophysics and Neutrinos (PPD) / Frontière cosmique : astrophysique et neutrinos (PPD)	CCIS L2-190
13:45-15:15	W2-8 Labs and/or undergraduate research experiences (DPE) / Expériences de recherche en laboratoire et/ou au premier cycle (DEP)	CCIS L1-160
13:45-15:15	W2-9 General Instrumentation and Measurement Physics (DIMP) / Physique générale des instruments et mesures (DPIM)	CCIS L1-047
13:45-15:15	W2-10 Spectroscopy and Optics (DAMOPC) / Spectroscopie et optique (DPAMPC)	CCIS L2-200
13:45-15:15	W2-11 Microfluidics and Driven Motion (DMBP) / Microfluidique et mouvement forcé	CAB 235
15:45-16:15	W-MEDAL3 CAP Medal Talk François Légaré, EMT-INRS (CAP Herzberg Medal Recipient/Récipiendaire de la médaille Herzberg de l'ACP)	CCIS 1-430
16:15-16:45	W-MEDAL4 CAP Medal Talk - John F. Martin, IPP / U. Toronto (Achievement Medal Recipient / Récipiendaire de la médaille pour contributions exceptionnelles)	CCIS 1-430
16:45-17:15	CAP President's report / Rapport du président de l'ACP	CCIS 1-430
17:15-19:00	CAP Annual General Meeting with election of Board and Advisory Council members / Assemblée générale annuelle de l'ACP avec election des membres du c.a. et du conseil consultatif	CCIS 1-430
17:30-18:30	Lab Tours / Visites guidées des labos	Registration / CAP Desk
19:00-21:00	"Friends of CAP" Dinner and Meeting / Souper et réunion des "Ami(e)s de l'ACP"	CCIS L1-047
19:00-22:00	Poster Session / Session d'affiches	CCIS Ground Floor Foyer (east end)

Thursday, June 18 / jeudi 18 juin

08:00-16:00	Congress Registration and Information / Inscription au congrès et information	Registration / CAP Desk
07:30-08:45	Science Policy Committee Breakfast Meeting / Réunion-déjeuner du Comité de politique scientifique	CCIS L1-029
08:45-10:45	R1-1 Optomechanics -- minisymposium I (DCMMP-DAMOPC) / Optomécanique -- minisymposium I (DPMCM-DPAMPC)	CCIS L2-200
08:45-10:45	R1-2 Computational Biophysics (DMBP-DCMMP) / Biophysique numérique (DPMB-DPMCM)	NINT Taylor Room
08:45-10:45	R1-3 Status and Future of Precision Frontier (PPD-DTP-DIMP) / État et avenir de la frontière de précision (PPD-DPT-DPIM)	CCIS L1-029
08:45-10:45	R1-4 Energy frontier: Standard Model and Higgs Boson II (PPD) / Frontière d'énergie: modèle standard et boson de Higgs II (PPD)	CCIS 1-160
08:45-10:45	R1-5 Quantum Gravity and Quantum Cosmology (DTP) / Gravité quantique et cosmologie quantique (DPT)	CCIS L1-047
08:45-10:45	R1-6 Testing Fundamental Symmetries II (DTP-PPD-DNP) / Tests de symétries fondamentales II (DPT-PPD-DPN)	CCIS 1-140
08:45-10:45	R1-7 Hadronic Structure (DNP-DTP) / Structure hadronique (DPN-DPT)	CCIS L1-140
08:45-10:45	R1-8 Interactive Teaching - Teaching with Technology (DPE) / Enseignement interactif et à l'aide de la technologie (DEP)	CCIS L1-160
11:15-11:45	R-MEDAL CAP Medal Talk - Pierre Savard, U. Toronto / TRIUMF (CAP-TRIUMF Vogt Medal Recipient/Récipiendaire de la médaille Vogt de l'ACP-TRIUMF)	CCIS L2-190
11:45-13:45	Outreach "Tête-à-tête Liaisons externes	CCIS 4-285
11:45-12:30	R-PLEN Plenary Session - Francis Halzen, IceCube and Univ. of Wisconsin-Madison - Session plénière - Francis Halzen, IceCube and Univ. de Wisconsin-Madison	CCIS L2-190
12:30-13:45	DHP Annual Meeting / Assemblée annuelle DHP	CCIS L1-029
12:30-13:45	DIMP-DIAP Annual Meeting / Assemblée annuelle DPIM-DPIA	CCIS 1-160
12:30-13:45	DTP Annual Meeting / Assemblée annuelle DPT	CCIS L1-047
12:30-13:45	PPD Annual Meeting / Assemblée annuelle PPD	CCIS 1-140
13:45-15:15	R2-1 Optomechanics - minisymposium II (DCMMP-DAMOPC) / Optomécanique - minisymposium II (DPMCM-DPAMPC)	CCIS L2-200
13:45-15:15	R2-2 Strongly correlated systems (DCMMP) / Systèmes fortement corrélés (DPMCM)	CCIS L1-140
13:45-15:15	R2-3 Advanced Instrumentation at Major Science Facilities: Data Acquisition (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: données et applications (DPIM)	CCIS 1-160
13:45-15:15	R2-4 Curriculum Development and Revitalization (DPE) / Développement et revitalisation des programmes (DEP)	CCIS L1-160
15:45-17:15	R3-1 Light-Matter Interactions (DAMOPC-DCMMP) / Interactions entre la lumière et la matière (DPAMPC-DPMCM)	NINT Taylor Room
15:45-17:15	R3-2 Polymers and Biopolymers (DCMMP-DMBP) / Polymères et biopolymères (DPMCM-DPMB)	CCIS 1-140
15:45-17:15	R3-3 Advanced Instrumentation at Major Science Facilities: Data and Applications (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: acquisition de données (DPIM)	CCIS 1-160
17:15-18:30	CEWIP Annual Meeting & Reception / Assemblée annuelle CEFEP et réception	CCIS L1-047
19:00-22:30	Recognition Reception at the Art Gallery / Réception de reconnaissance à la Art Gallery	Art Gallery of Alberta

Friday, June 19 / vendredi 19 juin

08:00-11:00	Congress Registration and Information / Inscription au congrès et information	Registration / CAP Desk
08:45-10:15	F1-1 Networks and complex systems (DCMMP) / Réseaux et systèmes complexes (DPMCM)	CCIS 1-140
08:45-10:15	F1-2 Experimental Advances and Accelerators (DNP-DIMP-PPD) / Progrès expérimentaux et accélérateurs (DPN-DPIM-PPD)	CCIS 1-160
08:45-10:15	F1-3 Biomedical Optics and Biophotonics (DAMOPC-DIAP-DMBP) / Optique biomédicale et biophotonique (DPAMPC-DPIA-DPMB)	NINT Taylor Room
10:15-11:15	CAP Best Student Presentations Final Competition / Session plénière - Compétition finale de l'ACP pour les meilleures communications étudiantes	CCIS L2-190
11:45-12:45	CAP Best Student Presentations Final Competition / Session plénière - Compétition finale de l'ACP pour les meilleures communications étudiantes	CCIS L2-190
12:45-13:30	F-PLEN2 Plenary Session - David A. Weitz, SEAS Harvard / Session plénière - David A. Weitz, SEAS Harvard	CCIS L2-190
13:30-13:50	Announcement of Winner, CAP Best Student Presentation and Close of Conference / L'annonce du gagnant(e) compétition meilleure communication étudiante de l'ACP, Clôture du Congrès	CCIS L2-190
14:00-15:30	CAP Board Meeting (New and Old) / Réunion du CA de l'ACP (nouveau et ancien)	CCIS L1-047
15:30-17:00	Meeting of Local Organizing Committees 2015 + / Réunion des comités organisateurs locaux 2015 +	CCIS L1-047


UNIVERSITY OF ALBERTA
DEPARTMENT OF PHYSICS

We are committed to excellence in teaching and research in all major areas of physics:

Astronomy & Astrophysics	Global Geodynamics & Seismology
Biophysics	Nanotechnology
Computational Physics	Particle Physics
Condensed Matter Physics	Plasma Physics
Cosmology & Gravity Physics	Space Physics
Geophysics	

We take leadership roles in large research collaborations and operate leading-edge research facilities on campus.

Now accepting applications
for graduate students and post-
doctoral fellows.

Learn more:
physics.ualberta.ca

Faculty of
SCIENCE
University of Alberta

TRIUMF
Learning Accelerated

**TRIUMF welcomes teachers to the 2015
CAP Congress High School Teacher's Day.**

triumf.ca @TRIUMFLab

2015 Detailed Congress Summary

Programme détaillé du Congrès 2015

(see page 18 for description of codes and abbreviations)

Legend:

(G) or (U) - Graduate/Undergraduate
(G/U)* - student in competition
(i) invited speaker

CCIS # = Centennial Centre for Interdisciplinary Science
CAB # = Central Academic Building
SUB = Student Union Building
NINT = National Institute for Nanotechnology

Saturday, June 13

13h00 - 17h00 CINP Town Hall **CCIS L1-047**
(Chair: G. Huber, University of Regina) (cap. 56)

Sunday, June 14

08h00 - 12h00 CAP Board of Directors Meeting (Old and New) **CCIS 3-003**
(Chair: R. Fedosejevs, President, CAP) (cap. 13)

08h00 - 10h00 Long Range Planning Committee Kick-off Meeting **CCIS 4-003**
(Chair: S. Overington, NSERC) (cap. 18)

09h00 - 17h00 CINP Town Hall **CCIS L1-047**
(Chair: G. Huber, University of Regina) (cap. 56)

09h00 - 17h00 IPP Town Hall **NINT Taylor Room**
(Chair: M. Roney, University of Victoria) (cap. 95)

12h30 - 17h00 CAP Advisory Council Meeting (Old and New) **CCIS L1-029**
(Chair: R. Fedosejevs, President, CAP) (cap. 44)

19h30 - 21h30 IPP Inst. Members and Board of Trustees Meetings **NINT Taylor Room**
(Chair: M. Roney, University of Victoria) (cap. 95)

19h30 - 21h30 CINP Board Meeting **CCIS L1-047**
(Chair: G. Huber, University of Regina) (cap. 56)

Monday, June 15

08h30	CCIS L1-140 (cap. 196) M-SAP	Joint CINP-IPP NSERC SAP ES Chair's Report - Stefan Westerhoff (Chair: M. Roney, U. Victoria/IPP and G. Huber, U. Regina/CINP)	
09h00	CCIS L1-140 (cap. 196) M-TRIUMF	Joint CINP-IPP TRIUMF Scientific Director Report - Reiner Kruecken (Chair: M. Roney, U. Victoria/IPP and G. Huber, U. Regina/CINP)	
09h30	CCIS L1-140 (cap. 196) M-SNOLAB	Joint CINP-IPP SNOLAB Director's Report - Nigel Smith (Chair: M. Roney, U. Victoria/IPP and G. Huber, U. Regina/CINP)	PiC Editorial Board Meeting (Chair: B. Joos, U. Ottawa) CCIS L1-047 (cap. 56)
10h00	CCIS L1-140 (cap. 196) M-LRP	Report from Subatomic Physics Long Range Plan Committee Chair (Chair: M. Roney, U. Victoria/IPP and G. Huber, U. Regina/CINP)	
10h25	CCIS L1-140 (cap. 196) M-CFI	Canada Foundation for Innovation and Subatomic Physics Report from Guy Lévesque (ends at 10h45) (Chair: M. Roney, U. Victoria/IPP and G. Huber, U. Regina/CINP)	
10h45		IPP – CINP Health Break (CCIS L2 Foyer)	
11h00	IPP Annual General Meeting (Chair: M. Roney, U. Victoria)	CINP Annual General Meeting (Chair: G. Huber, U. Regina)	
	CCIS L1-140 (cap. 196)	CCIS L1-029 (cap. 44)	
12h00			
12h30		Lunch	

Programme détaillé du Congrès 2015

2015 Detailed Congress Summary

(Voir page 18 pour une description des codes et abbréviations)

Légende :

(G): 2e, 3e cycle

(U): 1er cycle

(G/U)* - concurrent dans la compétition

(i) conférencier invité

CCIS # = Centennial Centre for Interdisciplinary Science

CAB # = Central Academic Building

SUB = Student Union Building

NINT = National Institute for Nanotechnology

samedi 13 juin

Consultation publique du IPCN

(Chair: G. Huber, University of Regina)

CCIS L1-047

(cap. 56)

13h00 - 17h00

dimanche 14 juin

Réunion du c.a. (ancien et nouveau) de l'ACP

(Chair: R. Fedosejevs, Président, ACP)

CCIS 3-003

(cap. 13)

08h00 - 12h00

Réunion du comité de planification à long terme

(Chair: S. Overington, NSERC)

CCIS 4-003

(cap. 18)

08h00 - 10h00

Consultation publique du IPCN

(Chair: G. Huber, University of Regina)

CCIS L1-047

(cap. 56)

09h00 - 17h00

Consultation publique de l'IPP

(Chair: M. Roney, University of Victoria)

NINT Taylor Room

(cap. 95)

09h00 - 17h00

Réunion du conseil consultatif (ancien et nouveau) de l'ACP

(Chair: R. Fedosejevs, Président, ACP)

CCIS L1-029

(cap. 44)

12h30 - 17h00

Réunions des membres inst. et du conseil de l'IPP

(Chair: M. Roney, University of Victoria)

NINT Taylor Room

(cap. 95)

19h30 - 21h30

Réunion du Conseil de l'ICPN

(Chair: G. Huber, University of Regina)

CCIS L1-047

(cap. 56)

19h30 - 21h30

lundi 15 juin

CCIS L1-140 (cap. 196) M-SAP	Rapport conjoint ICPN-IPP du responsable CRSNG - Stefan Westerhoff (Chair: M. Roney, U. Victoria /IPP and G. Huber, U. Regina/ICPN)		08h30
CCIS L1-140 (cap. 196) M-TRIUMF	Rapport conjoint ICPN-IPP du directeur scientifique de TRIUMF - Reiner Kruecken) (Chair: M. Roney, U. Victoria /IPP and G. Huber, U. Regina/ICPN)		09h10
CCIS L1-140 (cap. 196) M-SNOLAB	Rapport conjoint ICPN-IPP du directeur de SNOLAB - Nigel Smith (Chair: M. Roney, U. Victoria /IPP and G. Huber, U. Regina/ICPN)	Réunion du Comité de rédaction de La Physique au Canada (Chair: B. Joos, U. Ottawa) CCIS L1-047 (cap. 56)	09h30
CCIS L1-140 (cap. 196) M-LRP	Rapport du président du Comité du Plan à long terme en physique subatomique (Chair: M. Roney, U. Victoria /IPP and G. Huber, U. Regina/ICPN)		10h00
CCIS L1-140 (cap. 196) M-CFI	Fondation canadienne pour l'innovation et la physique subatomique - Rapport de Guy Lévesque (se termine à 10h45) (Chair: M. Roney, U. Victoria /IPP and G. Huber, U. Regina/ICPN)		10h25
Pause santé IPP – IPCN (CCIS L2 Foyer)			10h45
Assemblée générale annuelle de l'ICPN (Chair: G. Huber, U. Regina) CCIS L1-029 (cap. 44)			11h00
Dîner	Assemblée générale annuelle de l'IPP (Chair: M. Roney, U. Victoria) CCIS L1-140 (cap. 196)		12h00
			12h30

Monday, June 15 (cont'd)

13h00 - 13h45	CCIS 1-430 (cap. 550) M-PLN Plenary Session - Start of Conference: Sara Seager, MIT Exoplanets and the Search for Habitable Worlds - see pg. 11 (Chair: R. Fedosejevs, President, CAP)				
TIME	NINT Taylor Room (cap. 95)	CCIS L2-190 (cap. 302)	CAB 243 (cap. 132)	CAB 239 (cap. 106)	CCIS L1-047 (cap. 56)
	(M1-1) Topological States of Matter (DCMMP) / États topologiques de la matière (DPMCM) Chair: Kaori Tanaka, University of Saskatchewan	(M1-2) Organic and Molecular Electronics (DCMMP-DMBP-DSS) / Électronique organique et moléculaire (DPMCM-DPMB-DSS) Chair: Doug Bonn, University of British Columbia	(M1-3) Theory, modelling and space weather I (DASP) / Théorie, modélisation et climat spatial I (DPAE) Chair: David Knudsen, University of Calgary	(M1-4) Theoretical Astrophysics (DTP) / Astrophysique théorique (DPT) Chair: Arundhati Dasgupta, University of Lethbridge	(M1-5) Nuclear Techniques in Medicine and Safety (DNP-DIAP) / Techniques nucléaires en médecine et en sécurité (DPN-DPIA) Chair: Zisis Papandreou, University of Regina
13h45	(i) HERBUT, Igor Nematic and non-Fermi liquid phases of systems with quadratic band crossing	(i) WOLKOW, Robert Principles and methods enabling atom scale electronic circuitry	(i) KABIN, Konstantin Examples of exact solutions of charged particle motion in magnetic fields and their applications.	(i) HEYL, Jeremy Probing Physics with Observations of Neutron Stars and White Dwarfs	(i) SEMENOV, Andrei Evaluation of SiPM Arrays and Use for Radioactivity Detection and Monitoring
14h15	(i) MACIEJKO, Joseph Collective modes and interacting Majorana fermions in topological superfluids	(i) BURKE, Sarah Polarization induced energy level shifts at organic semiconductor interfaces probed on the molecular scale by scanning tunnelling microscopy	KOUZNETSOV, Alexei Energetic Electron Precipitation Model	(i) LEAHY, Denis Observations and Theory of Supernova Explosions and their Remnants	(G)* WILLIAMS, Jonathan Neutron Generator Facility at SFU - GEANT4 Dose Prediction and Verification
14h30			(G)* GHARAEI, Hosna Properties of the lunar wake inferred from hybrid-kinetic simulations and an analytic model		(U) RIBERDY, Viora Rapid Elemental Analysis of Human Finger Nails Using Laser-Induced Breakdown Spectroscopy
14h45	(G)* HUTCHINSON, Joel Dilute limit of an interacting spin-orbit coupled two-dimensional electron gas	(G)* ACHAL, Roshan On the Road to Low Power Circuitry: Analysis of Si Dangling Bond Charging Dynamics	OZEKE, Louis Explaining the Newly Discovered Third Radiation Belt	DICK, Rainer No "End of Greatness": Superlarge Structures and the Dawn of Brane Astronomy	(i) ROOT, John The 2018 Shutdown of the NRU Reactor
15h00	(G) GHARAVI, Kaveh Andreev and Josephson transport in InAs nanowire-based quantum dots	(G)* MACDONALD, Andrew Set Point Effects in Fourier Transform Scanning Tunneling Spectroscopy	(G)* WANG, Chengrui Fast damping of Alfvén waves: Observations and modeling	Session Ends / Fin de la session	
15h15	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	
Health Break (CCIS L2 Foyer)					

lundi 15 juin (suite)

