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Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

2018
CAP CONGRESS
CONGRÈS DE L'ACP
PROGRAM / PROGRAMME



DALHOUSIE 1818
UNIVERSITY 2018

DALHOUSIE UNIVERSITY
HALIFAX, NOVA SCOTIA

JUNE 11-15, 2018
11-15 JUIN 2018

CAP.CA (CONGRESS & CONFERENCES)
CAP.CA (CONGRÈS ET CONFÉRENCES)

**THE 2018 CAP CONGRESS PARTNERS
WELCOME YOU TO HALIFAX**

**LES PARTENAIRES DU CONGRÈS 2018 DE
L'ACP VOUS SOUHAITENT LA BIENVENUE À
HALIFAX**



**DALHOUSIE 1818
UNIVERSITY 2018**

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

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Advertising Rates and Specifications
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dès janvier 2018) 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 Dalhousie
University in Halifax, NS

Avis aux délégués

Une copie du programme imprimé
sera donnée aux délégués au
Congrès annuel, à l'Université Dal-
housie à Halifax, N-É

Front Cover / Couverture

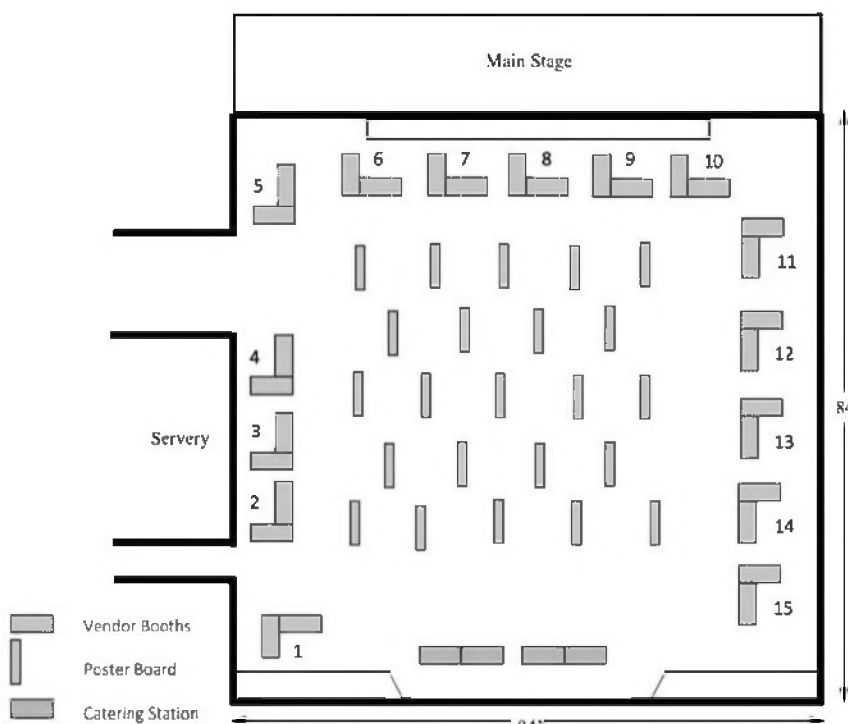
The 2018 Congress poster prepared by the Local Organizing Committee /
L'affiche du Congrès 2018 produit par le Comité organisateur locale.

Exhibitors, Posters, Tues-Wed breaks / Kiosques d'exposants, affiches, pauses de mardi/mercredi

*As of Sunday, May 20th. Booth numbers are subject to change.

*Le dimanche 20 mai. Les numéros de kiosques pourraient changer.

The McInnes Room



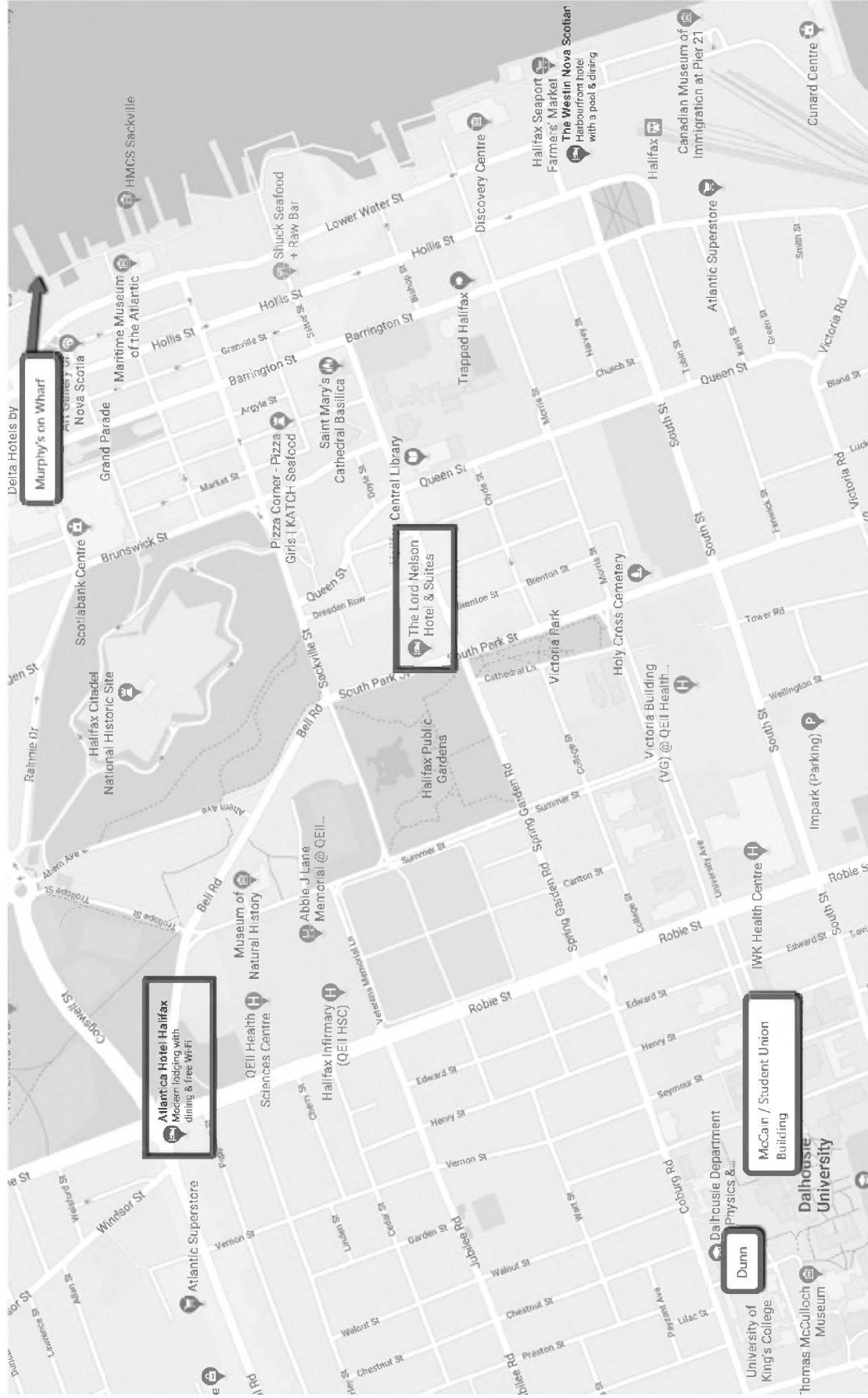
Registration and CAP Information desks are located in the 1st floor lobby of the Student Union Building (SUB).

L'inscription et le bureau de l'ACP sont situés dans l'Hall du 1er étage de l'immeuble du syndicat étudiant (Student Union - SUB).

1	2	3
Kurt J. Lesker Company	PLASMIONIQUE Advancing Plasma-Based Technologies L'Avant-Garde de Technologies Plasma	VPC VACUUM PRODUCTS CANADA absolute solutions solutions absolues
4	5	7
thePersonal Home and Auto Group Insurer The right fit.	DELTA PHOTONICS	PRAXAIR
8	10	11
SFR MAGNIFYING NANOSCIENCE	SNOLAB	Channel Systems
12 and 13	14	15
DALHOUSIE UNIVERSITY 1818 2018 DEPARTMENT OF PHYSICS & ATMOSPHERIC SCIENCE	Canadian Journal of Physics	Springer

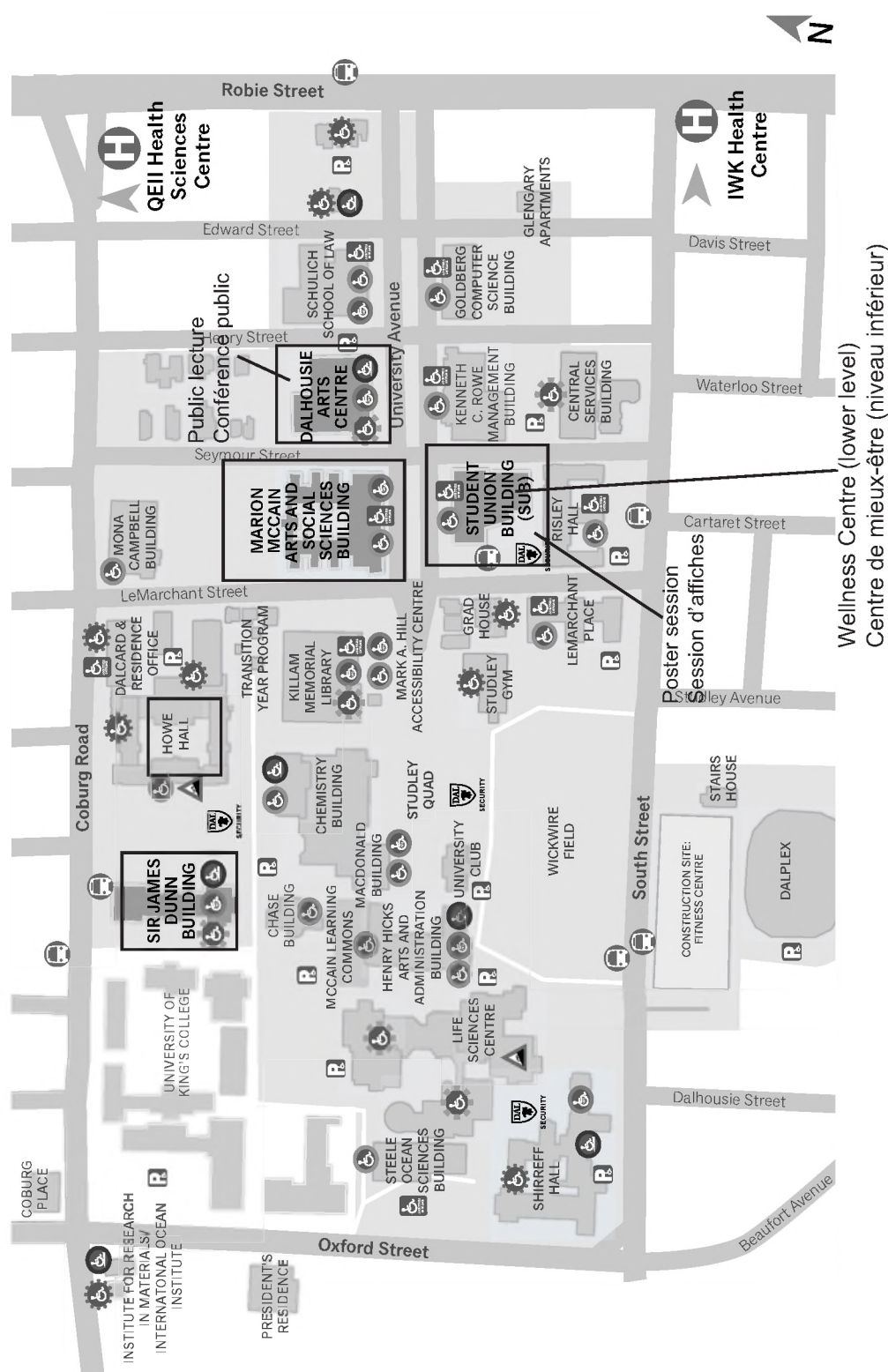
Important Congress Locations in Halifax, NS

Endroits importants du Congrès à Halifax, N-É.



The registration and information desks are located in the 1st floor lobby of the Student Union Building. See page iv for the hours of operation.

Les bureaux d'inscription et d'information se trouvent dans le foyer de 1er étage de l'immeuble "Student Union". Voir page iv pour les heures d'ouverture.



- Building not accessible
- Full access to all floors in building
- Building mostly accessible
- Ground floor of building accessible only
- Accessible washroom within building
- Entrance suitable for wheelchair access
- Entrance with ramp
- Ramp slope over 10%
- Accessible parking space available
- Bus Transit
- Hospitals
- Blue Light Pole to contact Dalhousie Emergency Services 902.494.6400



See page 4 for parking information /
Voir page 4 pour renseignements de stationnement

Studley Campus Accessibility Map /
Carte d'accessibilité au campus Studley

The 74th CAP Annual Congress 74^e Congrès annuel de l'ACP

Information / Programme



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

NOTES TO DELEGATES

ONLINE RESOURCES AND INFORMATION

Visit <https://www.cap.ca/congress-conference/congress-2018/> for Congress information as well as resources to help you maximize your time in Halifax including:

- Uploading your presentation to the Congress Indico website
- Instructions for oral, poster, and Best student competition presentations
- Where to Eat
- Accommodations
- Experience Halifax
- Extending your stay beyond Congress

ABSTRACTS

Basic information about presentations can be found in this program starting on page 24. All other information, including a list of presenters, all co-authors and full abstracts, is found via the Indico website at <http://indico.cern.ch/e/CAP2018>.

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.