CCIS 1-430 (cap. 550)		Session plénière - Ouverture du congrès: Sara Seager, MIT Les exoplanètes et la recherche de mondes habitables- voir p. 11 (Chair: R. Fedosejevs, Président, CAP)			13h00 -13h45	
M-PLEN						
CCIS 1-140 (cap. 157)		CCIS 1-160 (cap. 157)	CCIS L1-140 (cap. 196)	CCIS L2-200 (cap. 302)	CAB 235 (cap. 106)	HEURE
(M1-6) Neutrinoless Double-beta Decay I (PPD-DNP) / Double désintégration beta sans neutrino I (PPD-DPN) Chair: Rudiger Picker, TRIUMF		(M1-7) Advances in Nuclear Physics and Particle Physics Theory (DNP-PPD-DTP) / Progrès en physique nucléaire et en physique des particules théoriques (DPN-PPD-DPT) Chair: Pierre Ouimet, University of Regina	(M1-8) Energy frontier: Standard Model and Higgs Boson I (PPD) / Frontière d'énergie: modèle standard et boson de Higgs I (PPD) Chair: Bhujanjyoti Bhattacharya, Université de Montréal	(M1-9) Ultrafast and Time-resolved Processes (DAMOPC) / Procédés ultra-rapides avec résolution dans le temps (DPAMPC) Chair: Chitra Rangan, University of Windsor	(M1-10) NSERC's Partnership Program / Programmes de partenariats du CRSNG Chair: Bill Whelan, University of Prince Edward Island	
(i) BILENKY, Samoil <i>Neutrino in the Standard Model and beyond</i>		(i) NAVRATIL, Petr <i>Ab initio calculations of nuclear structure and reactions</i>	(i) LISTER, Alison <i>Summary of ATLAS Standard Model measurements (including top quark)</i>	(i) BEAUDOIN BERTRAND, Julien <i>Following an Auger Decay by Attosecond Pump-Probe Measurements</i>	This session is a panel discussion and Q&A on researcher-industry collaborations and NSERC funding opportunities. Panelists include: Irene Mikawoz (NSERC Prairies Regional Office), Donna Strickland (U. of	13h45
(i) HALLIN, Aksel <i>Status of the SNO+ Experiment</i>		SVENNE, Juris P. <i>New horizons for MCAS: heavier masses and alpha-particle scattering.</i>	(i) VENTURI, Manuela <i>Measurement of the Higgs-boson properties with the ATLAS detector at the LHC</i>	(U) SHARUM, Haille <i>Ultrafast imaging of nonlinear terahertz pulse transmission in semiconductors</i>	Waterloo), Ashrit Pandurang (U. of Moncton), and Wayne Hocking (Western U.). Additional panelists (researchers and industry partners) will be announced. / Cette séance consistera en un	14h15
		LANDRY, Gaëtan <i>The coefficient of restitution of inflatable balls</i>		(G)* DE LOS REYES, Glenda <i>Energy transfer dynamics in blue emitting functionalized silicon nanocrystals</i>	débat d'experts et en une période de questions sur les collaborations entre les chercheurs et l'industrie et sur les possibilités de financement du CRSNG.	14h30
SINGH, Kalpana Singh <i>Extraction of optical parameters in SNO+ with an in-situ optical calibration system</i>		Session Ends / Fin de la session	(G)* CHAU, Chav Chhiv <i>Measurement of the $\gamma\gamma \rightarrow WW$ cross-section and searches for anomalous quartic gauge couplings WWAA at the ATLAS experiment</i>	(i) MILNER, Valery <i>Molecular SuperRotors: Control and properties of molecules in extreme rotational states</i>	Au nombre des experts figurent Irene Mikawoz (Bur. régional des Prairies du CRSNG), Donna Strickland (U. de de Waterloo), Ashrit Pandurang (U. de Moncton) et Wayne Hocking (U. Western). D'autres noms d'experts (chercheurs et partenaires de l'industrie) seront annoncés.	14h45
(G)* MAYER, Adam <i>Double-beta decay half-life of ^{96}Zr – nuclear physics meets geochemistry</i>			Session Ends / Fin de la session			15h00
Session Ends / Fin de la session				Session Ends / Fin de la session	Session Ends / Fin de la session	15h15
Pause santé (CCIS L2 Foyer)						

Monday, June 15 (cont'd)

15h45 17h15	CCIS 4-285 (cap. 18)	CAP-NSERC Liaison Committee (LC) Business Meeting (Chair: B. Whelan, LC Chair)			
TIME	NINT Taylor Room (cap. 95)	CCIS L2-190 (cap. 302)	CAB 243 (cap. 132)	CCIS 1-140 (cap. 157)	CCIS L1-140 (cap. 196)
	(M2-1) Computational methods in condensed matter physics (DCMMP) / Méthodes numériques en physique de la matière condensée (DPMCM) Chair: Jesko Sirker, University of Manitoba	(M2-2) Material growth and processing (DCMMP) / Croissance et traitement des matériaux (DPMCM) Chair: David Broun, Simon Fraser University	(M2-3) Theory, modelling and space weather II (DASP) / Théorie, modélisation et climat spatial II (DPAE) Chair: David Knudsen, University of Calgary	(M2-4) Cosmic Frontier: Cosmology I (DTP-PPD-DIMP) / Frontière cosmique: cosmologie I (DPT-PPD-DPIM) Chair: James Pinfold, University of Alberta	(M2-5) Nuclear Astrophysics (DNP) / Astrophysique nucléaire (DPN) Chair: Barry Davids, TRIUMF
15h45	(i) RAPPOPORT, Tatiana <i>Extrinsic Spin Hall Effect in Graphene</i>	(i) MUN, Eundeok <i>Field-tuned quantum criticality of heavy fermion systems</i>	(i) SYDORENKO, Dmytro <i>Development of Comprehensive Model of Earth Ionosphere and its Application for Studies of MI-coupling</i>	(i) GREEN, Daniel <i>Probing the Nature of Inflation</i>	(i) HERWIG, Falk <i>The turbulent hydrodynamics and nuclear astrophysics of anomalous stars from the early universe</i>
16h00					
16h15	(U) PALMER, Kameron <i>Klein Tunneling in Graphene</i>	(G)* OBIED, Laila <i>Ge:Mn Dilute Magnetic Semiconductor</i>	(i) NIKOLIC, Ljubomir <i>Solar wind modelling for operational forecasting</i>	CAMPBELL, Sheldon <i>Determining Power Spectra of High Energy Cosmics</i>	(i) OUYED, Rachid <i>Quark-Novae: Implications to High-Energy and Nuclear Astrophysics</i>
16h30	ALMUDALLAL, Ahmad <i>Extensions of Kinetic Monte Carlo simulations to study thermally activated grain reversal in dual-layer Exchange Coupled Composite recording media.</i>	BISSON, Jean-François <i>The nanostructure of (Ybx, Y1-x)2O3 thin films obtained by reactive crossed-beam laser ablation using bright-field and high-angle annular dark-field STEM imaging.</i>		(G)* PADILLA, Ivan <i>Searching for the echoes of inflation from a balloon - The first SPIDER flight</i>	
16h45	(G) ROBERT, Pavelich <i>The Kronig-Penney model extended to arbitrary potentials via numerical matrix mechanics</i>	(G)* BAHRAMI YEKTA, Vahid <i>Investigation of the effect of growth condition on defects in MBE grown GaAs1-xBix</i>	FLEMING, Sean W. <i>Using an information theory-based method for statistical detection of high-frequency climate signals in northern-hemisphere water supply variations</i>	Session Ends / Fin de la session	(U) WELBANKS, Luis <i>Hadronic-to-Quark-Matter Phase Transition: Effects of Strange Quark Seeding.</i>
17h00	POLACHIC, Christopher <i>A Multiorbital DMFT Analysis of Electron-Hole Asymmetry in the Dynamic Hubbard Model</i>	(G)* HUFF, Taleana <i>Atomic Force Microscopy Characterization of Hydrogen Terminated Silicon (100) 2x1 Reconstruction</i>	Session Ends / Fin de la session		Session Ends / Fin de la session
17h15	Session Ends / Fin de la session	Session Ends / Fin de la session			
Welcome BBQ Reception (CCIS Ground Level Foyer)					
19h30-21h30	SUB Myer Horowitz Theatre (Chair: R. Fedosejevs, President, CAP) M-HERZ	Miguel Alcubierre, National Univ. of Mexico <i>Faster than the Speed of Light</i> Followed by a reception in the SUB Dinwoodie Lounge			Herzberg Memorial Public Lecture (CAP) (see pg. 10 for more information)

lundi 15 juin (suite)

CCIS 4-285 (cap. 18)	Réunion d'affaires du comité de liaison ACP-CRSNG (Chair: B. Whelan, Président du LC)				15h45 -17h15
CCIS 1-160 (cap. 157)	CCIS L1-160 (cap. 196)	CAB 239 (cap. 106)	CCIS L1-047 (cap. 56)	CCIS L2-200 (cap. 302)	HEURE
(M2-6) Radiation Therapy (DMBP-DNP) / Thérapie par rayonnement (DPMB-DPN) Chair: Melanie Martin, University of Winnipeg	(M2-7) Cosmic frontier: Dark matter I (PPD-DTP) / Frontière cosmique: matière sombre I (PPD-DPT) Chair: Kevin Graham, Carleton University	(M2-8) Teaching Physics to a Wider Audience (DPE) / Enseigner la physique à un auditoire plus vaste (DEP) Chair: Adam J. Sarty, Saint Mary's University	(M2-9) Advanced Instrumentation at Major Science Facilities: Accelerators (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: accélérateurs (DPIM) Chair: Kirk Michaelian, Natural Resources Canada	(M2-10) Atomic and Molecular Spectroscopy: microwave to X-ray (DAMOPC) / Spectroscopie atomique et moléculaire: des micro-ondes aux rayons X (DPAMPC) Chair: Steven Rehse, University of Windsor	
(G)* DAVIS, William <i>Medical linear accelerator mounted mini-beam collimator: transferability study</i>	(i) CUI, Yanou <i>Status of Dark Matter Theories</i>	(G) DAUPHINEE, Tyler <i>Asymmetric Wavefunctions from Tiny Perturbations</i>	(i) CHAPMAN, Dean <i>CLS 2.0: The Next 10 Years</i>	(i) PREDOI-CROSS, Adriana <i>Spectroscopic Line-shape Studies for Environmental and Metrologic Applications</i>	15h45
(G)* CRUJE, Charmainne <i>Cancer cell targeting gold nanoparticles for therapeutics</i>		DONEV, Jason <i>An online resource for teaching about energy</i>			16h00
(i) FALLONE, B. Gino <i>Development and imaging of the World's first Whole-Body Linac-MRI Hybrid System</i>	(i) CAI, Bei <i>The DEAP-3600 Dark Matter Experiment -- Updates and First Commissioning Data Results</i>	BROWN, Jo-Anne <i>Essential Psychology in Physics - MBTI and You</i>	CHEVRIER, David <i>Acquaman: Scientific Software as the Beamline Interface</i>	LEES, Ronald <i>CLS Synchrotron FIR Spectroscopy of High Torsional Levels of CD3OH: The Tau of Methanol</i>	16h15
		BROWN, Jo-Anne <i>Essential Psychology in the Physics Classroom - Five Steps to Improve Classroom Effectiveness</i>	(G)* SAMADI, Nazanin <i>A Phase Space Beam Position Monitor for Synchrotron Radiation</i>	(G)* PECK, Ryan <i>Analysis of Quantum Defects in high energy Helium P states</i>	16h30
CRANMER-SARGISON, Gavin <i>A Systematic Approach to Standardizing Small Field Dosimetry in Radiotherapy Applications</i>	(G)* SAGE, Fred <i>Direct Detection Prospects for Higgs-portal Singlet Dark Matter</i>	Session Ends / Fin de la session		WURTZ, Ward <i>Observation of Wakefields in Coherent Synchrotron Radiation at the Canadian Light Source</i>	16h45
(G) FERNANDES, Donald A. <i>Multifunctional perfluorocarbon nanoemulsions for cancer therapy and imaging</i>	(G)* MITRA, Pitam <i>Status of the PICO-60 Dark Matter Search Experiment</i>				17h00
			Session Ends / Fin de la session	Session Ends / Fin de la session	17h15
Réception d'accueil avec BBQ (CCIS Ground Level Foyer)					
SUB Myer Horowitz Theatre (Chair: R. Fedosejevs, Président, CAP) M-HERZ	Miguel Alcubierre, National Univ. of Mexico <i>Plus rapide que la lumière</i> suivie d'une réception dans le SUB Dinwoodie Lounge			Conférence commémorative publique Herzberg (ACP) (voir p. 9 pour plus d'informations)	19h30 -21h30

Tuesday, June 16

07h30-09h00	CAP Foundation Annual General Meeting (Chair: R. Mann, University of Waterloo)				
08h30-18h00	Teachers' Day see pg. 15 for details				
08h45-10h15	Commercial Publishers' Session: Resources to Enhance University Physics Teaching see pg. 15 for details				
09h00-10h30	CAP Foundation Board of Directors Meeting (Chair: R. Mann, University of Waterloo)				
TIME	NINT Taylor room (cap. 95)	CAB 235 (cap. 106)	CAB 243 (cap. 132)	CCIS L1-160 (cap. 196)	CCIS 1-160 (cap. 157)
	(T1-1) Superconductivity (DCMMP) / Supraconductivité (DPMCM) Chair: Tatiana Rappoport, Universidade Federal do Rio de Janeiro	(T1-2) Many body physics & Quantum Simulation (DAMOPC-DCMMP) / Physique des N corps et simulation quantique (DPAMPC-DPMCM) Chair: Shohini Ghose, Wilfrid Laurier University	(T1-3) Ground-based / in situ observations and studies of space environment I (DASP) / Observations et études de l'environnement spatial, sur terre et in situ I (DPAE) Chair: Konstantin Kabin, Royal Military College	(T1-4) Mathematical Physics (DTP) / Physique mathématique (DPT) Chair: Andrew Frey, University of Winnipeg	(T1-5) Energy Frontier: Susy & Exotics I (PPD-DTP) / Frontière d'énergie: supersymétrie et particules exotiques I (PPD-DPT) Chair: Reyhaneh Rezvani, Université de Montréal
08h45	(i) BONN, D.A. <i>Scanning Tunneling Spectroscopy of LiFeAs</i>	(i) O'DELL, Duncan <i>Universal features of quantum dynamics: quantum catastrophes</i>	(i) SEAGER, Sara <i>Exoplanet Atmospheres: Triumphs and Tribulations</i>	(i) DORAN, Charles <i>Geometrization of N-Extended 1-Dimensional Supersymmetry Algebras</i>	(i) GREGOIRE, Thomas <i>Natural and unnatural SUSY</i>
09h00					
09h15	(i) TANAKA, Kaori <i>Interplay of charge density waves and superconductivity</i>	HALJAN, Paul C <i>Hot and Cold Dynamics of Trapped Ion Crystals near a Structural Phase Transition</i>	SCOTT, Jeremy <i>The Far-Infrared Universe: from the Universe's oldest light to the birth of its youngest stars</i>	(i) YEATS, Karen <i>Some discrete-flavoured approaches to Dyson-Schwinger equations</i>	(i) GECSE, Zoltan <i>Hunt for Supersymmetry with the ATLAS detector at LHC</i>
09h30		GHOSH, Joydip <i>Simulating Anderson localization via a quantum walk on a one-dimensional lattice of superconducting qubits</i>	KOUZNETSOV, Alexei <i>Neutron Monitor Atmospheric Pressure Correction Method Based on Galactic Cosmic Rays tracing and MCNP Simulations of Cascade Showers</i>		
09h45	JULIAN, Stephen <i>Quantum oscillation studies of quantum criticality in PrOsSb_{12}</i>	(i) BOOTH, James <i>Cold Atom Metrology: Progress towards a New Absolute Pressure Standard</i>	(G)* CUSHLEY, Alex <i>Ionospheric Sounding Opportunities Using Signal Data From Pre-existing Amateur Radio And Operational Networks</i>	DIAZ BENITO, Pablo <i>Novel Charges in CFT's</i>	(G) DALLAIRE, Frederick <i>A search for heavy gluon and vector-like quark in the 4b final state in pp collisions at 8 TeV</i>
10h00	(G)* CHANDLER, Carl <i>A Variational Wave Function for Electrons coupled to Acoustic Phonons</i>		PREDOI-CROSS, Adriana <i>Self- and Air-Broadened Line Shape Parameters of Methane in the 2.3 Microns Range</i>	(G) MIKULA, Paul <i>Yang-Mills Flow in the Abelian Higgs Model</i>	MORRISSEY, David <i>Electroweak Baryogenesis and the LHC</i>
10h15	Session ends / Fin de la session	Session ends / Fin de la session	Session ends / Fin de la session	Session ends / Fin de la session	Session ends / Fin de la session
10h15	CCIS 1-430 (cap. 550) (Chair: A. Sarty, VP, CAP)				
	Chitra Rangan, University of Windsor <i>Teaching Undergraduate Physics Medal Recipient - see pg. 11</i>				
10h45	Health Break with Exhibitors (CCIS L2 Foyer)				