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

REGISTRATION

Unless otherwise indicated, the congress registration and information desk will be located in the 1st floor lobby of the Student Union Building and will be open as follows:

Sunday, June 10	08h00 - 09h30 (Dunn Building - for SMC2018) 11h00 - 13h30
Monday, May 29	07h30 - 17h00
Tuesday, May 30	07h30 - 17h00
Wednesday, May 31	07h30 - 17h00
Thursday, June 1	07h30 - 13h30

INTERNET ACCESS

Those delegates affiliated with an institution subscribed to Eduroam will be able to connect to Dalhousie's Wi-Fi network immediately upon arrival. Delegates without an Eduroam account will be given a Wi-Fi user-name and password with their registration package.

NOTES AUX DÉLÉGUÉS

RESSOURCES EN DIRECT

Veillez consulter <https://www.cap.ca/fr/congres-de-lacp/congres-2018/> pour connaître les ressources qui vous aideront à maximiser votre séjour à Halifax, par exemple :

- Téléverser votre présentation sur le site du programme du Congrès
- Instructions pour les présentations : orales, d'affiches, et compétitions étudiantes
- Où manger
- Hébergement
- L'expérience de Halifax
- à prolonger votre séjour après le Congrès

RÉSUMÉS

Vous pouvez trouver des exposés de renseignements de base dans le présent programme à partir de la page 24. Toute autre information, y compris une liste des présentateurs, les co-auteurs et les résumés complets, se trouve sur le site Web Indico - <http://indico.cern.ch/e/CAP2018>.

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 les participants inscrits. 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, comme suit :

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

INSCRIPTION

Sauf indication contraire, le comptoir des inscriptions et informations du congrès se situe dans l'Hall du 1er étage de l'immeuble du syndicat étudiant (Student Union - SUB) :

Dimanche 10 juin	08h00 - 09h30 (Immeuble Dunn - pour SMC2018) 11h30 à 13h30
Lundi 11 juin	07h30 à 17h00
Mardi 12 juin	07h30 à 17h00
Mercredi 13 juin	07h30 à 17h00
Jeudi 14 juin	07h30 à 14h00

ACCÈS À INTERNET

Les délégués affiliés à un établissement abonné à Eduroam pourront se connecter au réseau Wi-Fi de Dalhousie dès leur arrivée. La trousse d'inscription de ceux qui n'ont pas de compte Eduroam contiendra un nom d'utilisateur et un mot de passe pour le Wi-Fi.

Parking at Dalhousie University

The most convenient place for short term parking in Halifax is at the Pay and Display Lot on South Street called LeMarchant Place (#17 on the Studley Campus Parking Map found at <https://www.cap.ca/congress-conference/congress-2018/maps-and-parking/>). Rates are \$2 per hour to a maximum of \$20 per day. It is not possible to pay for partial hours. Daily or weekly general parking permits are no longer available. Dalhousie parking meters are located on and around campus. Meters are in operation from 7 a.m. to 4:30 p.m., Monday through Friday. Meter fees are not required after 4:30 p.m., or on weekends and statutory holidays. Meter violations will be subject to ticketing and the vehicle may be towed / immobilized at the owner's expense.

Dalhousie Human Rights & Equity Services

Henry Hicks Academic Administration Building, Dalhousie University

Phone: (902) 494-6672

Fax: (902) 425-1207

Email: HRES@dal.ca

Office Hours :

Monday - Friday from 8:30 a.m. to 4:30 p.m. (The office is closed from 12-1pm for lunch)

Emergencies

In the event of an emergency, call 911. If you are on campus, contact Security Services immediately by dialing 4109 from any telephone on campus, including pay telephones. On a cellphone, you must dial 494-4109.

Emergency Health Services

Emergency Health Services is a division of the Nova Scotia Department of Health and Wellness. It's important to know there is a charge for ambulance services.

The Halifax Infirmary Emergency Department is on Summer Street.

For children, IWK Health Centre Emergency is on South Street.

For Poison Control call 470-8161

Dalhousie Lost and Found

Security Services, located in the parking level of Marion McCain Building



Call for Photos:

Do you know any physicists who work outside of academia? Connect them with the CAP to be featured on our next "Spot the Physicist" poster! Email comms@cap.ca by June 30, 2018.

Stationnement a l'Université Dalhousie

L'endroit le plus commode pour le stationnement de courte durée à Halifax est l'espace Pay and Display Lot sur la rue South Street, appelé LeMarchant Place (no 17 sur la carte du stationnement sur le campus Studley, affichée à <https://www.cap.ca/fr/congres-de-lacp/congres-2018/maps-and-parking/>). Le taux est de 2 \$/heure, maximum de 20 \$/jour. Il n'est pas possible de payer pour une fraction d'heure. Les permis de stationnement général quotidien ou hebdomadaire n'existent plus. Les parcomètres de Dalhousie sont répartis sur le campus et aux alentours et fonctionnent de 7 h à 16 h 30, du lundi au vendredi. Il n'est pas nécessaire de payer aux parcomètres après 16 h 30, ni la fin de semaine et les jours fériés. Les infractions au stationnement feront l'objet de contraventions et les véhicules pourront être remorqués / immobilisés aux frais du propriétaire.

Les services des droits de la personne et de l'équité de Dalhousie (Human Rights & Equity Services)

Henry Hicks Academic Administration Immeuble, Université Dalhousie

Téléphone : 902-494-6672

Fax : 902-425-1207

Courriel : HRES@dal.ca

Les heures de bureau

8 h 30 à 16 h 30 du lundi au vendredi (Le bureau est fermé de 12 h à 13 h pour le déjeuner)

Urgences

En cas d'urgence, composez le 911. Si vous êtes sur le campus, communiquez immédiatement avec les Services de sécurité en composant le 4109 de tout téléphone sur le campus, dont les téléphones payants. Au cellulaire, il faut composer le 494-4109.

Services d'urgences de santé

Les Services d'urgences de santé sont une division du ministère de la Santé et du Mieux-être de la Nouvelle-Écosse. Il est important de savoir que les services ambulanciers sont facturés.

Le service d'infirmierie d'urgence de Halifax est situé sur la rue Summer.

Pour les enfants, le Centre d'urgence de soins de santé IWK est sur la rue South.

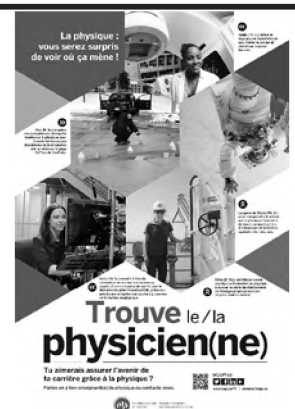
Pour le centre antipoisons, composez le 470-8161

Objets trouvés à Dalhousie

Services de sécurité, situés à l'étage du stationnement de l'immeuble Marion McCain

Demande de photos

Connaissez-vous un physicien qui travaille hors du milieu universitaire? Mettez-le en rapport avec l'ACP afin qu'il apparaisse sur notre prochaine affiche « Peux-tu trouver le physicien »! Envoyez un courriel à comms@cap.ca d'ici le 30 juin 2018.



Equity, Diversity and Inclusion

The Canadian Association of Physicists (CAP) is committed to and responsible for advancing equity, diversity, and inclusion in physics. The 2018 CAP Congress welcomes all delegates and encourages participation from everyone, regardless of gender, gender identity/gender expression, sex, sexual orientation, marital status, family status, body size, race, religion, creed, national origin, ancestry, age, political affiliation, educational background, wealth, or health status. We recognize a shared responsibility to create and hold a welcoming environment for the benefit of all. The CAP urges its members, physics leaders, Congress participants, and policy makers to take action to improve the recruitment, retention and treatment of communities underrepresented in physics at all levels of education and employment.

Discriminatory, harassing or bullying behavior or action of any kind will not be tolerated, and will result in your removal from the 2018 CAP Congress, notification of appropriate authorities if necessary, and possible ban from future CAP-organized conferences and events. This includes, but is not limited to:

- (a) sexual harassment, such as using sexual imagery in a talk, unwelcome sexual attention, unsolicited physical contact, sexual or sexist jokes, and stalking;
- (b) intimidation, such as yelling at or threatening speakers verbally or physically;
- (c) offensive or demeaning language including inappropriate jokes.

If you experience or witness discrimination at any time during the 2018 CAP Congress, please call Dalhousie Human Rights & Equity Services at (902) 494-6672 or HRES@dal.ca. If you or someone else is in immediate danger, call 9-1-1. If you are on campus, contact Security Services by dialing 4109 from any telephone on campus including payphones. On a cellphone you must dial (902) 494-4109.

Équité, diversité et inclusion

L'Association canadienne des physiciens et physiciennes (ACP) a pris l'engagement et s'est chargée de faire avancer l'équité, la diversité et l'inclusion en physique. Le Congrès de l'ACP 2018 accueille tous les délégués et les invite tous à participer, quels que soient leur genre, identité/expression sexuelles, sexe, orientation sexuelle, état matrimonial, situation de famille, taille du corps, race, religion, croyance, origine nationale, ascendance, âge, affiliation politique, acquis scolaire, richesse ou état de santé. Nous assumons une responsabilité partagée à créer et maintenir un milieu accueillant à l'avantage de tous. L'ACP presse ses membres, les leaders en physique, les participants au Congrès et les décideurs de prendre des mesures pour améliorer le recrutement, la rétention et le traitement des collectivités sous-représentées en physique, à tous les niveaux d'étude et d'emploi.

Aucune forme de discrimination, de harcèlement ou d'intimidation ni action, de quelque sorte que ce soit, ne sera tolérée, mais elles donneront lieu à un renvoi du Congrès de l'ACP 2018, à la notification des autorités compétentes s'il y a lieu, et à une éventuelle interdiction des conférences et événements futurs organisés par l'ACP. Cela comprend, sans toutefois s'y limiter :

- (a) le harcèlement sexuel, tel l'utilisation d'images d'ordre sexuel dans une allocution, une conduite sexuelle importune, un contact physique non sollicité, les blagues à caractère sexuel ou sexiste et la traque furtive;
- (b) l'intimidation, par exemple crier après un conférencier ou le menacer verbalement ou physiquement;
- (c) le langage humiliant ou injurieux, y compris les blagues de mauvais goût.

Si vous subissez de la discrimination ou en êtes témoins, à n'importe quel moment pendant le Congrès de l'ACP 2018, veuillez appeler les services des droits de la personne et de l'équité de Dalhousie (Human Rights & Equity Services) à 902-494-6672 ou à HRES@dal.ca. Si vous-même ou quelqu'un d'autre êtes en danger immédiat, composez le 9-1-1. Si vous êtes sur le campus, communiquez avec les Services de sécurité en composant le 4109 de tout téléphone sur le campus, dont les téléphones payants. Au cellulaire, il faut composer le 902-494-4109.

Delegates observing Ramadan / Les délégués observant le Ramadan

The Dalhousie Student Union has reserved the Wellness Centre in the Student Union Building for our delegates to use as a prayer and wudu room from 9:00am-10:00pm from June 10-15. Yoga mats are available. A Friday Prayer is available at 1 pm in Room 307 of the same building.

Le Syndicat des étudiants de l'Université Dalhousie a réservé le Centre de mieux-être dans l'Immeuble Student Union de 09h00 à 22h00 du 10 au 15 juin pour que nos délégués puissent l'utiliser comme salle de prière. Des tapis de yoga sont disponibles. Une prière du vendredi est offerte à 13h00 dans la salle 307 du même immeuble.

Technical Program Committee / Comité du programme techniqueChair / *Président*

Atmospheric and Space Physics

Physique atmosphérique et de l'espace

Atomic, Molecular, and Optical Physics, Canada

Physique atomique, moléculaire et photonique, Canada

Condensed Matter and Materials Physics

*Physique de la matière condensée et des matériaux*History of Physics / *Histoire de la physique*

Applied Physics and Instrumentation

*Physique appliquée et de l'instrumentation*Physics in Medicine and Biology / *physique en médecine et biologie*Nuclear Physics / *Physique nucléaire*Particle Physics Division / *Physique des particules*Physics Education / *Enseignement de la physique*Plasma Physics / *Physique des plasmas*Surface Sciences / *Sciences des surfaces*Theoretical Physics / *Physique théorique*

Committee to Encourage Women in Physics

*Comité pour encourager les femmes en physique*Science Policy / *Politique scientifique*Treasurer / *Trésorier*

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I. Hill / H. Rotermund

K. Hall

T. Monchesky / S. Payne / A. Rutenberg

D. Labrie

R. Marshall

J. Robar

Herzberg Lecture Coordinator / *Coordonnateur de la conférence Herzberg*Banquet Coordinator / *Coordonnateur du Banquet*Poster Session Coordinator / *Coordonnateur de la session d'affiches*Room Coordinators / *Coordonnateurs de salle de conférence*Catering Coordinator / *Coordonnateur pour traiteur*Housing Coordinator / *Coordonnateur de l'hébergement*Volunteer Coordinator / *Coordonnateur des bénévoles*Program and Web Local Info. / *Info. locale du programme et web*Lab Tour Coordinator / *Coordonnateur des visites de laboratoires*Local Sponsorship Coordinator / *Coordonnateur des commandites locales*Head Graduate Volunteers / *Chefs des bénévoles étudiants*Local Website Maintenance / *Maintien du site web*AV/IT Coordinator / *Coordonnateur de l'audiovisuel et de l'informatique*

H. Rotermund

J. Currie

L. Kreplak

J. Currie / H A Jennex

J. Currie

J. Currie / H A Jennex

T. Monchesky

V. O'Neill

J. Dahn

J. Maassen

M. Cormier / K. Rotermund

V. O'Neill

J. Chisholm

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Dept. of Physics and Atmospheric Science /

Dépt de physique et des sciences de l'atmosphère

Tel./Tél. : (902) 494-2337

Canadian Association of Physicists

Association canadienne des physiciens et physiciennes

555 King Edward Ave., 3rd Fl., Ottawa ON K1N 7N5

Tel./Tél. : (613) 562-5614; cap@uottawa.ca; www.cap.ca

CAP CONGRESS 2018
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 is 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.