mardi 16 juin

CCIS 4-285 (cap. 18)		Assemblée générale annuelle de la Fondation de l'ACP (Chair: R. Mann, U. Waterloo)				07h30 -09h00
CCIS L1-047 (cap. 56)		Journée des enseignants voir p. 15 pour les détails				08h30 -18h00
CCIS L1-029 (cap. 44)		Session des éditeurs commerciaux : ressources visant à améliorer l'enseignement de la physique à l'Université voir p. 15 pour les détails				08h45 -10h15
CCIS 4-285 (cap. 18)		Réunion du Conseil d'administration de la Fondation de l'ACP (Chair: R. Mann, U. Waterloo)				09h00 -10h30
CCIS 1-140 (cap. 157)	CCIS L1-140 (cap. 196)	CCIS 1-430 (cap. 550)	CCIS L2-190 (cap. 302)	CCIS L2-200 (cap. 302)	CAB 239 (cap. 106)	HEURE
(T1-6) Cosmic Frontier: Cosmology II (PPD-DTP-DIMP) / Frontière cosmique: cosmologie II (PPD-DTP-DPIM) Chair: Claudio Kopper, University of Alberta	(T1-7) Nuclear Structure I (DNP) / Structure nucléaire I (DPN) Chair: Adam Garnsworthy, TRIUMF	(T1-8) Special session to honor Dr. Akira Hirose I (DPP) / Session speciale en l'honneur de Dr. Akira Hirose I (DPP) Chair: Luc Stafford, Université de Montréal	(T1-9) Nanostructured Surfaces and Thin Films (DSS-DCMMP) / Surfaces et couches minces nanostructurées (DSS-DPMCM) Chair: Steve Patitsas, University of Lethbridge	(T1-10) THz science and applications (DAMOPC) / Sciences et applications des THz (DPAMPC) Chair: Matthew Reid, UNBC	(T1-11) Medical Imaging (DMBP) / Imagerie médicale (DPMB) Chair: Melanie Martin, University of Winnipeg	
(i) SMITH, Kendrick <i>Planck, gravity waves, and cosmology in the 21st century</i>	(i) ROGACHEV, Grigory <i>Light Exotic Nuclei Studied via Resonance Scattering</i>	(i) ZHUANG, Ge <i>Overview of the Recent J-TEXT Results</i>	ABDEL SAMAD, Bassel <i>Electrical and optical properties of electrochromic Tungsten trioxide (WO3) thin films at temperature range 300 to 500K</i>	(i) COOKE, David <i>Ultrafast dynamics of mobile charges and excitons in hybrid lead halide perovskites</i>	CAMPBELL, Melanie <i>The Rate of Reduction of Defocus in the Chick Eye is Proportional to Retinal Blur</i>	08h45
			(U)* BELANGER, Randy <i>Characterization of the 2D percolation transition in ultrathin Fe/W(110) films using the magnetic susceptibility</i>		ELHAMI, Esmat <i>Image Analysis and Quantification for PET Imaging</i>	09h00
(i) SCOTT, Douglas <i>New results from Planck</i>	(i) KWIATKOWSKI, Anna <i>Low-energy, precision experiments with ion traps: mass measurements and decay spectroscopy</i>	(i) DING, Weixing <i>Magnetic Fluctuations Measurements in Magnetized Confinement Plasmas</i>	PODUSKA, Kristin <i>You don't know what you've got 'till it's gone: ambient surface degradation of ZnO powders</i>	(i) MORRIS, Denis <i>Carrier dynamics in semiconductor nanowires studied using optical-pump terahertz-probe spectroscopy</i>	(i) WILMAN, Alan <i>Magnetic Susceptibility Mapping in Human Brain using High Field MRI</i>	09h15
			SALLABI, Abdulwahab <i>Density Functional Theory Study of Hydrogen on Metal Oxide and Insulator Surfaces</i>			09h30
HANNA, David <i>The CHIME Dark Energy Project</i>	(G) EVITTS, Lee J. <i>Electric Monopole Transition Strengths in ^{62}Ni</i>	(i) BRADLEY, Michael <i>Plasma Ion Implantation for Photonic and Electronic Device Applications</i>	Session ends / Fin de la session	(G)* LEFEBVRE, Pascal <i>Towards quantum repeaters using frequency multiplexed entanglement</i>	MARTIN, Melanie <i>Correlating quantitative MR changes with pathological changes in the white matter of the cuprizone mouse model of demyelination</i>	09h45
Session ends / Fin de la session	OLAIZOLA MAMPASO, Bruno <i>Fast-timing measurements in neutron-rich ^{65}Co</i>			(U) JOHN, Caleb <i>True Random Number Generation based on Interference between Two Independent Lasers</i>	WHELAN, Bill <i>Interstitial point radiance spectroscopy in turbid media</i>	10h00
	Session ends / Fin de la session	Session ends / Fin de la session		Session ends / Fin de la session	Session ends / Fin de la session	10h15
CCIS 1-430 (cap. 550) (Chair: A. Sarty, VP, CAP)		Chitra Rangan, University of Windsor (Récipiendaire de la médaille de l'enseignement de la physique au premier cycle) - voir p. 11				T-MEDAL 10h15
Pause santé avec les exposants (CCIS L2 Foyer)						10h45

Tuesday, June 16 (cont'd)

11h15	CCIS 1-430 (cap. 550) (Chair: R. Fedosejevs, President, CAP)		Plenary Session - NSERC Presentation by Elizabeth Boston Director, Mathematical, Environmental and Physical Sciences		T-PLN1
11h45	CCIS 1-430 (cap. 550) (Chair: B. Frisken, DAA, CAP)		Plenary Session – Report from NSERC EG Chair Report, Li-Hong Xu		T-PLN2
12h15	CCIS 1-430 (cap. 550) (Chair: B. Frisken, DAA, CAP)		Plenary Session - CAP-NSERC Liaison Committee Report by B. Whelan, Chair LC		T-PLN3
12h30-13h45	CCIS 4-285 (Faculty Lounge)	CAP Past Presidents' Lunch (Chair: K. Ragan, Past President, CAP)	CCIS L1-029 (cap. 44)	New Faculty Lunch Meeting with NSERC (Chair: B. Frisken, DAA, CAP)	
12h30-13h45	Annual Meeting for DAMOPC CCIS L2-200	Annual Meeting for DNP CCIS L1-140	CCIS 2-122 (cap. 18)	IPP Scientific Council Meeting (Chair: M. Roney, University of Victoria)	
LUNCH	Annual Meeting for DPP CCIS L2-190	Annual Meeting for DMBP CAB 239			
TIME	NINT Taylor Room (cap. 95)	CAB 235 (cap. 106)	CAB 243 (cap. 132)	CCIS L1-047 (cap. 56)	CCIS L1-140 (cap. 196)
	(T2-1) Materials characterization: microscopy, imaging, spectroscopy (DCMMP) / Caractérisation des matériaux: microscopie, imagerie, spectroscopie (DPMCM) Chair: Eundeok Mun, Simon Fraser University	(T2-2) Condensed Matter Theory (DCMMP-DTP) / Théorie de la matière condensée (DPMCM-DPT) Chair: Joseph Maciejko, University of Alberta	(T2-3) Ground-based / in situ observations and studies of space environment II (DASP) / Observations et études de l'environnement spatial, sur terre et in situ II (DPAE) Chair: Donald Danskin, NRC	(T2-4) Fields and Strings (DTP) / Champs et cordes (DPT) Chair: Rainer Dick, University of Saskatchewan	(T2-5) Nuclear Structure II (DNP) / Structure nucléaire II (DPN) Chair: Jens Dilling, TRIUMF
13h45	(i) YURTSEVER, Aycan <i>Ultrafast Transmission Electron Microscopy and its Nanoplasmonic Applications</i>	(ii) SIRKER, Jesko <i>Many-body localization and potential realizations in cold atomic gases</i>	(i) COGGER, Leroy <i>New View of Aurora from Space using the e-POP Fast Auroral Imager</i>	(i) FORTIN, Jean-Francois <i>Scale and Conformal Invariance in Quantum Field Theory</i>	(i) BENDER, Peter <i>Single particle structure in neutron-rich Sr isotopes approaching $N=60$</i>
14h15	(i) MALAC, Marek <i>Means of mitigating the limits to characterization of radiation sensitive samples in an electron microscope.</i>	(G)* non-member VASUDEV, Pranai <i>Light-Trapping Architecture for Room Temperature Bose-Einstein Condensation of Exciton-Polaritons near Telecommunication Frequencies</i>	YAU, Andrew <i>CASSIOPE e-POP and coordinated ground-based studies of polar ion outflow, auroral dynamics, wave-particle interactions, and radio propagation</i>	(i) FREY, Andrew <i>Dynamics of Gravitational Collapse in AdS Space-Time</i>	(G)* CHESTER, Aaron <i>Doppler shift lifetime measurements using the TIGRESS Integrated Plunger</i>
14h30		MEYER, Ralf <i>Molecular-dynamics simulations of two-dimensional Si nanostructures</i>	(G)* THEMENS, David <i>The nature of GPS receiver bias variabilities: An examination in the Polar Cap region and comparison to Incoherent Scatter Radar</i>		DAVIDS, Barry <i>The Electromagnetic Mass Analyser EMMA</i>
14h45	(G)* JELIC, Vedran <i>Terahertz Scanning Tunneling Microscopy in Ultrahigh Vacuum</i>	ALMUDALLAL, Ahmad <i>Inverse melting in a simple 2D liquid</i>	JAMES, Gordon <i>Transmission of Waves from a High-Frequency Ionospheric Heater to the Topside Ionosphere</i>	(G)* HUTCHINSON, Joel <i>Thermodynamic and Transport Properties of a Holographic Quantum Hall System</i>	(G)* PARK, Jason <i>Isomeric decay spectroscopy of ^{96}Cd</i>
15h00	(G)* XU, Ben <i>Identifying differences in long-range structural disorder in solids using mid-infrared spectroscopy</i>	(G)* ZHANG, Xiaoming <i>Cellular Automaton with nonlinear Viscoelastic Stress Transfer to Model Earthquake Dynamics</i>	KOUSTOV, Alexandre <i>Dawn-dusk asymmetry in the intensity of polar cap flows as seen by SuperDARN</i>	(G) CAO, ChunJun <i>Constraints and Bulk Physics in the AdS/MERA Correspondence</i>	(G)* RADICH, Allison <i>New decay modes of the high-spin isomer of ^{124}Cs</i>
15h15	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
	Health Break with Exhibitors (CCIS L2 Foyer)				

mardi 16 juin (suite)

CCIS 1-430 (cap. 550) (Chair: R. Fedosejevs, Président, CAP)		Session plénière - Présentation du CRSNG par Elizabeth Boston, Directrice, Mathematical, Environmental and Physical Sciences		T-PLEN1	11h15	
CCIS 1-430 (cap. 550) (Chair: B. Frisken, DAA, CAP)		Session plénière - Rapport de la présidente du GE-CRSNG, Li-Hong Xu		T-PLEN2	11h45	
CCIS 1-430 (cap. 550) (Chair: B. Frisken, DAA, CAP)		Session plénière - Rapport du Comité de liaison ACP- CRSNG par le président, B. Whelan		T-PLEN3	12h15	
CCIS 4-285 (Faculty Lounge)	Dîner des anciens présidents de l'ACP (Chair: K. Ragan, Ancien président, ACP)	CCIS L1-029 (cap. 44)	Dîner-rencontre des nouveaux professeurs avec le CRSNG (Chair : B. Frisken, DAA, CAP)		12h30 -13h45	
Assemblée annuelle DPAMPC CCIS L2-200		Assemblée annuelle DPN CCIS L1-140		CCIS 2-122 (cap. 18)	Réunion du comité scientifique de l'IPP (Chair : M. Roney, University of Victoria)	
Assemblée annuelle DPP CCIS L2-190		Assemblée annuelle DPMB CAB 239				DINER
CAB 239 (cap. 106)	CCIS 1-160 (cap. 157)	CCIS 1-140 (cap. 157)	CCIS L1-160 (cap. 196)	CCIS L2-200 (cap. 302)	CCIS L2-190 (cap. 302)	HEURE
(T2-6) Nuclear Physics in Medicine (DNP-DMBP-DIAP) / Physique nucléaire en médecine (DPN-DPMB-DPIA) Chair: Andrei Semenov, Jefferson Lab	(T2-7) Energy Frontier: Susy & Exotics II (PPD) / Frontière d'énergie: supersymétrie et particules exotiques II (PPD) Chair: Dean Karlen, University of Victoria	(T2-8) Cosmic frontier: Dark matter II (PPD) / Frontière cosmique: matière sombre II (PPD) Chair: Aksel Hallin, University of Alberta	(T2-9) Gender and Arts in Physics Teaching (CEWIP-DPE) / Genre et arts dans l'enseignement de la physique (CEFEP-DEP) Chair: Marina Milner-Bolotin, University of British Columbia	(T2-10) Cold and trapped atoms, molecules and ions (DAMOPC) / Atomes, molécules et ions froids et piégés (DPAMPC) Chair: Chitra Rangan, University of Windsor	(T2-11) Laser, Laser-matter interactions, and plasma based applications (DPP) / Lasers, interactions laser-matière et applications basées sur les plasmas (DPP) Chair: Andranik Sarkissian, Plasmionique	
(i) SCHAFFER, Paul <i>Accelerator-Based Medical Isotope Production at TRIUMF</i>	(i) TAYLOR, Wendy <i>Searches for Exotic Physics at ATLAS</i>	(i) GIROUX, Guillaume <i>Status of the PICASSO and PICO experiments</i>	(i) LEWANDOWSKI, Heather <i>Model-Based Reasoning in Upper-division Lab Courses</i>	(i) THOMPSON, Robert <i>Project ALPHA: Applying AMO Physics to Antimatter and Using Antimatter to Study AMO Physics</i>	(i) STAFFORD, Luc <i>Modification of graphene films in the flowing afterglow of microwave plasmas at reduced-pressure</i>	13h45
(i) DE JONG, Mark <i>Producing Medical Isotopes with Electron Linacs</i>	(G)* PALACINO CAVIEDES, Gabriel David <i>A Search for Magnetic Monopoles and Exotic Long-lived Particles with Large Electric Charge at ATLAS</i>	SMITH, Ben <i>DEAP-3600 trigger - the needle in the haystack</i>	(i) GHOSE, Shohini <i>Fabulous Physicists from Around the World: The tale of ICWIP 2014</i>	(G)* SEIFY, Lohrasp <i>Evaporative Cooling in Electromagnetic Radio Frequency Ion Traps</i>	(i) TSUI, Ying <i>Pump-probe Studies of Warm Dense Matter</i>	14h15
	(i) PINFOLD, James <i>The MoEDAL Experiment at the LHC - a New Light on the High Energy Frontier</i>	BELTRAN, Berta <i>Early studies of detector optical calibrations for DEAP-3600</i>		JIAN, Bin <i>Demonstration of a Microtrap Array and manipulation of Array Elements</i>		14h30
(G)* GARCIA, Fatima <i>Calculation of isotope yields for radioactive beam production</i>		(G)* MCELROY, Thomas <i>Single photon counting for the DEAP dark matter detector</i>	DAY, James <i>Gender gaps in a first-year physics lab</i>	(i) LEBLANC, Lindsay <i>Engineered spin-orbit coupling in ultracold quantum gases</i>	(G)* DUROCHER-JEAN, Antoine <i>Deposition of functional coatings on glass substrates using a recently-developed atmospheric-pressure microwave plasma jet</i>	14h45
(G) SANCHEZ-FORTUN STOKER, Jamie <i>Coincidence Measurements using the SensL MatrixSM-9 Silicon-photomultiplier Array</i>					(G)* MO, Mianzhen <i>Measurements of Ionization States in Warm Dense Aluminum with Femtosecond Betatron Radiation from a Laser Wakefield Accelerator</i>	15h00
Session Ends / Fin de la session				Session Ends / Fin de la session	Session Ends / Fin de la session	15h15
Pause santé avec les exposants (CCIS L2 Foyer)						

Tuesday, June 16 (cont'd)