CONGRÈS DE L'ACP 2018
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 des appareils de projection ou de tout autre matériel requis pour les présentations.
- 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.

LUNDI 11 JUIN - 19h30

THÉÂTRE REBECCA COHN
DALHOUSIE CENTRE POUR LES ARTS**CONFÉRENCE COMMÉMORATIVE PUBLIQUE HERZBERG 2018****Nergis Mavalvala**Laser Interferometer Gravitational-wave Observatory (LIGO)
Massachusetts Institute of Technology

« L'Univers gauchi : la quête centenaire d'Einstein à la découverte des ondes gravitationnelles »

Les annonces récentes de la toute première détection d'ondes gravitationnelles émanant de la collision d'étoiles à neutrons et de trous noirs ont amorcé une nouvelle ère de l'astrophysique de ces ondes. Einstein avait prédit les ondes gravitationnelles il y a 100 ans. Je décrirai l'histoire scientifique, technologique et humaine derrière ces découvertes qui ouvrent de toutes nouvelles perspectives sur certains événements les plus violents et tordus de l'Univers.

NOTE BIOGRAPHIQUE :

Nergis Mavalvala est une physicienne dont les recherches sont axées sur la détection d'ondes gravitationnelles à partir des événements violents qui, dans le cosmos, créent des vagues et des onduations dans le tissu espace-temps. Elle était membre de l'équipe scientifique qui a annoncé la première détection directe d'ondes gravitationnelles, nées de la collision de trous noirs, à l'aide des détecteurs du Laser Interferometer Gravitational-wave Observatory (LIGO) en février 2016. Mme Mavalvala a reçu un B.A. du Wellesley College en 1990 et un doctorat de l'Institut de technologie du Massachusetts (MIT) en 1997. Elle sera chercheuse postdoctorale, puis chercheuse à l'Institut de technologie de Californie entre 1997 et 2002. Depuis, elle est professeure de physique à l'Institut de technologie du Massachusetts où elle est maintenant professeure « Marble » de physique, directrice adjointe du Département de physique et lauréate d'un prix « génie » MacArthur 2010. Dans ses temps libres, elle adore faire du vélo sur de longues distances, divers sports et fréquenter les membres de sa famille.



CONFÉRENCE PUBLIQUE COMMÉMORATIVE HERZBERG 2018
L'univers gondolé: un siècle de recherche pour découvrir les ondes gravitationnelles d'Einstein

La première détection d'ondes gravitationnelles, prédites par Einstein il y a plus d'un siècle, a été récompensée par le prix Nobel de physique 2017 et représente l'aube d'une nouvelle ère pour l'astrophysique. La professeure Mavalvala étudie ces phénomènes depuis sa thèse au MIT dans les années 1990.

Présentée par: Professeure Nergis Mavalvala
Massachusetts Institute of Technology (MIT)
Laser Interferometer Gravitational-Wave Observatory (LIGO)

Lundi 11 juin 2018 19 h 30
Rebecca Cohn Auditorium, 6101 University Ave
(conférence en anglais)

ADMISSION GRATUITE
PARKING GRATUIT (derrière Sir James Dunn Building)
Pour plus d'information: www.cap.ca

SUNDAY, JUNE 10**- IMM. SUB BLDG. -****DIMANCHE 10 JUIN****L'atelier de MITACS pour étudiants diplômés**

SUB 302

13h30 - 16h30

Un atelier de trois heures, dirigé par MITACS, pour vous aider à instaurer votre réseau et vos compétences en réseautage. Pré-inscription requis.

Séminaire: Du doctorat aux études postdoctorale

SUB 303

16h30 - 17h30

L'atelier MITACS sera suivi immédiatement par un séminaire d'une heure (avec repas) visant à aider les étudiants intéressés à passer du doctorat aux recherches postdoctorales. Ce séminaire gratuit est généreusement parrainé par le programme Transformative Quantum Technologies de l'Université de Waterloo. Pré-inscription non-requis.

MONDAY, JUNE 11 - 19h30

REBECCA COHN THEATRE
DALHOUSIE UNIVERSITY**2018 HERZBERG MEMORIAL PUBLIC LECTURE****Nergis Mavalvala**Laser Interferometer Gravitational-wave Observatory (LIGO)
Massachusetts Institute of Technology**The Warped Universe: The One Hundred Year Quest to Discover Einstein's Gravitational Waves**

The recent announcements of the first ever detections of gravitational waves from colliding black holes and neutron stars have launched a new era of gravitational wave astrophysics. Gravitational waves were predicted by Einstein a hundred years earlier. I will describe the science, technology, and human story behind these discoveries that provide a completely new window into some of the most violent and warped events in the Universe.

BIOGRAPHICAL NOTE:

Nergis Mavalvala is a physicist whose research focuses on the detection of gravitational waves from violent events in the cosmos that warp and ripple the very fabric of spacetime. She was a member of the scientific team that announced the first direct detection of gravitational waves from colliding black holes using the Laser Interferometer Gravitational-wave Observatory (LIGO) detectors in February 2016. She received a B.A. from Wellesley College in 1990 and a Ph.D. from the Massachusetts Institute of Technology in 1997. She was a postdoctoral fellow and research scientist at the California Institute of Technology between 1997 and 2002. Since 2002, she has been on the Physics faculty at the Massachusetts Institute of Technology where she is now the Marble Professor of Physics, Associate Department Head of Physics and recipient of a 2010 MacArthur "genius" award. In her spare time, she loves to bicycle long distances, play sports, and hang out with her family.



2018 HERZBERG MEMORIAL PUBLIC LECTURE

The Warped Universe: The One Hundred Year Quest to Discover Einstein's Gravitational Waves

Two years ago, the first detection of gravitational waves (predicted by Einstein one hundred years ago) led to the Physics Nobel Prize in 2017 and has launched a new era of gravitational wave astrophysics. Professor Mavalvala has been working in this field since she was a graduate student at MIT in the early 1990's.

Presented by: Professor Nergis Mavalvala
Massachusetts Institute of Technology (MIT)
Laser Interferometer Gravitational-Wave Observatory (LIGO)

Monday, June 11, 2018 7:30 pm
Rebecca Cohn Auditorium, 6101 University Ave

FREE ADMISSION
FREE PARKING (behind Sir James Dunn Building)
For more information: www.cap.ca


SUNDAY, JUNE 10**- IMM. SUB BLDG.-****DIMANCHE 10 JUIN****MITACS Workshop for Graduate Students**

SUB 302

13h30 - 16h30

A three-hour workshop to help you build your network and networking skills. Pre-registration required.

PhD to Post-doc Workshop

SUB 303

16h30 - 17h30

Immediately following the MITACS workshop there will be a one-hour seminar aimed at helping interested students navigate the transition from PhD to post-doctoral opportunities. This free session is open to all grad students and generously being sponsored by the University of Waterloo's Transformative Quantum Technologies. Pre-registration is not required.

SUNDAY, JUNE 10**- IMM. DUNN BLDG. -****DIMANCHE 10 JUIN****Soft Matter Canada 2018
Matière molle Canada 2018**Dunn 101
09h00 - 19h30**MONDAY, JUNE 11****- IMM. MCCAIN BLDG. -****LUNDI 11 JUIN****18th Annual HS Physics Teachers Day** (see pg.16 for schedule) (McCain 2021)
18e journée annuelle des enseignants de physique (voir p.16 pour horaire) 07h30 - 15h30**Plenary Talks / Conférenciers pléniers**Pour la version française des résumés de conférences plénières, veuillez consulter la page
<https://www.cap.ca/fr/congres-de-lacp/congres-2018/liste-des-conferenciers-pleniers-2018/>**OPENING SESSION / OUVERTURE DU CONGRÈS**ONDAATJI HALL
9h00 - 9h15**STEVEN NAGLER, OAK RIDGE NATIONAL LAB**ONDAATJI HALL
9h15 - 10h00**Pulsed neutrons, fractional excitations, and quantum spin liquids**

Sixty years ago, Canadian Physicist Bertram Brockhouse pioneered inelastic neutron scattering. His invention, the triple axis spectrometer, enabled direct measurements of phonons, magnons, and other collective elementary excitations in materials. In more recent times the practice of inelastic neutron scattering has been revolutionized by pulsed neutron time-of-flight spectroscopy, enabled in part by the vast increase in available computational power. This has allowed detailed investigations of exotic phenomena including fractionalized magnetic excitations. This talk will begin by surveying some relevant developments in neutron instrumentation, primarily at the accelerator-based Spallation Neutron Source at Oak Ridge. The focus will then shift to the physics of quantum magnets and fractionalized excitations, showing how these are probed by neutron scattering. Next will be a look at the exactly solvable model on a honeycomb lattice proposed by Alexei Kitaev, that exhibits a quantum spin liquid ground state. The talk will conclude with an examination of recent experiments on materials that exhibit mutually competing interactions like those postulated by Kitaev, showing evidence for fractional excitations associated with his eponymous quantum spin liquid.

TOWARDS A MORE INCLUSIVE PHYSICS

ONDAATJI HALL - 10h00 - 10h45

Creative, collaborative effort to advance a respectful and caring community can make a big difference to students, staff and faculty in physics departments, improving their ability to thrive. Data on demography and the climate for inclusion at MIT show the effects of inclusive leadership based on community, culture and values. This short talk will provide both data and tips on how you can strengthen your department for everyone.

Prof. Nergis Mavalvala and Prof. Edmund Bertschinger from the Massachusetts Institute of Technology will be sharing their views and experiences as they relate to EDI in physics during this plenary session organized by the CAP's newly-formed Committee on Equity, Diversity and Inclusion.

N. Mavalvala
LIGO / MITE. Bertschinger
Institute Community and Equity Officer, MIT**SCIENCE POLICY WORKSHOP : HANDS-ON STRATEGIES FOR EFFECTIVE INTERACTIONS WITH MPs**ONDAATJI HALL
12:30 - 14h00**COMMERCIAL PUBLISHERS SESSION - NELSON EDUCATION
SESSION DES ÉDITEURS COMMERCIAUX - NELSON EDUCATION**MCCAIN 2017
12:30 - 13h30**CLS INVITATION ONLY CANADIAN LIGHT SOURCE USERS CONSULTATION LUNCHEON**MCCAIN 2102
12:30 - 13h30

MONDAY, JUNE 11**- IMM. McCAIN BLDG. -****LUNDI 11 JUIN****SARAH JOHNSON, SIMON FRASER UNIV..**

(CAP Medal for Excellence in Teaching Undergraduate Physics /
Médaille pour l'excellence en enseignement de la physique au premier cycle)

ONDAATJI HALL

15h30 - 16h00**Teaching Physics to Future Physicians***

During my thirteen years of teaching undergraduate physics at Simon Fraser University the course I have taught the most often is the second course in our two-course introductory sequence for life science students. This course presents unique challenges for a variety of reasons. First, it is a lecture format course with a large enrollment, typically 150-250 students. Second, the primary reason students take this course is because it is required for their major, not because of an inherent interest in the material. There are many additional challenges including some students' weak math skills and their busy schedules. Over the years I have introduced a variety of new, research-based teaching methods in the hopes of improving not only these students' understanding of physics, but also their appreciation of the field. In this talk I will discuss some of the changes I have made to this course and the impact these changes have had. These include everything from strategies to make class time more interactive to extra-curricular programs that provide academic support. The majority of the students who take this class will eventually work in medicine or a life science-related industry where a good working knowledge of physics should prove invaluable.

*And pharmacists, physical therapists and a few physicists.

WELCOME BBQ RECEPTION

18H00 - 19H30 - STUDLEY QUAD

RÉCEPTION D'ACCUEIL AVEC BBQ

(RAIN LOCATION : SUB MCINNES HALL)

HERZBERG PUBLIC LECTURE (SEE PG. 10 FOR DETAILS)

19H30 - 21H30 - COHN THEATRE

CONFÉRENCE PUBLIC HERZBERG (VOIR P.10 POUR DÉTAILS)

DALHOUSIE ARTS CENTRE

TUESDAY, JUNE 12**- IMM. McCAIN BLDG. -****MARDI 12 JUIN****JOHN DUTCHER, UNIV. OF GUELPH**

ONDAATJI HALL

09h15 - 09h45**Soft Colloids, Hard Science and the Path from Discovery to Commercialization**

Colloids are small particles with diameters that lie within the nanoscopic and microscopic domains. Recently, research has focused on deformable or soft colloidal particles, such as microgels and star polymers, which show fascinating behaviour such as jamming and glass formation in dense dispersions. I will describe our journey from our initial serendipitous discovery of a new type of soft colloidal particle, phytoglycogen, which is produced in the form of highly branched, monodisperse nanoparticles in sweet corn to our detailed analysis of their structure, hydration and soft mechanical properties to the commercialization of this natural, sustainable nanotechnology in our Guelph-based spinoff company Mirexus.

NSERC Community Updates

ONDAATJI HALL

Mises-à-jour de la CRSNG pour la communauté

10h15 - 11h15

New Faculty Lunch Meeting with NSERC

SUB 302

Dîner-rencontre des nouveaux professeurs avec la CRSNG

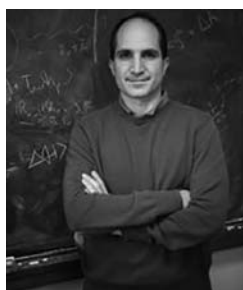
12h30 - 13h30

Student Seminar: Non-Academic Physics Careers

SUB 307

Séminaire d'étudiants: Carrières de physique non académiques

12h30 - 13h30

TUESDAY, JUNE 12**- IMM. McCAIN BLDG. -****MARDI 12 JUIN****JUAN MALDACENA, INST. FOR ADVANCED STUDIES**

ONDAATJI HALL

10h15 - 10h45**Black holes, wormholes and entangled states**

We think that black holes are ordinary quantum systems with a finite number of microstates, when we view them from the outside. A pair of black holes can then be entangled with each other. A special entangled state of this kind can be described by a geometry similar to the maximally extended Schwarzschild black hole. This geometry is a non-traversable wormhole. We will discuss how to make the wormhole traversable, viewing the process as an example of quantum teleportation. [Talk sponsored by Perimeter Institute and the Pacific Institute for Mathematical Sciences.]