TIME	NINT Taylor Room (cap. 95)	CCIS L2-200 (cap. 302)	CAB 243 (cap. 132)	CCIS 1-140 (cap. 157)	CAB 235 (cap. 106)	
	T3-1 Materials characterization: electrical, optical, thermal (DCMMP) / Caractérisation des matériaux: électrique, optique, thermique (DPMCM) Chair: Wayne Hiebert, National Institute for Nanotechnology	T3-2 Quantum Computation and Communication (DTP-DCMMP-DAMOPC) / Communication et calcul quantique (DPT-DPMCM-DPAMPC) Chair: Arundhati Dasgupta, University of Lethbridge	T3-3 Ground-based / in situ observations and studies of space environment III (DASP) / Observations et études de l'environnement spatial, sur terre et in situ III (DPAE) Chair: Richard Marchand, University of Alberta	T3-4 Cosmic Frontier: Dark Matter III (PPD)/ Frontière cosmique: matière sombre III (PPD) Chair: Thomas Grégoire, Carleton University	T3-5 Study of Neutrino Oscillations (PPD-DTP-DNP) / Études des oscillations de neutrinos (PPD-DPT-DPN) Chair: Zoltan Gece, University of British Columbia	
15h45	(i) PISANA, Simone <i>A pump-probe technique to measure the Curie temperature distribution of exchange-decoupled nanoscale ferromagnet ensembles</i>	(ii) COISH, Bill <i>Improving Physical Models of Qubit Decoherence and Readout</i>	(ii) ARCHER, William <i>Anisotropic ion temperatures and ion flows adjacent to auroral precipitating electrons</i>	(i) GERBIER, Gilles <i>Status of the SuperCDMS and European Cryogenic Dark Matter experiments</i>	(i) HASTINGS, Nicholas <i>Status of Long-Baseline Neutrino Experiments</i>	
16h00						
16h15	(ii) BROUN, David <i>Optical properties and Fermiology near field-tuned quantum critical points</i>	(G)* PUGH, Christopher <i>NanoQEY Quantum Key Distribution Satellite</i>	JAYACHANDRAN, Thayyil <i>Generation, dynamics, and decay of a polar cap patch</i>	(G)* UNDERWOOD, Ryan <i>New Pulse Processing Algorithm for SuperCDMS</i>	(G)* SHAKER, Fady <i>Electron Neutrino Cross Section Measurements at the T2K Off-Axis Near Detector</i>	
16h30		(G)* DESHMUKH, Chetan <i>Towards a Quantum Non-Demolition Measurement for Photonic Qubits</i>	(G)* PATRICK, Matthew <i>Temporal and Spatial Evolution of Poynting Flux Measured with Swarm</i>	BUENO, James <i>Alpha particle backgrounds from the neck of the DEAP-3600 dark matter detector</i>	(G)* NIELSEN, Christine <i>Constraining Oscillation Analysis Inputs at the T2K Near Detector</i>	
16h45	(G)* LANE, Stephen <i>Protein Biosensing with Fluorescent-Core Microcapillaries</i>	Session Ends / Fin de la session	(G) SHEN, Yangyang <i>Cusp Ion Upflows Observed by e-POP SEI and RISR-N: Initial Results</i>	(G)* CRANSHAW, Derek <i>Optimizing the wavelength-shifter thickness for alpha suppression in the DEAP-3600 detector</i>	(G)* WOOD, Tania <i>Atmospheric Neutrino Measurement with IceCube Neutrino Observatory</i>	
17h00	(G)* PURSCHKE, David <i>Ultrafast modulation of photoluminescence in semiconductors by intense terahertz pulses</i>		Session Ends / Fin de la session	Session Ends / Fin de la session	KONAKA, Akira <i>Experimental test of the unitarity of the leptonic mixing (PMNS) matrix</i>	
17h15	Session Ends / Fin de la session				Session Ends / Fin de la session	
17h00-19h00	Athabasca Hall 227 Department Leaders Business Meeting (Chair: Barbara Frisken, Director, Academic Affairs, CAP)					T-LEAD
19h00-21h30	The Hardware Grill 9698 Jasper Ave., Edmonton CJP Editorial Board Meeting (Chair: Michael O. Steinitz, St. Francis-Xavier University)					T-CJP
19h00-22h00	CCIS L2-190 (cap. 302) Special Science Policy and Career Path Session see pg. 16 for details (Chair: Christopher Pugh, University of Waterloo)					T-SciPol

mardi 16 juin (suite)

CCIS L1-140 (cap. 196)	CCIS L1-160 (cap. 196)	CCIS 1-160 (cap. 196)	CAB 239 (cap. 106)	CCIS L2-190 (cap. 302)	HEURE
T3-6 Nuclear Structure III (DNP) / Structures nucléaires III (DPN) Chair: Reiner Kruecken, TRIUMF	T3-7 Panel on Women in Physics (CEWIP) / Table ronde sur les femmes en physique (CEFEP) Chair: Shohini Ghose, Wilfrid Laurier University	T3-8 Advanced Instrumentation at Major Science Facilities: Detectors I (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: détecteurs I (DPIM) Chair: Kirk Michaelian, NRC	T3-9 Molecular Biophysics (DMBP) / Biophysique moléculaire (DPMB) Chair: Maikel Rheinstadter, McMaster University	T3-10 Special session to honour Dr. Akira Hirose II (DPP) / Session spéciale en l'honneur du Dr Akira Hirose II (DPP) Chair: Chijin Xiao, University of Saskatchewan	
SMITH, Jenna <i>Beta-decay from ^{47}K to ^{47}Ca with GRIFFIN</i>	Panellists: Sara Seager (MIT), Adriana Predoi-Cross (University of Lethbridge), Wendy Taylor (York University)	(i) KRUECKEN, Reiner <i>Advanced Instrumentation at TRIUMF</i>	(i) WOODSIDE, Michael <i>Watching proteins fold: capturing the conformational diffusion of single molecules during structural self-assembly</i>	(i) ISHIHARA, Osamu <i>From Plasma to Complex Plasma</i>	15h45
(G)* PORE, Jennifer <i>Investigating the Structure of ^{46}Ca through the β^- Decay of ^{46}K Utilizing the New GRIFFIN Spectrometer</i>					16h00
(G)* DUNLOP, Ryan <i>The first GRIFFIN Experiment: An investigation of the $\beta\beta$-process yields for ^{116}Cd</i>		(G)* BALE, Jeff <i>Development and simulations of the CANREB RFQ buncher and cooler at the TRIUMF facility</i>	LINHANANTA, Apichart <i>Coarse-Grained computer simulations of Alzheimer's beta-amyloid peptides, using the Mercedes-Benz Hydrogen Bond Potential</i>	(i) SMOLYAKOV, Andrei <i>Fluctuations and Transport in Hall devices with ExB drift</i>	16h15
(G)* MACLEAN, Andrew <i>Gamma-Gamma Angular Correlation Measurements With GRIFFIN</i>		RETIERE, Fabrice <i>Photodetection with SiPM in particle physics and materials science</i>	(U)* TANG, Jennifer <i>The Formation of Alzheimer's Plaques in Synthetic Membranes</i>		16h30
(G)* DUNLOP, Michelle <i>High-Precision Half-Life Measurements for the Superalloyed $\beta^+\beta^-$ emitter ^{10}C</i>		BARRETTE, Jean <i>The Electrodynamometer of the McPherson Collection of Scientific Instruments</i>	(G)* GIRARDIN, Robert <i>Alzheimer's Disease Amyloid Beta(25-35): An Oligomeric Aggregation Simulation From Monomers to Ordered Filaments</i>	BOWMAN, John <i>Adaptive Matrix Transpose Algorithms for Distributed Multicore Processors</i>	16h45
(G)* BERNIER, Nikita <i>The First Radioactive Beam at GRIFFIN: ^{26}Na for Decay Spectroscopy</i>		Session Ends / Fin de la session	(G) ZHANG, Zhenfu <i>Kinetics of Chain Motions within the disordered eIF4E-BP2 protein</i>	(G)* BEHBAHANI, R. A. <i>Dense Plasma Focus for Short-Lived Isotope Activation</i>	17h00
Session Ends / Fin de la session	Session Ends / Fin de la session		Session Ends / Fin de la session	Session Ends / Fin de la session	17h15
Athabasca Hall 227		Réunion des directeurs de départements (Chair: Barbara Frisken, Directrice, Affaires académiques, ACP)			T-LEAD 17h00 -19h00
The Hardware Grill 9698 Jasper Ave., Edmonton		Réunion du comité de rédaction de la RCP (Chair: Michael O. Steinitz, St. Francis-Xavier University)			T-CJP 19h00 -21h30
CCIS L2-190 (cap. 302)		Session spéciale : Politique scientifique et cheminements de carrière en physique voir p. 16 pour les détails (Chair: Christopher Pugh, University of Waterloo)			T-SciPol 19h00 -22h00

Wednesday, June 17

07h30-08h45	CCIS 4-285 (cap. 18)	CNILC Breakfast Meeting (Chair: Jens Dilling, TRIUMF, UBC)			
TIME	NINT Taylor room (cap. 95)	CCIS L2-190 (cap. 302)	CAB 243 (cap. 132)	CAB 235 (cap. 106)	CCIS L1-140 (cap. 196)
	W1-1 Carbon-based materials (DCMMP) / Matériaux à base de carbone (DPMCM) Chair: Rachel Wortis, Trent University	W1-2 Soft Condensed Matter and Soft Interfaces (DMBP-DCMMP) / Matière condensée molle et interfaces molles (DPMB-DPMCM) Chair: Maikel Rheinstadter, McMaster University	W1-3 Special session to honor Dr. Akira Hirose III (DASP-DPP) / Session spéciale en l'honneur du Dr Akira Hirose III (DPAE-DPP) Chair: Alexandre Koustov, University of Saskatchewan	W1-4 Gravity I (DTP) / Gravité I (DPT) Chair: Ingrid Stairs, University of British Columbia	W1-5 Energy frontier: Future developments (PPD) / Frontière d'énergie: développements futurs (PPD) Chair: Richard Polifka, University of Toronto
08h45	(i) KENNETT, Malcolm <i>Chiral symmetry breaking and the quantum Hall effect in monolayer graphene</i>	(i) SIVAK, David <i>Optimal control of microscopic nonequilibrium systems</i>	(i) BURCHILL, Johnathan <i>Up, out, and away: Probing the initial stages of ion outflow with Swarm</i>	(i) KUBIZNAK, David <i>Black hole chemistry: thermodynamics with Lambda</i>	(i) LEIGHT, William Axel <i>Summary of ATLAS-Canada Upgrades</i>
09h00					
09h15	(i) FANCHINI, Giovanni <i>Interfacing organic and carbon-based nanomaterials towards their applications in sustainable energy</i>	MITTLER, Silvia <i>OMCVD AuNP Grown on Polymer Substrates: An approach Towards Mass Fabrication of Biosensors</i>	MARCHAND, Richard <i>Kinetic modelling of Solar Orbiter space environment</i>	EDERY, Ariel <i>Restricted Weyl Invariance in Four-Dimensional Curved Spacetime</i>	(G)* RETTIE, Sebastien <i>Test beam performance measurements of novel Thin Gap Detectors for the ATLAS experiment upgrade.</i>
09h30		TURCOTTE, Raphael <i>In vivo manipulations of single cells using an all-optical platform</i>	(i) SARKISSIAN, Andranik <i>Plasma Technology: Its Current and Future Impact on Various Industries</i>	PLAMONDON, Réjean <i>Revisiting the Solar System and Beyond</i>	(G)* LEFEBVRE, Benoit <i>Performance of the first Canadian-made muon chamber prototype for the ATLAS experiment upgrade.</i>
09h45	DIGNAM, Marc <i>Third Harmonic Terahertz Response Optimization of Doped Monolayer Graphene</i>	(G)* FERNANDES, Dennis D. <i>The oligomeric composition of the M2 muscarinic receptor and the G protein signalling complex: a single molecule study</i>		(G)* COWNDEN, Bradley <i>Linear perturbations of type IIB SUGRA in flux compactifications</i>	(i) KARLEN, Dean <i>Status of the Future Linear Collider</i>
10h00	(G)* KHAN, Mohammad Zahidul Hossain <i>Investigation of the interaction between the single walled carbon nanotube and conjugated oligomers using various dispersion correction DFT methods</i>	(G)* MIRANDA, Chris <i>Effect of lipid composition on peptide-induced coalescence in bicellar mixtures</i>	(U) TCHIR, Zachary <i>ZnO Thin Film Samples Produced by Pulsed Laser Deposition for Ultrafast Laser High Harmonics Generation Studies</i>	KUMAR, Prayush <i>Gravitational-wave searches for Binary Black Holes: waveform models</i>	
10h15	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
	Health Break with Exhibitors (CCIS L2 Foyer)				
10h45	CCIS 1-430 (Chair: Z. Papandreou, DNP Chair)	Plenary Session - Wick Haxton, Univ. of Washington and Univ. of California <i>Neutrino Physics: On Earth and in the Heavens - see pg. 12</i>			
11h30	CCIS 1-430 (Chair: R. Fedosejevs, President, CAP)	Plenary Session - John Page, University of Manitoba (CAP-DCMMP Brockhouse Medal Recipient) - see pg. 12			
12h00	CCIS 1-430 (Chair: R. MacKenzie, VP-Elect, CAP)	Plenary Session - Charles Gale, McGill University (CAP-CRM Prize in Theoretical and Mathematical Physics Recipient) - see pg. 12			

mercredi 17 juin

CCIS 4-285 Réunion du Comité de liaison national canadien de l'UIPPA (cap. 18) (Chair: Jens Dilling, TRIUMF, UBC)					07h30 -08h45
CCIS L1-047 (cap. 56)	CCIS 1-140 (cap. 157)	CCIS L1-160 (cap. 196)	CCIS 1-160 (cap. 157)	CCIS L2-200 (cap. 302)	HEURE
W1-6 Devices (DCMMP) / Dispositifs (DPMCM) Chair: Can-Ming Hu, University of Manitoba	W1-7 Neutrinoless Double-beta Decay II (PPD-DNP) / Double désintégration beta sans neutrino II (PPD-DPN) Chair: Gilles Gerbier, Queen's University	W1-8 Strengthening Physics Departments (DPE) / Renforcer les départements de physique (DEP) Chair: Donald J. Mathewson, Kwantlen Polytechnic University	W1-9 Advanced Instrumentation at Major Science Facilities: Detectors II (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: détecteurs II (DPIM) Chair: Kirk Michaelian, Natural Resources Canada	W1-10 Quantum Optics and Cavity QED (DAMOPC) / Optique quantique et ÉDQ en cavité (DPAMPC) Chair: Shohini Ghose, Wilfrid Laurier University	
(i) XIAO, John Q <i>Optical measurement of spin-orbital torque in magnetic bilayers</i>	(i) GRAHAM, Kevin <i>The EXO Search for Neutrinoless Double Beta Decay</i>	AHRENSMEIER, Daria <i>Learning from our neighbours about "Building a Thriving Undergraduate Physics Program"</i> (i) HODAPP, Theodore <i>Building Thriving Undergraduate Physics Programs</i>	(i) SMITH, Nigel <i>Advanced Instrumentation Techniques developed for SNOLAB science programmes.</i>	(i) SANDERS, Barry <i>High-fidelity single-shot Toffoli gate via quantum control</i>	08h45
					09h00
(G)* HAUER, Bradley <i>Nonlinear Optomechanics for Quantum Nondemolition Measurements</i>	(G)* KHAGHANI, Pouya <i>Modeling the Leaching of ²²²Rn Daughters into the SNO+ Detector</i>		LAWSON, Ian <i>Ultra-Low Background Counting and Assay Studies At SNOLAB</i>	(G)* MIVEHVAR, Farokh <i>Cavity-induced spin-orbit coupled Bose-Einstein condensation: A new approach for exploring cold atoms</i>	09h15
(G)* MACDONALD, Allison <i>Optomechanics in a dilution refrigerator</i>	(G)* SIBLEY, Logan <i>Using ⁶⁰Co as a high precision calibration device for the SNO+ detector</i>	PANEL DISCUSSION	JILLINGS, Chris <i>Maintaining Clean Rooms at the SNOLAB Underground Laboratory</i>	(G)* DIOLORETO, Christopher <i>The effect of off-resonant excitation on intensity-intensity correlation spectra in three-level, lambda systems</i>	09h30
(G)* DOOLIN, Callum <i>Silicon Nitride microdisk resonators as refractometric sensors in water</i>	Session Ends / Fin de la session		Session Ends / Fin de la session	(i) RESCH, Kevin <i>Entangled photon triplets: a new quantum light source and a test of nonlocality</i>	09h45
(G)* EZUGWU, Sabastine <i>Three-dimensional scanning near field optical microscopy imaging of random arrays of copper nanoparticles and their use for plasmonic solar cell enhancement</i>					10h00
Session Ends / Fin de la session		Session Ends / Fin de la session		Session Ends / Fin de la session	10h15
Pause santé avec les exposants (CCIS L2 Foyer)					
CCIS 1-430 Session plénière- Wick Haxton, Univ. of Washington and Univ. of California (Chair: Z. Papandreou, Prés. DNP) <i>La physique des neutrinos : sur la terre et dans les cieux - voir p. 12</i>					W-PLEN 10h45
CCIS 1-430 Session plénière- John Page, University of Manitoba (Chair: R. Fedosejevs, President, CAP) <i>(Récipiendaire de la médaille ACP-DPMCM Brockhouse) - voir p. 12</i>					W-MEDAL1 11h30
CCIS 1-430 Session plénière- Charles Gale, McGill University (Chair: R. MacKenzie, VP-Elect, CAP) <i>(Récipiendaire Prix ACP-CRM en physique théorique et mathématique) - voir p. 12</i>					W-MEDAL2 12h00