CAP Poster Session including mingle with exhibitors and Industrial partners/employers

SUB McInnes Hall

18h00 - 19h30
Session d'affiches avec des exposants et des partenaires industriels et employeurs

A special graduate student networking reception, with food

19h30-20h30

Une réception spéciale pour étudiants avec nos partenaires industriels et employeurs, avec nourriture

An introduction to professional certification during a meet & mingle event with our industrial partners. As at time of print, the partners include: Jordan Kyriakidis : QRA Corp; Alan Fine: Alentic Microscience; Guy Earle: IO Bioscience; Anne Spence (or other): MITACS; Vince Myers from DRDC Atlantic; and Steven Beyea: "Biotic". Check the CAP's Graduate Student Congress page at <https://www.cap.ca/congress-conference/congress-2018/graduate-students-congress/> for updates. PRE-REGISTRATION NOT REQUIRED.

Une introduction à la certification professionnelle lors d'un événement meet & mingle avec nos partenaires industriels. Au moment de l'impression, les partenaires comprennent: Jordan Kyriakidis: QRA Corp; Alan Fine: Alentic Microscience; Guy Earle: IO Bioscience; Anne Spence (ou autre): MITACS; Vince Myers de RDDC Atlantique; et Steven Beyea: "Biotique". Consultez la page du Congrès pour étudiants diplômés de l'ACP au <https://www.cap.ca/fr/congres-de-lacp/congres-2018/etudiants-diplomes-au-congres/> pour les mises à jour. PRÉ-INSCRIPTION NON REQUIS.

WEDNESDAY, JUNE 13**- IMM. McCAIN BLDG. -****MERCREDI 13 JUIN****ARIEL ZHITNITSKY, UBC**
 (CAP-CRM Prize in Theoretical and Mathematical Physics /
 Prix ACP-CRM de physique théorique et mathématique)

ONDAATJI HALL

10h15 - 10h45**From Quarks to Cosmos, and back to Earth**

I overview the dark matter model offering a very natural and simultaneous explanation of three (naively unrelated) problems in particle physics, astrophysics and cosmology: 1. the observed asymmetry between matter and antimatter in the Universe, known as the "baryogenesis" problem; 2. the dark matter, the 80 years old problem; 3. The 80-years old puzzle which is known in the community as "solar corona heating puzzle" when the temperature of the corona is 2000 km above the surface is 100 times hotter than the Sun surface with its perfect thermal spectrum with $T=5770K$.

In this framework, both types of matter (dark and visible) have the same QCD origin, form at the same QCD epoch, and both are proportional to one and the same dimensional parameter of the system, the proton mass. It explains how the three, naively distinct, problems could be intimately related, and could be solved simultaneously within the same framework. I specifically want to review two very recent papers:

1. JCAP 1710 (2017) no.10, 050, arXiv 1707.03400
2. Solar Corona Heating by the Axion Quark Nugget Dark Matter, arXiv:1805.01897

WEDNESDAY, JUNE 13**- IMM. MCCAIN BLDG. -****MERCREDI 13 JUIN****JEAN-MICHEL POUTISSOU, TRIUMF**

(CAP Achievement Medal / Médaille de l'ACP pour contributions exceptionnelles)

ONDAATJI HALL

10h45 - 11h15

Studying the weak interaction with a strong team at TRIUMF

After briefly tracing the history of my involvement in weak interactions studies at TRIUMF, I will present the prospect for future major advances and opportunities which are available to the younger generation of Canadian physicists. Throughout this talk, neutrinos will take a special role as a unique but elusive tool which has and will continue to shed critical information of the working of our Universe.

I will point out the reward for working in strong partnership and with dedicated colleagues worldwide as a way to advance fundamental knowledge and to contribute to a better society.

Student Seminar: Physicists in Industry**SUB 303****Séminaire d'étudiants: Les physiciens dans l'industrie**

17h45 - 18h00

**ANNE MARTEL, SUNNYBROOK RESEARCH INST.**

SCOTIABANK AUDITORIUM

UNIV. OF TORONTO

17h00 - 17h45

Machine Learning for Medical Image Analysis

Over the last decade, machine learning (ML) methods have become increasingly important in medical imaging. In addition to more traditional classification tasks, ML is now being used in many other applications including object search and segmentation, image registration and even image reconstruction.

Recent advances in deep learning have accelerated this trend and it is now possible to achieve human level performance in several diagnostic tasks where large databases of labelled images are available. This talk will provide an overview of this rapidly changing field and will describe how convolutional neural networks can be used for classification and segmentation in radiology and digital pathology. The challenges associated with translating deep learning applications into clinical practice will also be explored.

CAP President's Report

SCOTIABANK AUDITORIUM

Rapport du président de l'ACP

17h45 - 18h00

Annual General Meeting (see agenda on p. ??)

SCOTIABANK AUDITORIUM

Assemblée générale annuelle (voir ordre du jour à p. ??)

18h00 - 19h15

Medallists Award Banquet (bus information at registration desk)**MURPHY'S WHARF****Assemblée générale annuelle** (information d'autobus disponible)

19h30 - 22h00

THURSDAY, JUNE 14**- IMM. MCCAIN BLDG. -****JEUDI 14 JUIN****JEFF DAHN, DALHOUSIE UNIV.**

ONDAATJI HALL

9h00 - 9h45

Why do lithium-ion batteries eventually die and what can be done about the situation

Lithium-ion batteries used in smart phones last several years. However, they must last at least a decade in electric vehicles and many decades in electrical energy storage systems. In this lecture I will explain why Li-ion batteries eventually fail and introduce simple methods we have invented to rank

lithium-ion cell lifetime in experiments that only take a few weeks. These simple methods are crucial for researchers, battery manufacturers and users who cannot test new battery chemistries for years and years to identify better batteries. [Photo courtesy of Danny Abriel, Dalhousie University]

THURSDAY, JUNE 14**- IMM. MCCAIN BLDG. -****JEUDI 14 JUIN****TIGRAN GALSTIAN, UNIVERSITÉ LAVAL**

(CAP-INO Medal for Outstanding Achievement in Applied Photonics /

Médaille de l'ACP-INO pour contributions exceptionnelles en photonique appliquée)

ONDAATJI HALL

10h15 - 10h45**ACADEMIC AND APPLIED RESEARCH AT UNIVERSITY; RECONCILIATION OR NATURAL CONTINUATION?**

The university-industry collaboration remains a rather complex process due to the natural divergence of interests and methods (used by those two entities) that are often difficult to reconcile. I will describe several (past and currently on-going) projects of fundamental research and applied development performed by my team. This will include short description of research efforts devoted to understand fundamental mechanisms governing material properties (such as diffusion of chiral molecules) as well as the influence of light on the behavior of living organisms (bacteria, insect and humans). I will also briefly describe several on-going development projects that have more applied character (such as fiber thermometer, super resolution micro endoscope, etc.). Then I will "focus" on the case of the development of electrically variable liquid crystal lenses. Finally I will also describe the phase of the transfer of this technology to the industry and potential future applications.