Wednesday, June 17 (cont'd)

12h30-13h45	Annual Meeting for DCMMP CAB 235	Annual Meeting for DPE CCIS L1-160	Annual Meeting for DASP CAB 243	LUNCH	
TIME	NINT Taylor room (cap. 95)	CAB 239 (cap. 106)	CCIS 1-140 (cap. 157)	CCIS L1-140 (cap. 196)	CCIS 1-160 (cap. 157)
	W2-1 Spintronics and spintronic devices (DCMMP) / Spintronique et technologies spintroniques (DPMCM) Chair: Can-Ming Hu, University of Manitoba	W2-2 Quantum Information and Quantum Computation (DTP-DCMMP) / Information et calcul quantique (DPT-DPMCM) Chair: Svetlana Barkanova, Acadia U.	W2-3 Gravity II (DTP) / Gravité II (DPT) Chair: Ariel Edery, Bishop's University	W2-4 Testing Fundamental Symmetries I (DNP-PPD) / Tests de symétries fondamentales I (DPN-PPD) Chair: Jenna Smith, TRIUMF	W2-5 Atmospheric physics (DASP) / Physique atmosphérique (DPAE) Chair: T. Jayachandran, UNB
13h45	(i) GOENNENWEIN, Sebastian <i>Spin Currents in Magnetic Insulator/Normal Metal Heterostructures</i>	(i) RAUSSENDORF, Robert <i>Wigner function negativity and contextuality in quantum computation on rebits</i>	(i) YUNES, Nicolas <i>Gravitational Waves Probes of Extreme Gravity Physics</i>	(i) FUJIWARA, Makoto <i>Casting Light on Antimatter: Fundamental Physics with the ALPHA Antihydrogen Trap</i>	(i) HOCKING, Wayne <i>Measurement of Mesospheric Ozone Using Meteor Decay Times</i>
14h00					
14h15	(G)* FANI SANI, Fatemeh <i>Controlling magnetization dynamics with artificial pinning sites in thin magnetic disks</i>	(i) BAUGH, Jonathan <i>Orbital Interference Effects in Nanowire Josephson Junctions for Exploring Majorana Physics</i>	(i) STAIRS, Ingrid <i>Searching for Nanohertz Gravitational Waves Using Pulsars</i>	(i) GERICKE, Michael <i>High Precision Weak Charge Measurements using Parity Violating Electron Scattering: Looking for Signatures of New Physics at the Precision Frontier</i>	(G) KRISTOFFERSEN, Samuel <i>Wind and Gravity Wave Observations with ERWIN-II</i>
14h30	BAI, Lihui <i>Spin pumping in electro-dynamically coupled magnon-photon systems</i>				(G)* LANGILLE, Jeffery <i>Imaging mesospheric winds using the Michelson Interferometer for Airglow Dynamics Imaging (MIADI)</i>
14h45	(U)* GRANDMONT, Dylan <i>Towards Microwave-Frequency Spin Mechanics</i>	(i) GHOSE, Shohini <i>Multiqubit entangled channels for quantum communication in networks</i>	(i) LANDRY, Michael <i>Searching for gravitational waves from compact binary coalescences with Advanced LIGO</i>	MARSHALL, Glen <i>Muon g-2/edm at J-PARC</i>	(i) STRONG, Kimberly <i>CAFTON and PEARL: Using Ground-based FTIR Spectroscopy to Probe Atmospheric Composition over Canada</i>
15h00	(G)* BISWAS, Tushar <i>Explosive molecule detection by nanomechanical resonator and photothermal spectroscopy</i>			(G)* RAND, Evan <i>Investigation of the E2 and E3 matrix elements in ^{200}SHg using direct nuclear reactions</i>	
15h15	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
Health Break with Exhibitor (CCIS L2 Foyer)					
15h45	CCIS 1-430 François Légaré, EMT-INRS (Chair: R. Fedosejevs, President, CAP) (CAP Herzberg Medal Recipient) see pg. 12				W-MEDAL3
16h15	CCIS 1-430 John F. Martin, IPP / University of Toronto (Chair: R. Fedosejevs, President, CAP) (CAP Lifetime Achievement in Physics Medal Recipient) see pg. 13				W-MEDAL4
16h45	CCIS 1-430 CAP President's Report (Chair: R. Fedosejevs, President, CAP)				
17h15	CCIS 1-430 CAP AGM with election of Board and Advisory Council Members (Chair: R. Fedosejevs, President, CAP)				
19h00	CCIS L1-047 "Friends of CAP" Dinner and Meeting (Chair: K.. Ragan, Past President, CAP)				(session ends at 21h00)
19h00	CCIS Ground Floor Foyer (east end) Poster Session, with beer see pg. 46-49				(session ends at 22h00)

mercredi 17 juin (suite)

Assemblée annuelle DPMCM CAB 235		Assemblée annuelle DEP CCIS L1-160		Assemblée annuelle DPAE CAB 243		DINER	12h30 -13h45
CAB 243 (cap. 132)	CCIS L2-190 (cap. 302)	CCIS L1-160 (cap. 196)	CCIS L1-047 (cap. 56)	CCIS L2-200 (cap. 302)	CAB 235 (cap. 106)	HEURE	
W2-6 Special session to honor Dr. Akira Hirose IV (DPP) / Session spéciale en l'honneur du Dr Akira Hirose IV (DPP) Chair: Ying Tsui, University of Alberta	W2-7 Cosmic Frontier: Astrophysics and Neutrinos (PPD) / Frontière cosmique : astrophysique et neutrinos (PPD) Chair: Guillaume Giroux, Queen's U.	W2-8 Labs and/or undergraduate research experiences (DPE) / Expériences de recherche en laboratoire et/ou au premier cycle (DEP) Chair: Daria. Ahrensmeier, Simon Fraser University	W2-9 General Instrumentation and Measurement Physics (DIMP) / Physique générale des instruments et mesures (DPIM) Chair: Kirk Michaelian, NRC	W2-10 Spectroscopy and Optics (DAMOPC) / Spectroscopie et optique (DPAMPC) Chair: Paul Haljan, Simon Fraser University	W2-11 Microfluidics and Driven Motion (DMBP) / Microfluidique et mouvement forcé (DPMB) Chair: Maikel Rheinstadter, McMaster University		
(i) RAMAN, Roger <i>Solenoid-free Plasma Start-up in NSTX using Transient Coaxial Helicity Injection (CHI)</i>	(i) KOPPER, Claudio <i>Recent Results from IceCube</i>	KASTYAK-IBRAHIM, Marzena <i>A New format for Reporting in a First Year Physics Laboratory</i>	(i) GAVRILOV, Dmitry <i>A review of imaging methods in analysis of works of art. Thermographic imaging method in art analysis.</i>	XU, Li-Hong <i>Spin-Rotation Hyperfine Splittings at Moderate to High J Values in Methanol</i>	(i) ROGERS, Michael <i>Measuring flow and yielding with coherent x-rays</i>	13h45	
		KRASNOPOLSKAIA, Natalia <i>Paperless physics laboratory course using the Blackboard resources.</i>		DRAKE, Gordon <i>Atomic Recoil Processes following He-6 Beta Decay</i>		14h00	
(i) MITARAI, Osamu <i>Impacts of STOR tokamaks on fusion research</i>	RIEDEL, Benedikt <i>Long-Term Stability of Backgrounds in the IceCube Neutrino Observatory</i>	ANTIMIROVA, Tetyana <i>Upper Level Undergraduate Physics Laboratories Competencies</i>	URBAN, Radovan <i>Making and using atomically defined nanotips</i>	PREDOI-CROSS, Adriana <i>The spectrum of 15NH3 in the 66-2000 cm-1 region</i>	HOSSEINIZADEH, Ahmad <i>Structure Determination from Single-Particle X-ray Imaging</i>	14h15	
	(G)* NOWICKI, Sarah <i>Direct reconstruction - a new event reconstruction algorithm for the IceCube Neutrino Observatory</i>	WIESER, Michael <i>The University of Calgary Instructor of Record mentorship program: helping graduate students make the transition to becoming effective instructors</i>	DELOS REYES, Ronald <i>Performance Assessment of a Silicon-Based Piezoresistive MEMS Strain Sensor</i>	(G)* SANG-NOURPOUR, Nafiseh <i>Generalized Waveguide Theory including Electromagnetic Duality</i>	(G) SHAYEGAN, Marjan <i>Investigating the correlation between molecular structure and mechanical properties of collagen using optical tweezers</i>	14h30	
(i) XIAO, Chijin <i>Compact Torus Injection for Fuelling</i>	(G)* BRUULSEMA, Colin <i>Long-Term Supernova Monitoring with HALO</i>	BONN, D.A. <i>Making Comparisons - A Strategy for Teaching Scientific Reasoning in a First Year Lab</i>	(i) HO, Sara <i>The Saskatchewan Centre for Cyclotron Sciences: Developing a multi-use cyclotron facility</i>	(G)* QUESADA, Nicolas <i>Observing the effects of Time Ordering in Single Photon Frequency Conversion</i>	LÉGARÉ, François <i>Interferometric second harmonic generation imaging of biological tissues</i>	14h45	
	CLARK, Ken <i>Deep Core and PINGU - Studying Neutrinos in the Ice</i>	BLANCHET, Benoit <i>Off with the training wheels: Student centered approach to lab work.</i>		(G)* DHAND, Ish <i>Accurate and Precise Characterization of Linear Optical Interferometers</i>	Session Ends / Fin de la session	15h00	
Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session		15h15	
Pause santé avec les exposants (CCIS L2 Foyer)							
CCIS 1-430 (Chair: R. Fedosejevs, President, CAP)		François Légaré, EMT-INRS (Récipiendaire de la médaille Herzberg de l'ACP) voir p. 12				W-MEDAL3	15h45
CCIS 1-430 (Chair: R. Fedosejevs, President, CAP)		John F. Martin, IPP / University of Toronto, (Récipiendaire de la médaille pour contributions exceptionnelles à la physique) voir p. 13				W-MEDAL4	16h15
CCIS 1-430		Rapport du président de l'ACP (Chair: R. Fedosejevs, Président, CAP)					16h45
CCIS 1-430		AGA de l'ACP avec élection des membres du c.a. et du conseil consultatif (Chair: R. Fedosejevs, Président, CAP)					17h15
CCIS L1-047 (Chair: K.. Ragan, Past President, CAP)		"Ami(e)s de l'ACP" Dîner-rencontre (session se termine à 21h00)					19h00
CCIS Ground Floor Foyer (east end)		Session d'affiches, avec bière voir p. 46-49 (session se termine à 22h00)					19h00

Thursday, June 18

07h30 - 08h45	CAP Science Policy Committee Breakfast Meeting (Chair: K. Poduska, Director, Science Policy, CAP)			
	CCIS L1-029 (cap. 44)	NINT Taylor Room (cap. 95)	CCIS L1-029 (cap. 44)	CCIS 1-160 (cap. 157)
	R1-1 Optomechanics -- minisymposium I (DCMMP-DAMOPC) / Optomécanique -- minisymposium I (DPMCM-DPAMPC) Chair: Frank Marsiglio, University of Alberta	R1-2 Computational Biophysics (DMBP-DCMMP) / Biophysique numérique (DPMB-DPMCM) Chair: Maikel Rheinstadter, McMaster University	R1-3 Status and Future of Precision Frontier (PPD-DTP-DIMP) / État et avenir de la frontière de précision (PPD-DPT-DPIM) Chair: Bei Cai, Queen's University	R1-4 Energy frontier: Standard Model and Higgs Boson II (PPD) / Frontière d'énergie: modèle standard et boson de Higgs II (PPD) Chair: Manuela Venturi, University of Toronto
08h45	(i) FREEMAN, Mark <i>Magnetic Resonance Spectroscopy with Torsional Optomechanics</i>	(i) KOVALENKO, Andriy <i>Molecular Theory of Solvation Based Multiscale Modeling of Biomolecular Systems and Functions</i>	(i) BHATTACHARYA, Bhuvanajyoti <i>Status and Prospects for Theoretical Studies of B-meson Decays</i>	(i) MARTIN, Travis <i>Before and After - Consequences of the Higgs Discovery</i>
09h00				
09h15	(i) CLERK, Aashish <i>Quantum Reservoir Engineering in Optomechanical Systems</i>	(i) RHEINSTADTER, Maikel <i>Frontiers in Membrane Biophysics</i>	AHMADY, Mohammad <i>The forward-backward asymmetry in $B \rightarrow K^* \mu^+ \mu^-$</i>	(i) POLIFKA, Richard <i>Search for new SM Higgs decays and production mechanisms, and BSM Higgs production</i>
09h30			SANDAPEN, Ruben <i>Isospin asymmetry in $B \rightarrow K^* \mu^+ \mu^-$ using AdS/QCD</i>	
09h45	(i) BARCLAY, Paul <i>Nanophotonic Optomechanics in Diamond</i>	(G)* JOHANNES, Jonathan <i>Bridging the gap between theoretical and experimentally inferred reorganization energy</i>	(i) RONEY, Michael <i>The Belle II Experiment at the SuperKEKB e⁺e⁻ Collider</i>	REZVANI, Reyhaneh <i>Search for an Invisibly Decaying Higgs Boson Produced via Vector Boson Fusion in pp Collisions at $\sqrt{s}=8$ TeV using the ATLAS Detector at the LHC</i>
10h00		REZANIA, Vahid <i>Oxygen distribution in the liver lobule: Three dimensional computational Models</i>		
10h15	(G)* MITCHELL, Matthew <i>High cooperativity optomechanics with wide-bandgap materials</i>	(G)* GOMES, Gregory <i>Inferring compactness and asphericity of disordered protein ensembles by single molecule FRET spectroscopy and coarse grained simulations</i>	(G)* LONGO, Savino <i>Radiation Hardness of Thallium Doped Cesium Iodide Scintillation Crystals</i>	
10h30	(G)* KUMAR, Sourabh <i>Optomechanical Micro-Macro Entanglement.</i>	(G) MALENFANT, Dylan <i>Effects of Bacterial Specimen Preparation on Laser-Induced Breakdown Spectra</i>	Session Ends / Fin de la session	
10h45	Session Ends / Fin de la session	Session Ends / Fin de la session	Health Break with Exhibitors (CCIS L2 Foyer)	

jeudi 18 juin

CCIS L1-029 (cap. 44)		Petit-déjeuner-rencontre du Comité de la politique scientifique de l'ACP (Chair: K. Poduska, Directrice, Politique scientifique, ACP)		07h30 - 8h45
CCIS L1-047 (cap. 56)	CCIS 1-140 (cap. 157)	CCIS L1-140 (cap. 196)	CCIS L1-160 (cap. 196)	HEURE
R1-5 Quantum Gravity and Quantum Cosmology (DTP) / Gravité quantique et cosmologie quantique (DPT) Chair: Arundhati Dasgupta, University of Lethbridge	R1-6 Testing Fundamental Symmetries II (DTP-PPD-DNP) / Tests de symétries fondamentales II (DPT-PPD-DPN) Chair: David Morrissey, TRIUMF	R1-7 Hadronic Structure (DNP-DTP) / Structure hadronique (DPN-DPT) Chair: Garth Huber, University of Regina	R1-8 Interactive Teaching - Teaching with Technology (DPE) / Enseignement interactif et à l'aide de la technologie (DEP) Chair: Martin Williams, University of Guelph	
(i) GINGRICH, Douglas <i>Low-scale gravity phenomenology</i>	(i) ALEKSEJEVS, Aleksandrs <i>The Hunt for Physics Beyond the Standard Model at the Precision Frontier</i>	(i) PAPANDREOU, Zisis <i>Commissioning of the GlueX Experiment</i>	(i) BEICHNER, Robert <i>Student Centered Active Learning Environment with Upsidedown Pedagogies</i>	08h45
				09h00
(i) STAMP, Philip <i>A Correlated Worldline Theory of Quantum Gravity</i>	(G)* SULLIVAN, Tristan <i>Initial Results from the TRIUMF P1ENU Experiment</i>	(G)* HO, Jason <i>QCD Sum Rule Analysis of Heavy-light Hybrids for $J^P=1^{-}\{-\}$</i>	KALMAN, Calvin <i>Helping Students to get a Better Understanding of Concepts: 'Course Dossier Method'</i>	09h15
	JAMIESON, Blair <i>Simultaneous Spin Measurement for Ultra Cold Neutrons at TRIUMF</i>	(i) STEELE, Tom <i>QCD and the XYZs</i>	(G) SOBHANZADEH, Mandana (Mandy) <i>Utilizing Reflective Writing in Introductory Physics Laboratories: Students Perspectives of Reflective Writing to Explore Science Textbooks</i>	09h30
(G)* DEB, Soumen <i>Discreteness of Space in a Weak Gravitational Field</i>	KATSIKA, Katerina <i>High-voltage breakdown studies with Xe-129 for an nEDM experiment at TRIUMF</i>		MILNER-BOLOTIN, Marina <i>Investigation of PeerWise Technology Implementation to Promote Pedagogical Content Knowledge of Physics Teacher-Candidates: From Theory to Practice</i>	09h45
(U)* ROBBINS, Matthew <i>Modifications of Heisenberg's Uncertainty Principle Motivated by Quantum Gravity</i>	(G) MCCREA, Mark <i>Current Status of a Measurement of Hadronic Parity Violation in the Capture of Cold Neutrons on Helium-3</i>	Session Ends / Fin de la session	AHRENSMEIER, Daria <i>Flipping a graduate level course on Modern Electrodynamics</i>	10h00
ZIPRICK, Jonathan <i>Gravity and dust in 2+1 dimensions</i>	(i) PICKER, Rüdiger <i>Fundamental Physics with Ultra-cold Neutrons Comes to Canada</i>		PANEL DISCUSSION	10h15
(G)* NG, Keith <i>Particle detectors in (curved) space: the equivalence principle and QFT.</i>				10h30
Session Ends / Fin de la session	Session Ends / Fin de la session		Session Ends / Fin de la session	10h45
Pause santé avec les exposants (CCIS L2 Foyer)				

Thursday, June 18 (cont'd)

11h15	CCIS L2-190 (cap. 302) (Chair: R. Fedosejevs, President, CAP)		Pierre Savard, University of Toronto / TRIUMF (CAP-TRIUMF Vogt Medal Recipient) See pg. 13		R-MEDAL	
11h45-12h30	CCIS L2-190 (cap. 302) (Chair: J.-F. Arguin, PPD Chair)		Plenary Session: Francis Halzen, IceCube and Univ. of Wisonsin-Madison IceCube and the Discovery of High-Energy Cosmic Neutrinos - See pg. 13			R-PLEN
11h45-13h45	CCIS 4-285 (cap. 18)		Outreach "Tête-à-Tête" (Chair: M. Pavan, TRIUMF)			
12h30 - 13h45	Annual Meeting for DHP (CCIS L1-029) Annual Meeting for DTP (CCIS L1-047)	Annual Meeting for DIMP / DIAP (CCIS 1-160) Annual Meeting for PPD (CCIS 1-140)	LUNCH			
TIME	CCIS L2-200 (cap. 302)	CCIS L1-140 (cap. 196)	CCIS 1-160 (cap. 157)			
	(R2-1) Optomechanics - minisymposium II (DCMMP-DAMOPC) / Optomécanique - minisymposium II (DPMCM-DPAMPC) Chair: Giovanni Fanchini, University of Western Ontario	(R2-2) Strongly correlated systems (DCMMP) / Systèmes fortement corrélés (DPMCM) Chair: Jinshan Wu, Beijing Normal University	(R2-3) Advanced Instrumentation at Major Science Facilities: Data Acquisition (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: données et applications (DPIM) Chair: Kirk Michaelian, Natural Resources Canada			
13h45	(i) DAVIS, John <i>Optomechanics in a Millikelvin Environment: Towards QND Measurements</i>	(i) WORTIS, Rachel <i>What does localization mean in interacting systems?</i>	(i) ROOT, John <i>Advanced Instrumentation at the Canadian Neutron Beam Centre</i>			
14h00						
14h15	(i) HIEBERT, Wayne <i>Applying nano-optomechanics to mass sensing</i>	(i) TREMBLAY, Andre-Marie <i>An emergent phase transition as an organizing principle for strongly correlated superconductors</i>	Session Ends / <i>Fin de la session</i>			
14h30						
14h45	(i) SANKEY, Jack <i>Optically-Defined Micromechanical Sensors</i>	MARSIGLIO, Frank <i>Dynamic Hubbard model description of superconductivity</i>				
15h00		Session Ends / <i>Fin de la session</i>				
15h15	Session Ends / <i>Fin de la session</i>					
	Health Break (CCIS L2 Foyer)					

jeudi 18 juin (suite)

CCIS L2-190 (cap. 302) (Chair: R. Fedosejevs, President, CAP)		Pierre Savard, University of Toronto / TRIUMF (Récipiendaire de la médaille Vogt de l'ACP-TRIUMF) voir p. 13		R-MEDAL	11h15
CCIS L2-190 (cap. 302) (Chair: J.-F. Arguin, Prés. PPD)		Session plénière - Francis Halzen, IceCube and Univ. of Wisconsin-Madison IceCube et la découverte de neutrinos cosmiques à haute énergie - voir p. 13			R-PLEN 11h45 -12h30
CCIS 4-285 (cap. 18)		"Tête-à-Tête" Liaisons Externes (Chair: M. Pavan, TRIUMF)			11h45 -13h45
Assemblée annuelle DHP (CCIS L1-029)	Assemblée annuelle DPIM / DPIA (CCIS 1-160)	DINER			12h30 -13h45
Assemblée annuelle DPT (CCIS L1-047)	Assemblée annuelle PPD (CCIS 1-140)				
CCIS L1-160 (cap. 196)					HEURE
(R2-4) Curriculum Development and Revitalization (DPE) / Développement et revitalisation des programmes (DEP) Chair: Patricia Mitchler, Balmoral Hall School					
LASRY, Nathaniel Launching the Canadian Institute of Physics Education Research (CIPhER)					13h45
AHRENSMEIER, Daria The design, implementation and continuous improvement of "Introduction to Graduate Studies: Research and Teaching in Physics" at SFU					14h00
LANGILL, Philip The "PHAS Smart Exam" an attempt to improve the examination process of the multi-section intro physics course.					14h15
PANEL DISCUSSION					14h30
					14h45
					15h00
Session Ends / Fin de la session					15h15
Pause santé (CCIS L2 Foyer)					

Thursday, June 18 (cont'd)

jeudi 18 juin (suite)

TIME HEURE	NINT Taylor Room (cap. 95)	CCIS 1-140 (cap. 157)	CCIS 1-160 (cap. 157)
	R3-1 Light-Matter Interactions (DAMOPC-DCMMP) / Interactions entre la lumière et la matière (DPAMPC-DPMCM) Chair: Paul Barclay, University of Calgary	R3-2 Polymers and Biopolymers (DCMMP-DMBP) / Polymères et biopolymères (DPMCM-DPMB) Chair: Melanie Martin, University of Winnipeg	R3-3 Advanced Instrumentation at Major Science Facilities: Data and Applications (DIMP) / Instrumentation avancée dans des installations scientifiques majeures: acquisition de données (DPIM) Chair: Kirk Michaelian, Natural Resources Canada
15h45	(i) BROLO, Alexandre <i>Gold Nanostructures and Their Applications</i>	(i) ROTTLE, Joerg <i>Plasticity in amorphous solids</i>	(i) KIEFFER, Jean-Claude <i>Review of the recent progress at the Advanced Laser Light Source facility and applications</i>
16h00			
16h15	SOURIS, Fabien <i>Superfluid ^4He Helmholtz nanoresonator</i>	(i) LESLIE, Sabrina <i>Getting into that "Room at the Bottom" of DNA Analysis using Tunable Nanoscale Confinement</i>	Session Ends / Fin de la session
16h30	(G) FIRDOUS, Tayyaba <i>Torque Magnetometry of an Individual Aggregate of ~350 Nanoparticles</i>		
16h45	(i) REHSE, Steven <i>Interdisciplinary Applications of Optical Spectroscopy on a Laser-Induced Plasma</i>	KOBRYN, Alexander E. <i>Multiscale modeling of multifunctional, hybrid and nanomaterials: from quantum chemical and microscopic to coarse-grained level with an effective pair potential</i>	
17h00		PODUSKA, Kristin <i>Quantitative metrics for assessing positional and orientational order in colloidal crystals</i>	
17h15	Session Ends / Fin de la session	Session Ends / Fin de la session	
17h15-18h45	CCIS L1-047 CEWIP Annual Meeting & Reception / Assemblée annuelle CEFEP et réception (cap. 56) (Chair: S. Ghose, Wilfrid Laurier University)		
19h00-22h00	Recognition Reception at the Art Gallery of Alberta / Gala reconnaissance à la « Art Gallery of Alberta » with option to access exhibits / avec accès optionnel aux expositions		

Friday, June 19

vendredi 19 juin

TIME HEURE	CCIS 1-140 (cap. 157)	CCIS 1-160 (cap. 157)	NINT Taylor Room (cap. 95)
	(F1-1) Networks and complex systems (DCMMP) / Réseaux et systèmes complexes (DPMCM) Chair: Mona Berciu, University of British Columbia	(F1-2) Experimental Advances and Accelerators (DNP-DIMP-PPD) / Progrès expérimentaux et accélérateurs (DPN-DPIM-PPD) Chair: Zisis Papandreou, University of Regina	(F1-3) Biomedical Optics and Biophotonics (DAMOPC-DIAP-DMBP) / Optique biomédicale et biophotonique (DPAMPC-DPIA-DPMB) Chair: Melanie Campbell, University of Waterloo
08h45	(i) WU, Jinshan <i>Which Subfield of Physics is More Influential?</i>	(i) KOSCIELNIAK, Shane <i>TRIUMF ARIEL Electron Linear Accelerator</i>	(i) HUSSEIN, Esam <i>The Physics of X-ray Tomography: Not as simple as it looks</i>
09h00			
09h15	CHENG, Zhigang <i>Probing helium mass flow through a solid-liquid-solid double Junction</i>	(i) MERMINGA, Lia <i>ARIEL: Driving Scientific Discovery and Innovation with TRIUMF's Advanced Rare Isotope Laboratory</i>	(i) MITTLER, Silvia <i>Evanescent Waveguide Microscopies for Bio-Application</i>
09h30	(i) CHEN, Xiaosong <i>(tba)</i>		
09h45			
10h00	Session Ends / Fin de la session		Session Ends / Fin de la session
10h15			
	CCIS L2-190 (cap. 302) (Chair: R. MacKenzie, V.-P. Elect, CAP)	CAP Best Student Presentations Final Competition / Finale de compétition meilleure communication étudiante de l'ACP (Part 1 - 4 finalists / Première partie – 4 finalistes) All / Tous	
11h15		Health Break (CCIS L2 Foyer)	
11h45	CCIS L2-190 (cap. 302) (Chair: R. MacKenzie, V.-P. Elect, CAP)	CAP Best Student Presentations Final Competition / Finale de compétition meilleure communication étudiante de l'ACP (Part 2 - 4 finalists / Deuxième partie – 4 finalistes) All / Tous	
12h45	CCIS L2-190 (cap. 302) (Chair: M. Rheinstadter, DMBP Chair)	Plenary session / session plénière : David A. Weitz, SEAS Harvard Cell Stiffness and Cell Volume see pg. 13 / <i>La rigidité et le volume des cellules voir p. 13</i> F-PLN2	
13h30	CCIS L2-190 (cap. 302) (Chair: R. MacKenzie, V.-P. Elect, CAP)	Announcement of Winner CAP Best Student Presentation and Close of Congress / L'annonce du gagnant(e) de la compétition meilleure communication étudiante de l'ACP, Clôture du Congrès	
14h00- 15h30	CCIS L1-047 (Chair: A. Sarty, incoming President, CAP)	CAP Board of Directors Meeting (New and Old) / Réunion du c.a. (nouveau et ancien) de l'ACP	
15h30- 17h00	CCIS L1-047 (Chair: A. Sarty, incoming President, CAP)	CAP/LOC co-chairs meeting / Réunion de l'ACP et des co-présidents de COL	

POSTER SESSION – WEDNESDAY, JUNE 17

19h00-22h00

SESSION D’AFFICHES – MERCREDI, 17 JUIN

ROOM / SALLE : CCIS GROUND FLOOR FOYER (EAST END)

**DIVISION OF ATOMIC, MOLECULAR AND OPTICAL PHYSICS, CANADA /
DIVISION DE LA PHYSIQUE ATOMIQUE, MOLÉCULAIRE ET PHOTONIQUE, CANADA (DAMOPC-DPAMPC)**

POS-1	Two-dimensional accelerating beams along arbitrary trajectories and enhancement of their peak intensities BONGIOVANNI, Domenico	G*
POS-2	Development of a High Intensity Yb:YAG Pumped Optical Parametric Chirped Pulse Amplification Laser System ELTAHLAWY, Mohammed	G*
POS-3	Using radio frequency radiation to discover new effects in ultracold gases HRUSHEVSKYI, Taras	G*
POS-4	Proposal of creating spin cat states in Bose-Einstein condensates LAU, Hon Wai	G*
POS-5	Pulsed Laser Spectroscopy of Xe129 for a Co-magnetometer in the TRIUMF Neutron Electron Dipole Moment Experiment MILLER, Eric R	G*
POS-6	Numerical Analysis of Er-doped DFB Fiber Laser: Er ion Concentration and Output Power Optimization NOROOZ OLIAEE, Jalal	
POS-7	Recent Line-Shape Studies Involving Transitions of Acetylene Broadened by Carbon Dioxide PREDOI-CROSS, Adriana	
POS-8	Particle vs. Mode Entanglement in Quantum Enhanced Optical Metrology QUESADA, Nicolas	G*
POS-9	Ultracold gas coupled to a nanomechanical resonator via Zeeman interaction TRETIAKOV, Andrei	G*
POS-10	Detection of Trace Gases using Fiber Laser Technology- Part 2 VALIUNAS, Jonas	G
POS-11	Application Of An Optical Parametric Oscillator For Infrared Spectroscopy Of Jet-Cooled Molecules And Complexes WELBANKS CAMARENA, Luis Carlos	U*

**ATMOSPHERIC AND SPACE PHYSICS /
PHYSIQUE ATMOSPHÉRIQUE ET DE L'ESPACE (DASP-DPAE)**

POS-12	Possibility of determining predominant SO2 oxidation pathways by isotope fractionation or source apportionment AMIRI, Neda	G
POS-13	Early results from the ABOVE radio instrument array CULLY, Christopher	
POS-14	Ionospheric Sounding Opportunities Using Signal Data From Pre-existing Amateur Radio And Operational Networks CUSHLEY, Alex	G*
POS-15	A Case Study of Energetic Electron Precipitation Using Ground-Based VLF Radio Data DAVIS, Eric	G
POS-16	Comparison of IGS Network GPS Receiver DCBs Provided by CODE and a Single Station Estimation Method MCCAFFREY, Anthony	G

POS-17	Characterization of Ionospheric Scintillation at High Latitude MEZAOUI, Hichem	G*
POS-18	Determining the equatorial dayside plasma density using travel-time magnetoseismology RIDGWAY, Robert	U*
POS-19	Pre-stellar Cores in the Aquila Rift SCOTT, Jeremy	U*
POS-20	Changes in Global Precipitation from 1850 to the Present SYED, Atifa	U
POS-21	Distribution of Gravity Wave Parameters over Eureka, Nunavut using the All Sky Imager VAIL, Chris	G
POS-22	Motion of the Polar Cap Arcs and Associated Plasma Flows YAKYMENKO, Kateryna	G*
POS-23	A Statistical Study of Drifts of Patchy Pulsating Aurora : Observed by THEMIS All-Sky Imagers YANG, Bing	G

CONDENSED MATTER AND MATERIALS PHYSICS /
PHYSIQUE DE LA MATIÈRE CONDENSÉE ET MATÉRIAUX (DCMMP-DPMCM)

POS-24	Dielectric spectroscopy of polyvinyl alcohol cryogels DE BRUYN, John	
POS-25	Optomechanics with a Twist KIM, Paul	G*
POS-26	Ultrafast All-Optical Switching in Semiconductor Nanoparticles KRUPA, Jeff	U*
POS-27	Adsorption of thiophene-based molecules at passivated silicon surfaces LIU, Renjie	G*
POS-28	Coupling THz Pulses to a Scanning Tunneling Microscope NGUYEN, Peter	G*
POS-29	Granular assemblies: a sandbox of nonlinear physics phenomena(G)* PRZEDBORSKI, Michelle	G*
POS-30	Modeling dome microcavities in COMSOL(G)* RAMP, Hugh	G*
POS-31	Poor Q-factor? - no problem: nano-optomechanical mass sensing in ambient conditions(G)* ROY, S. K.	G*
POS-32	Deuterium NMR and Rheology of Microgel Colloids at Ambient and High Pressure(G)* SBEIH, Suhad	G*
POS-33	Thermophysical Properties of Heavy Water and Pertinent Calculations VARTY, Robert L.	
POS-34	GC-MS to GC-NOMS: A step towards portable analysis VENKATASUBRAMANIAN, Anandram	
POS-35	Photonic actuation and detection of higher order modes in nanomechanical resonators WESTWOOD-BACHMAN, J. N.	G*

INDUSTRIAL AND APPLIED PHYSICS /
PHYSIQUE APPLIQUÉE ET INDUSTRIELLE (DIAP-DPIA)

POS-36	Water and Defect Detection Beneath Rubber Using Terahertz Reflection Tomography KILCULLEN, Patrick	G*
--------	---	----

INSTRUMENTATION AND MEASUREMENT PHYSICS /
PHYSIQUE DES INSTRUMENTS ET MESURES (DIMP-DPIM)

POS-37	Improving sensitivities and detection limits of fluorescence-based microcavity refractometric sensors CHUNG, Rose (Deborah)	G*
POS-38	Development of a Vibrating Wire Rheometer DE BRUYN, John	
POS-39	The Brockhouse X-ray Diffraction and Scattering Sector at the Canadian Light Source GOMEZ, Ariel	
POS-40	Focus study to measure phase effects of a bent Laue beam expander MARTINSON, Mercedes	G*
POS-41	Update of the imaging capabilities of the biomedical imaging and therapy facility at the Canadian Light Source WEBB, M. Adam	

MEDICAL AND AND BIOLOGICAL PHYSICS /
PHYSIQUE MÉDICALE ET BIOLOGIQUE (DMBP-DPMB)

POS-42	Single-Molecule Microscopy System for Tunable Nanoscale Confinement ARSENAULT, Adriel	G
POS-43	Massively parallel genomic analysis using tunable nanoscale confinement(G) SHAYEGAN, Marjan	G

NUCLEAR PHYSICS /
PHYSIQUE NUCLÉAIRE (DNP-DPN)

POS-44	Evolution of Single Particle Structure in Exotic Strontium Isotopes CRUZ, Steffen	G*
POS-45	Low-Light Photosensor Applications in Plant Imaging & Personal Radiation Detection SANCHEZ-FORTUN STOKER, Jamic	G

PLASMA PHYSICS /
PHYSIQUE DES PLASMAS (DPP)

POS-46	Characterization of Initial Target Conditions in High Intensity Laser Solids Interaction Experiments CHEN, Zhijiang	
POS-47	Terahertz source development for studying Warm Dense Matter and High Energy Density Plasmas CURRY, Chandra	G
POS-48	Intense, double pulse irradiation of targets for MeV proton acceleration KERR, Shaun	G*
POS-49	Measurement of High Magnetic Fields in Laser Produced Plasmas LIZA, Fatema	G*
POS-50	Interferometric characterization of preplasma density for laser created plasmas MANZOOR, Laila Nawsheen	G*

POS-51	Optical Pumping Within a Laser-Induced Plasma to Enhance Trace Element Signal Intensity PIAZZA, Anthony	U
--------	--	---

THEORETICAL PHYSICS / PHYSIQUE THÉORIQUE (DTP-DPT)

POS-52	Algorithms for Boson Realizations of $SU(n)$ DHAND, Ish	G*
POS-53	Bohmian trajectories for harmonic oscillator and Coulomb potentials DUPUIS, Benjamin	G*
POS-54	Quantum corrected numerical relativity DUTTA, Anindita	G*
POS-55	Unified Theory of Forces MOZAFARI, Kaveh	
POS-56	Tunneling decay of false kinks UNG, Yvan	G*
POS-57	Electric quantum walks without electric field: an optical implementation scheme(G)* ZHANG, Wei-Wei	G*

PARTICLE PHYSICS / PHYSIQUE DES PARTICULES (PPD)

POS-58	In-situ Surface Contamination Removal With the DEAP-3600 Resurfacing Robot CAI, Bei	
POS-59	Skyrmion configurations for Near-BPS Skyrme Models(G) GIASSON, Nicolas	G
POS-60	Simulation study of the use of internal Ar-39 beta decays for energy calibration of the DEAP-3600 detector. JILLINGS, Chris	
POS-61	Study of neck alpha backgrounds in the DEAP-3600 dark matter detector MIELNICHUK, Courtney	G*
POS-62	The DEAP-3600 Dark Matter detector POLLMANN, Tina, GIAMPA, Pietro	
POS-63	Calibration of the DEAP-3600 photomultiplier tubes POLLMANN, Tina, KUZNIAK, Marcin	

Presenter Index / Index des conférenciers

- A -

ABDEL SAMAD, Bassel (Moncton University) T1-9
ACHAL, Roshan (University of Alberta) M1-2
AHEKSEJEVS, Aleksandrs (MUN) R1-3
AHMADY, Mohammad (Mount Allison University) R1-8, R2-4, W1-8
AHRENSMEIER, Daria (Simon Fraser University)
ALBACH, Gary (Former President and CEO, Alberta Innovates – Technology Futures) T-Career
ALCUBIERRE, Miguel (National Univ. of Mexico) M-HERZ
ALEKSEJEVS, Aleksandrs (MUN) R1-6
ALMUDALLAL, Ahmad (MUN) M2-1, T2-2
AMIRI, Neda (University of Calgary) W-POS
ANTIMIROVA, Tetyana (Ryerson University) W2-8
ARCHER, William (University of Calgary) W2-8
ARSENAULT, Adriel (McGill University) W-POS

- B -

BAHRAMI YEKTA, Vahid (University of Victoria) M2-2
BAI, Lihui (University of Manitoba) W2-1
BALE, Jeff (TRIUMF) T3-8
BARCLAY, Paul (University of Calgary) R1-1
BARRETTE, Jean (McGill University) T3-8
BAUGH, Jonathan (University of Waterloo) W2-2
BEAUDOIN BERTRAND, Julien (Université Laval) M1-9
BEHBAHANI, R. A. (University of Saskatchewan) T3-10
BEICHNER, Robert (North Carolina State University) R1-8
BELANGER, Randy (McMaster University) T1-9
BELTRAN, Berta (University of Alberta) T2-8
BENDER, Peter (TRIUMF) T2-5
BERNIER, Nikita (TRIUMF) T3-6
BHATTACHARYA, Bhuvanjiyoti (Université de Montréal) R1-3
BILENKY, Samoil (JINR (Dubna)) M1-6
BISSON, Jean-François (Université de Moncton) M2-2
BISWAS, Tushar (University of Alberta) W2-1
BLANCHET, Benoit (Cégep de Rivière-du-Loup) W2-8
BONGIOVANNI, Domenico (INRS) W-POS
BONN, D.A. (University of British Columbia) T1-1, W2-8
BOOTH, James (BC Institute of Technology) T1-2
BOSTON, Elizabeth (NSERC) T-PLEN1
BOWMAN, John (University of Alberta) T3-10
BRADLEY, Michael (University of Saskatchewan) T1-8
BROLO, Alexandre (University of Victoria) R3-1
BROWN, David (Simon Fraser University) T3-1
BROWN, Jo-Anne (University of Calgary) M2-8
BRUULSEMA, Colin (Laurentian University) W2-7
BUENO, James (University of Alberta) T3-4
BURCHILL, Johnathan (University of Calgary) W1-3
BURKE, Sarah (University of British Columbia) M1-2

- C -

CAI, Bei (Queen's University) M2-7, W-POS
CAMERON, Taylor (University of Calgary) T3-3
CAMPBELL, Melanie (University of Waterloo) T1-11
CAMPBELL, Sheldon (The Ohio State University) M2-4
CAO, ChunJun (Caltech) T2-4
CHANDLER, Carl (University of Alberta) T1-1
CHAPMAN, Dean (Canadian Light Source Inc.) M2-9
CHAU, Chav Chhiv (University of Toronto) M1-8
CHEN, Xiaosong (Institute of Theoretical Physics, China Academy of Science) F1-1
CHEN, Zhijiang (SLAC National Accelerator Laboratory) F1-1
CHENG, Zhigang (University of Alberta) W-POS
CHESTER, Aaron (Simon Fraser University) T2-5
CHEVRIER, David (Canadian Light Source) M2-9
CHUNG, Rose (Deborah) (University of Alberta) W-POS
CLARK, Ken (University of Toronto) W2-7
CLERK, Aashish (McGill University) R1-1
COGGER, Leroy (University of Calgary) T2-3
COISH, Bill (McGill University) T3-2
COOKE, David (McGill University) T1-10
COWNDEN, Bradley (University of Manitoba) W1-4
CRANMER-SARGISON, Gavin (Saskatchewan Cancer Agency) M2-6
CRANSHAW, Derek (Queen's University) T3-4
CRUJE, Charmainne (Ryerson University) M2-6
CRUZ, Steffen (University of British Columbia) W-POS

CUI, Yanou (Perimeter Institute) M2-7
CULLY, Christopher (University of Calgary) W-POS
CURRY, Chandra (University of Alberta) W-POS
CUSHLEY, Alex (Royal Military College of Canada) T1-3, W-POS

- D -

DALLAIRE, Frederick (Université de Montréal) T1-5
DAS, Gautam (Lakehead University) F1-3
DAUPHINEE, Tyler (University of Alberta) M2-8
DAVIDS, Barry (TRIUMF) T2-5
DAVIS, Eric (University of Calgary) W-POS
DAVIS, John (University of Alberta) R2-1
DAVIS, William (University of Saskatchewan) M2-6
DAY, James (University of British Columbia) T2-9
DE BRUYN, John (The University of Western Ontario) W-POS
DE JONG, Mark (Canadian Light Source Inc.) T2-6
DE LOS REYES, Glenda (University of Alberta) M1-9
DEB, Soumen (University of Lethbridge) R1-5
DELOS REYES, Ronald (University of Alberta) W2-9
DESHMUKH, Chetan (University of Calgary) T3-2
DHAND, Ish (University of Calgary) W2-10, W-POS

DIAZ BENITO, Pablo (University of Lethbridge) T1-4
DICK, Rainer (University of Saskatchewan) M1-4
DIGNAM, Marc (Queen's University) W1-1
DILORETO, Christopher (University of Windsor) W1-10
DING, Weixing (UCLA) T1-8
DONEV, Jason (University of Calgary) M2-8
DOOLIN, Callum (University of Alberta) W1-6
DORAN, Charles (University of Alberta) T1-4
DRAKE, Gordon (University of Windsor) W2-10
DUNLOP, Michelle (University of Guelph) T3-6
DUNLOP, Ryan (University of Guelph) T3-6
DUPUIS, Benjamin (UQTR) W-POS
DUROCHER-JEAN, Antoine (Université de Montréal) T2-11
DUTTA, Anindita (University of Lethbridge) W-POS

- E -

EDERY, Ariel (Bishop's) W1-4
ELHAMI, Esmat (University of Winnipeg) T1-11
ELTAHLAWY, Mohammed (University of Alberta) W-POS
EVITTS, Lee J. (TRIUMF) T1-7
EZUGWU, Sabastine (The University of Western Ontario) W1-6

- F -

FALLONE, B. Gino (University of Alberta) M2-6
FANCHINI, Giovanni (The University of Western Ontario) W1-1
FANI SANI, Fatemeh (University of Alberta) W2-1
FERNANDES, Dennis D. (University of Toronto) W1-2
FERNANDES, Donald A. (Ryerson University) M2-6
FIRDOUS, Tayyaba (University of Alberta) R3-1
FLEMING, Sean W. (Environment Canada, MSC Science Division) M2-3
FORTIN, Jean-Francois (Laval University) T2-4
FREEMAN, Mark (University of Alberta) R1-1
FREY, Andrew (University of Winnipeg) T2-4
FUJIWARA, Makoto (TRIUMF) W2-4

- G -

GALE, Charles (McGill University) W-MEDAL2
GARCIA, Fatima (Simon Fraser University and TRIUMF) T2-6
GAVRILOV, Dmitry (University of Windsor) W2-9
GECSE, Zoltan (University of British Columbia) T1-5
GERBIER, Gilles (Queens University) T3-4
GERICKE, Michael (University of Manitoba) W2-4
GHARAEI, Hossna (University of Alberta) M1-3
GHARAVI, Kaveh (University of Waterloo) M1-1
GHOSE, Shohini (Wilfrid Laurier University) T2-9, T3-2
GHOSH, Joydip (University of Calgary) T1-2
GIAMPA, Pietro (Queen's University) W-POS
GIASSON, Nicolas (Université Laval) W-POS
GINGRICH, Douglas (University of Alberta) R1-5
GIRARDIN, Robert (Lakehead University) T3-9
GIROUX, Guillaume (Queen's University) T2-8
GOENNENWEIN, Sebastian (Walther-Meissner-Institut, Bayerische Akademie der Wissenschaften) W2-1

GOMES, Gregory (University of Toronto)	R1-2	KUŹNIAK, Marcin (Queen's University)	W-POS
GOMEZ, Ariel (Canadian Light Source)	W-POS	KWIATKOWSKI, Anna (TRIUMF)	T1-7
GRAHAM, Kevin (Carleton University)	W1-7		
GRANDMONT, Dylan (University of Alberta)	W2-1	- L -	
GREEN, Daniel (CITA)	M2-4	LANDRY, Gaëtan (Dalhousie University)	M1-7
GREGOIRE, Thomas (Carleton University)	T1-5	LANDRY, Michael (LIGO Hanford Observatory/Caltech)	W2-3
- H -		LANE, Stephen (University of Alberta)	T3-1
HALJAN, Paul C (Simon Fraser University)	T1-2	LANGILL, Philip (University of Calgary)	R2-4
HALLIN, Aksel (University of Alberta)	M1-6	LANGILLE, Jeffery (University of New Brunswick)	W2-5
HALZEN, Francis (University of Wisconsin)	R-PLEN	LASRY, Nathaniel (John Abbott College)	R2-4
HANNA, David (McGill University)	T1-6	LAU, Hon Wai (IQST, University of Calgary)	W-POS
HASTINGS, Nicholas (University of Regina)	T3-5	LAWSON, Ian (SNOLAB)	W1-9
HAUER, Bradley (University of Alberta)	W1-6	LEAHY, Denis (University of Calgary)	M1-4
HAXTON, Wick (University of Washington / University of California)	W-PLEN	LEBLANC, Lindsay (University of Alberta)	T2-10
HERBUT, Igor (Simon Fraser University)	M1-1	LEES, Ronald (University of New Brunswick)	M2-10
HERWIG, Falk (University of Victoria)	M2-5	LEFEBVRE, Benoit (McGill University)	W1-5
HEYL, Jeremy (University of British Columbia)	M1-4	LEFEBVRE, Pascal (University of Calgary)	T1-10
HIEBERT, Wayne (National Institute for Nanotechnology)	R2-1	LEGARE, Francois (INRS-EMT)	W2-11, W-MEDAL3
HO, Jason (University of Saskatchewan)	R1-7		
HO, Sara (Saskatchewan Centre for Cyclotron Sciences)	W2-9	LEIGHT, William Axel (Carleton University)	W1-5
HOCKING, Wayne (University of Western Ontario)	W2-5	LESLIE, Sabrina (McGill University)	R3-2
HODAPP, Theodore (American Physical Society)	W1-8	LEVESQUE, Guy (Canada Foundation for Innovation)	M-CFI
HOSSEINIZADEH, Ahmad (University of Wisconsin)	W2-11	LEWANDOWSKI, Heather (University of Colorado)	T2-9
HRUSHEVSKYI, Taras (University of Alberta)	W-POS	LINHANANTA, Apichart (Lakehead University)	T3-9
HSU, Ted (MP, Kingston and the Islands)	T-SciPol, T-Career	LISTER, Alison (University of British Columbia)	M1-8
	M2-2	LIU, Renjie (Lakehead University)	W-POS
HUFF, Taleana (University of Alberta)	F1-3	LIZA, Fatema (University of Alberta)	W-POS
HUSSEIN, Esam (University of Regina)	M1-1, T2-4	LONGO, Savino (University of Victoria)	R1-3
HUTCHINSON, Joel (University of Alberta)			
- I -		- M -	
ISHIHARA, Osamu (Chubu University/Yokohama National University)	T3-10	MACDONALD, Allison (University of Alberta)	W1-6
- J -		MACDONALD, Andrew (University of British Columbia)	M1-2
JAMES, Gordon (University of Calgary)	T2-3	MACFARLANE, Sharon (TEC, Edmonton)	T-Career
JAMIESON, Blair (University of Winnipeg)	R1-6	MACIEJKO, Joseph (University of Alberta)	M1-1
JAYACHANDRAN, Thayyil (Univ. of New Brunswick)	T3-3	MACLEAN, Andrew (University of Guelph)	T3-6
JELIC, Vedran (University of Alberta)	T2-1	MALAC, Marek (University of Alberta and NINT)	T2-1
JIANG, Bin (National Research Council)	T2-10	MALENFANT, Dylan (University of Windsor)	R1-2
JILLINGS, Chris (SNOLAB)	W1-9, W-POS	MANZOOR, Laila Nawsheen (University of Alberta)	W-POS
JOHANNES, Jonathan (University of Calgary)	R1-2	MARCHAND, Richard (University of Alberta)	W1-3
JOHN, Caleb (University of Calgary)	T1-10	MARSHALL, Glen (TRIUMF)	W2-4
JULIAN, Stephen (University of Toronto)	T1-1	MARSIGLIO, Frank (University of Alberta)	R2-2
- K -		MARTIN, John (Department of Physics and Astronomy)	W-MEDAL4
KABIN, Konstantin (RMC)	M1-3	MARTIN, Melanie (University of Manitoba)	T1-11
KALMAN, Calvin (Concordia University)	R1-8	MARTIN, Travis (TRIUMF)	R1-4
KARLEN, Dean (University of Victoria)	W1-5	MARTINSON, Mercedes (University of Saskatchewan)	W-POS
KASTYAK-IBRAHIM, Marzena (University of Manitoba)	W2-8	MAYER, Adam (University of Calgary)	M1-6
KATSIKA, Katerina (TRIUMF)	R1-6	MCCAFFREY, Anthony (University of New Brunswick)	W-POS
KENNETT, Malcolm (Simon Fraser University)	W1-1	MCCREA, Mark (University of Manitoba)	R1-6
KERR, Shaun (University of Alberta)	W-POS	MCELROY, Thomas (University of Alberta)	T2-8
KHAGHANI, Pouya (Laurentian U. / SNOLAB)	W1-7	MERMINGA, Lia (TRIUMF)	F1-2
KHAN, Mohammad Zahidul Hossain (MUN)	W1-1	MEYER, Ralf (Laurentian University)	T2-2
KIEFFER, Jean-Claude (EMT-INRS)	R3-3	MEZAOU, Hichem (University of New Brunswick)	W-POS
KILCULLEN, Patrick (Univ. of Northern British Columbia)	W-POS	MIELNICHUK, Courtney (University of Alberta)	W-POS
KIM, Paul (University of Alberta)	W-POS	MIKULA, Paul (University of Manitoba)	T1-4
KOBYRN, Alexander E. (NINT)	R3-2	MILLER, Eric R (The University of British Columbia)	W-POS
KONAKA, Akira (TRIUMF)	T3-5	MILNER, Valery (University of British Columbia)	M1-9
KOPPER, Claudio (University of Alberta)	W2-7	MILNER-BOLOTIN, Marina (Univ. of British Columbia)	R1-8
KOSCIELNIAK, Shane (TRIUMF)	F1-2	MIRANDA, Chris (MUN)	W1-2
KOUSTOV, Alexandre (University of Saskatchewan)	T2-3	MITARAI, Osamu (Tokai University)	W2-6
KOUZNETSOV, Alexei (University of Calgary)	M1-3, T1-3	MITCHELL, Matthew (University of Calgary)	R1-1
KOVALENKO, Andriy (University of Alberta)	R1-2	MITRA, Pitam (University of Alberta)	M2-7
KRASNOPOLSKAJA, Natalia (University of Toronto)	W2-8	MITTLER, Silvia (University of Western Ontario)	W1-2, F1-3
KRISTOFFERSEN, Samuel (Univ. of New Brunswick)	W2-5	MIVEHVAR, Farokh (University of Calgary)	W1-10
KRUECKEN, Reiner (TRIUMF)	M-TRIUMF, T3-8	MO, Mianzhen (University of Alberta)	T2-11
	W-POS	MORRIS, Denis (Université de Sherbrooke)	T1-10
KRUPA, Jeff (University of British Columbia)	W1-4	MORRISSEY, David (TRIUMF)	T1-5
KUBIZNAK, David (Perimeter Institute)	W1-4	MOZAFARI, Kaveh (ExcellenSation)	W-POS
KUMAR, Prayush (Canadian Institute for Theoretical Astrophysics)	W1-4	MUN, Eundeok (Simon Fraser University)	M2-2
KUMAR, Sourabh (University of Calgary)	R1-1		
		- N -	
		NAVRATIL, Petr (TRIUMF)	M1-7
		NG, Keith (University of Waterloo)	R1-5
		NGUYEN, Peter (University of Alberta)	W-POS
		NIELSEN, Christine (University of British Columbia)	T3-5
		NIKOLIC, Ljubomir (Natural Resources Canada)	M2-3
		NOROOZ OLIAEE, Jalal (University of Calgary)	W-POS

NOWICKI, Sarah (University of Alberta)	W2-7	SARKISSIAN, Andranik (PLASMIONIQUE Inc.)	W1-3
- O -		SAVARD, Pierre (University of Toronto)	R-MEDAL
OBIED, Laila (Brock University)	M2-2	SBEIH, Suhad (Memorial University of Newfoundland)	W-POS
O'DELL, Duncan (McMaster University)	T1-2	SCHAEFFER, Paul (TRIUMF)	T2-6
OLAIZOLA MAMPASO, Bruno (University of Guelph)	T1-7	SCOTT, Douglas (University of British Columbia)	T1-6
OUYED, Rachid (University of Calgary)	M2-5	SCOTT, Jeremy (Student at the University of Lethbridge)	T1-3, W-POS
OZEKE, Louis (University of Alberta)	M1-3	SEAGER, Sara (Massachusetts Institute of Technology)	M-PLN, T1-3
- P -		SEIFY, Lohrasp (University of Calgary)	T2-10
PADILLA, Ivan (University of Toronto)	M2-4	SEMENTOV, Andrei (University of Regina)	M1-5
PAGE, John (University of Manitoba)	W-MEDAL 1	SHAKER, Fady (University of Winnipeg)	T3-5
PALACINO CAVIEDES, Gabriel David (York University)	T2-7	SHARUM, Haille (University of Alberta)	M1-9
PALMER, Kameron (University of Alberta)	M2-1	SHAYEGAN, Marjan (Postdoctoral Researcher)	W2-11, W-POS
PAPANDREOU, Zisis (University of Regina)	R1-7	SHEN, Yangyang (University of Calgary)	T3-3
PARK, Jason (University of British Columbia/TRIUMF)	T2-5	SIBLEY, Logan (University of Alberta)	W1-7
PATRICK, Matthew (University of Calgary)	T3-3	SINGH, Kalpana Singh (University of Alberta)	M1-6
PECK, Ryan (University of Windsor)	M2-10	SIRKER, Jesko (University of Manitoba)	T2-2
PIAZZA, Anthony (University of Windsor)	W-POS	SIVAK, David (Simon Fraser University)	W1-2
PICKER, Rüdiger (TRIUMF)	R1-6	SMITH, Ben (TRIUMF)	T2-8
PINFOLD, James (University of Alberta)	T2-7	SMITH, Jenna (TRIUMF)	T3-6
PISANA, Simone (York University)	T3-1	SMITH, Kendrick (Perimeter Institute for Theoretical Physics)	T1-6
PLAMONDON, Réjean (École Polytech. de Montréal)	W1-4	SMITH, Nigel (SNOLAB)	M-SNOLAB, W1-9
PODUSKA, Kristin (MUN)	T1-9, R3-2	SMOLYAKOV, Andrei (University of Saskatchewan)	T3-10
POLACHIC, Christopher (University of Alberta)	M2-1	SOBHANZADEH, Mandana (Mount Royal University)	R1-8
POLIFKA, Richard (University of Toronto)	R1-4	SOURIS, Fabien (University of Alberta)	R3-1
POLLMANN, Tina (Laurentian University)	W-POS	STAFFORD, Luc (Université de Montréal)	T2-11
PORE, Jennifer (Simon Fraser University)	T3-6	STAIRS, Ingrid (University of British Columbia)	W2-3
PREDOI-CROSS, Adriana (University of Lethbridge)	M2-10, T1-3	STAMP, Philip (University of British Columbia)	R1-5
PRZEDBORSKI, Michelle (Brock University)	W2-10, W-POS	STEELE, Tom (University of Saskatchewan)	R1-7
PUGH, Christopher (University of Waterloo)	W-POS	STRONG, Kimberly (University of Toronto)	W2-5
PURSCHKE, David (University of Alberta)	T3-2	SULLIVAN, Tristan (University of British Columbia)	R1-6
- Q -		SVENNE, Juris P. (University of Manitoba)	M1-7
QUESADA, Nicolas (University of Toronto)	W2-10, W-POS	SYDORENKO, Dmytro (University of Alberta)	M2-3
- R -		SYED, Atifa (York University)	W-POS
RADICH, Allison (University of Guelph)	T2-5	- T -	
RAMAN, Roger (University of Washington)	W2-6	TANAKA, Kaori (University of Saskatchewan)	T1-1
RAMP, Hugh (University of Alberta)	W-POS	TANG, Jennifer (McMaster University)	T3-9
RAND, Evan (University of Guelph)	W2-4	TAYLOR, Wendy (York University)	T2-7
RANGAN, Chitra (University of Windsor)	T-MEDAL	TCHIR, Zachary (University of Alberta)	W1-3
RAPPOPORT, Tatiana (Federal Univ. of Rio de Janeiro)	M2-1	THEMENS, David (University of New Brunswick)	T2-3
RAUSSENDORF, Robert (Univ. of British Columbia)	W2-2	THOMPSON, Robert (University of Calgary)	T2-10
REHSE, Steven (University of Windsor)	R3-1	TREMBLAY, André-Marie (Université de Sherbrooke)	R2-2
RESCH, Kevin (University of Waterloo)	W1-10	TRETIKOV, Andrei (University of Alberta)	W-POS
RETIERE, Fabrice (TRIUMF)	T3-8	TSUI, Ying (University of Alberta)	T2-11
RETTIE, Sebastien (University of British Columbia)	W1-5	TURCOTTE, Raphael (Harvard Medical School, MA)	W1-2
REZANIA, Vahid (MacEwan University)	R1-2	- U -	
REZVANI, Reyhaneh (Université de Montréal)	R1-4	UNDERWOOD, Ryan (Queens University)	T3-4
RHEINSTADTER, Maikel (McMaster University)	R1-2	UNG, Yvan (University of Montreal)	W-POS
RIBERDY, Viora (University of Windsor)	M1-5	URBAN, Radovan (University of Alberta)	W2-9
RIDGWAY, Robert (University of Calgary)	W-POS	- V -	
RIEDEL, Benedikt (University of Alberta)	W2-7	VAIL, Chris (University of New Brunswick)	W-POS
ROBBINS, Matthew (University of Lethbridge)	R1-5	VALIUNAS, Jonas (Lakehead University)	W-POS
ROBERT, Pavelich (University of Alberta)	M2-1	VAN WIJNGAARDEN, William (York University)	M2-10
ROGACHEV, Grigory (Texas A&M University)	T1-7	VARTY, Robert L. (Consultant in Engineering Science)	W-POS
ROGERS, Michael (University of Ottawa)	W2-11	VASUDEV, Pranai (University of Toronto)	T2-2
RONEY, Michael (University of Victoria)	R1-3	VENKATASUBRAMANIAN, Anandram (NINT, University of Alberta)	W-POS
ROOT, John (Canadian Neutron Beam Centre)	M1-5, T-SciPol, R2-3	VENTURI, Manuela (University of Victoria)	M1-8
ROTTLER, Joerg (University of British Columbia)	R3-2	- W -	
ROY, S. K. (University of Alberta and NINT)	W-POS	WANG, Chengrui (University of Alberta)	M1-3
- S -		WEBB, M. Adam (Canadian Light Source)	W-POS
SAGE, Fred (University of Saskatchewan)	M2-7	WEITZ, David A. (SEAS Harvard)	F-PLN2
SALLABI, Abdulwahab (Misurata University)	T1-9	WELBANKS CAMARENA, Luis Carlos (U. of Calgary)	W-POS
SAMADI, Nazanin (University of Saskatchewan)	M2-9	WELBANKS, Luis (University of Calgary)	M2-5
SANCHEZ-FORTUN STOKER, Jamie (Univ. of Regina)	T2-6, W-POS	WESTERHOFF, Stefan (Univ. of Wisconsin-Madison)	M-SAP
SANDAPEN, Ruben (Mount Allison U. & U. de Moncton)	R1-3	WESTWOOD-BACHMAN, J. N. (University of Alberta and NINT)	W-POS
SANDERS, Barry (University of Calgary)	W1-10	WHELAN, Bill (University of Prince Edward Island)	T1-11, T-PLN3
SANG-NOURPOUR, Nafiseh (U. of Calgary, U. of Tabriz)	W2-10	WIESER, Michael (University of Calgary)	W2-8
SANKEY, Jack (McGill University)	R2-1		

WILLIAMS, Jonathan (Simon Fraser University)	M1-5
WILMAN, Alan (University of Alberta)	T1-11
WOLKOW, Robert (University of Alberta)	M1-2
WOOD, Tania (University of Alberta)	T3-5
WOODSIDE, Michael (University of Alberta)	T3-9
WORTIS, Rachel (Trent University)	R2-2
WU, Jinshan (Beijing Normal University)	F1-1
WURTZ, Ward (Canadian Light Source Inc.)	M2-9

- X -

XIAO, Chijin (University of Saskatchewan)	W2-6
XIAO, John Q (University of Delaware)	W1-6
XU, Ben (Memorial University)	T2-1
XU, Li-Hong (University of New Brunswick)	T-PLEN2, W2-10

- Y -

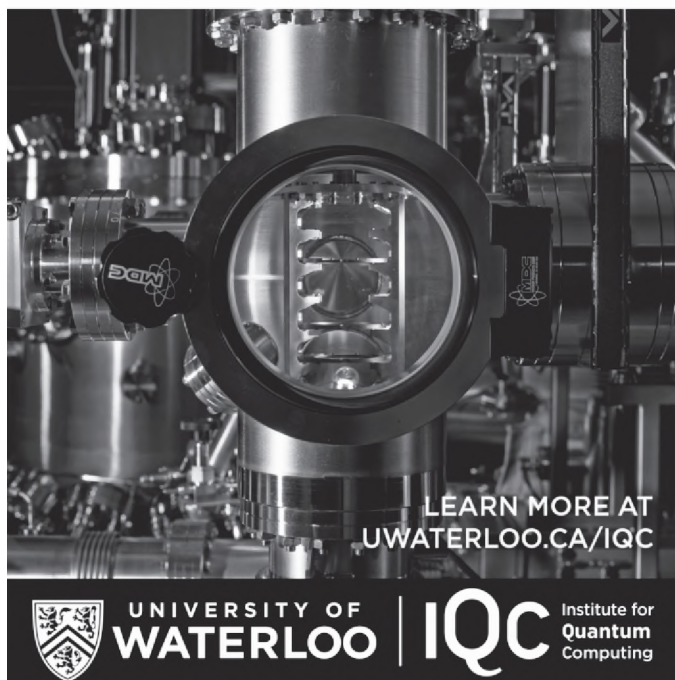
YAKYMENKO, Kateryna (student)	W-POS
YANG, Bing (University of Calgary)	W-POS
YAU, Andrew (University of Calgary)	W2-11
YEATS, Karen (Simon Fraser University)	T2-3
YUNES, Nicolas (Montana State University)	T1-4
YURTSEVER, Aycan (INRS-EMT)	W2-3 T2-1

- Z -

ZHANG, Wei-Wei (IQST, University of Calgary)	W-POS
ZHANG, Xiaoming (University of Western Ontario)	T2-2
ZHANG, Zhenfu (University of Toronto)	T3-9
ZHUANG, Ge (Huazhong U. of Science and Technology)	T1-8
ZIPRICK, Jonathan (University of New Brunswick)	R1-5

Harnessing the Quantum World

At the heart of Canada's Quantum Valley, the Institute for Quantum Computing fosters the creation of technologies that will fuel the Quantum Revolution for Canada.



LEARN MORE AT
UWATERLOO.CA/IQC



UNIVERSITY OF
WATERLOO

IQC

Institute for
Quantum
Computing

THE BRIGHTEST LIGHT IN CANADA!



The Canadian Light Source is Canada's premier source of intense light for research, spanning from the far infrared to hard x-rays.

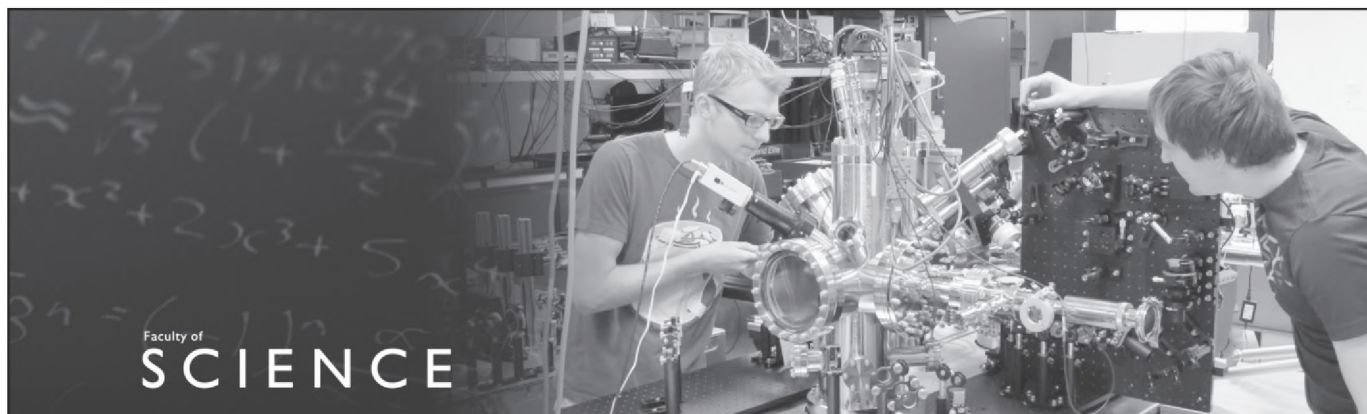
In our first 10 years of operations we've hosted over 2,500 researchers from academic institutions, government, and industry, from 10 provinces and 2 territories, and provided a scientific service critical in over 1,000 scientific publications.

To learn about how you can use synchrotron light in your research, visit www.lightsource.ca



Canadian Light Source
Centre canadien de rayonnement
synchrotron

TEN YEARS
OF DISCOVERY



Faculty of
SCIENCE

The University of Alberta **Faculty of Science Internship Program** welcomes job postings from employers interested in hiring undergraduate physics student interns. Identify fantastic future employees through a 4, 8, 12, or 16 month paid position starting in January, May, or September.

These students possess a solid knowledge base and technical skill set from their academic courses and labs, with many students having additional research and volunteer experience in scientific fields.

uab.ca/ScienceInternship
Science.Internship@ualberta.ca
780-248-1117



The Canadian Journal
 of **Physics** reports significant advances
 in physics research contributed by recognized
 experts in Canada and abroad.

To submit an article visit
nrcresearchpress.com/cjp/

 Canadian Journal
 of **Physics**



Canadian Association of Physicists
Association canadienne des physiciens
et physiciennes

CAP Congress Congrès de l'ACP



University of Ottawa
Université d'Ottawa
Ottawa, ON

June 13-17, 2016
13-17 juin 2016

www.cap.ca/en/congress/2016
www.cap.ca/fr/congres/2016



ALL UN-
DELIVER-
ABLE
COPIES IN
CANADA /
TOUTE
CORRES-
PONDANCE
NE POU-
VANT ETRE
LIVREE
AU CANADA

should be
returned
to / devra
être
retournée
à :

Canadian
Association of
Physicists /
l'Association
canadienne des
physiciens et
physiciennes

Suite / bur. 112
Imm. McDonald
Bldg., Univ. of/
d'Ottawa,
150 Louis
Pasteur Pvt.,
OTTAWA ON
K1N 6N5

Canadian Publications Product Sales Agreement No.
40036324 / Numéro de convention pour les envois de
publications canadiennes : 40036324