**RITUPARNA KANUNGO, SAINT MARY'S UNIV. / TRIUMF**

(CAP-TRIUMF VOGT MEDAL RECIPIENT / MÉDAILLE VOGT DE L'ACP-TRIUMF)

ONDAATJI HALL

10h45 - 11h15**Reaction spectroscopy of rare isotopes unveil a new era in nuclear science**

Our Universe has a wide variety of visible matter at the heart of which lie various nuclear isotopes embodying nature's beauty of synthesizing the building blocks, protons and neutrons, into complex objects with different characteristics. Rare isotopes with large asymmetry of protons and neutrons bring to our laboratories the scope to explore nuclei and hence matter created in neutron-rich environments of our Universe. These short-lived rare isotopes can be studied at selected accelerator facilities having specialized capability of producing and energizing them, termed as radioactive ion (RI) beams, among which TRIUMF in Canada is a premier world-class centre. The presentation will outline how RI beams are allowing us to uncover the unknown properties of rare isotopes and leading to revelation of unconventional forms of nuclei such as, nuclear halo and skin, their exotic excitation phenomena, and fundamental changes of nuclear shells that break the bounds of our traditional knowledge and will show how experimental studies of static and dynamic observables of rare isotopes can illuminate on variations from different prescriptions attempting to describe the nuclear force.

Best Student Presentations Final Competition**Compétition finale pour les meilleures communications étudiantes**

ONDAATJI HALL

15h30 - 17h30**ERIC CORNELL, UNIVERSITY OF COLORADO**

ONDAATJI HALL

17h30 - 18h15**Looking for Fossils of the Big Bang in Molecular Spectra**

How can you learn about the early moments of the universe? How can you discover evidence for new sub-atomic particles? We usually think of ever-more exotic telescopes, or of ever-larger particle accelerators. I will talk about the third leg of the stool: precision measurement. We will see that the humble two-atom molecule should be thought of as an ultrahigh-electric-field laboratory.

Student Awards Ceremony**Cérémonie de reconnaissance d'étudiants**

ONDAATJI HALL

18h15 - 19h00

MONDAY, JUNE 11**- IMM. McCAIN BLDG. -****LUNDI 11 JUIN**

McCain 2021 (am session)
 Scotiabank Auditorium for Joint session with DPE
 McCain 2016 for lunch
 McCain 2021 (for pm session)

18th Annual Physics Teachers Day**18e journée annuelle des enseignants de physique**

	CAP Teachers' Workshop, Monday June 11, 2018
	Workshop Schedule
8:00	Registration, Coffee and meet and greet
9:00	Welcome
9:15	Pedagogy in action: hands-on activities and best classroom practices
10:00	Coffee and discussion
10:15	Perimeter Institute Presentation: Climate Change
11:15	Workshop Keynote: Jill Marshall (University of Texas at Austin)
12:00	Tools to improve recruitment and retention: Laura Stiles-Clark (St. Francis Xavier University)
12:30	Lunch
13:30	Affordable physics with the Arduino
14:00	Sharing what you learned with the group
14:15	Coffee break
14:30	Physics with a smart phone
15:00	Sharing what you learned with the group
15:15	Closing Remarks

	Post Workshop Schedule
15:30	Teacher CAP Medal Talk
16:00	Perimeter Institute Presentation: Cutting Edge Physics
17:00	Informal discussions
18:00	CAP BBQ (included with registration)
19:45	Herzberg Public Lecture: Nergis Mavalvala (MIT)
	"The Warped Universe: The One Hundred Year Quest to Discover Einstein's Gravitational Waves"

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 13, 2018
Le mercredi, 13 juin, 2018

TIME/HEURE : 17 h 45

PLACE : McCain Scotiabank Auditorium

Draft Agenda / Ordre du jour provisoire

1. Call to Order, Establishment of Quorum, and Approval of the Agenda
2. Report of Nominating Committee and brief explanation of Timing and Procedure for Election of Board of Directors
3. Approval of the Minutes of the May 30, 2017 Annual General Meeting
 - .1 Matters arising from the Minutes
4. Annual Report
 - .1 Membership Report
 - .2 Reviewed Financial Statements to December 31, 2017
5. Appointment of Audit Firm for Review of 2018 Finances
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 2018 Local Organizing Committee
8. Host Universities - Future Congresses
9. New Business
 - .1 2018 Membership Fees (G. Drake)
 - .2 Report from CAPF Board of Directors (M. Roney)
 - .3 CUPC 2018 at University of Alberta
 - .5 Updating CAP's Strategic Plan (S. Pistorius)
 - .6 Report by the Editor of Physics in Canada (B. Joós)
 - .7 Report by the Editor of Canadian Journal of Physics (M. Steinitz)
 - .8 Report of the Canadian National IUPAP Liaison Committee (R. Kanungo)
 - .9 Other Matters
10. Results of Board Election, Vote of Thanks and Change of the Chair
11. Date and Place of Next Meeting
12. Adjournment

ABBREVIATION CODES / CODES DES ABRÉVIATIONS

Divisions

DAMOPC	Division of Atomic, Molecular, and Optical Physics, Canada	DPE	Division of Physics Education
DAMPC	<i>Division de la physique atomique, moléculaire et photonique, Canada</i>	DEP	<i>Division de l'enseignement de la physique</i>
DAPI	Division of Applied Physics and Instrumentation	DPMB	Division of Physics in Medicine and Biology
DPAI	<i>Division de la physique appliquée et instrumentation</i>	DPMB	<i>Division de la physique en médecine et biologie</i>
DASP	Division of Atmospheric and Space Physics	DPP	Division of Plasma Physics
DPAE	<i>Division de la physique atmosphérique et de l'espace</i>	DPP	<i>Division de la physique des plasmas</i>
DCMMP	Division of Condensed Matter and Materials Physics	DSS	Division of Surface Sciences
DPMCM	<i>Division de la physique de la matière condensée et des matériaux</i>	DSS	<i>Division des sciences des surfaces</i>
DHP	Division of History of Physics	DTP	Division of Theoretical Physics
DHP	<i>Division de l'histoire de la physique</i>	DPT	<i>Division de la physique théorique</i>
DNP	Division of Nuclear Physics	PPD	Particle Physics Division
DPN	<i>Division de la physique nucléaire</i>	PPD	<i>Division de la physique des particules</i>
		CEWIP	Committee to Encourage Women in Physics
		CEFEP	<i>Comité pour encourager les femmes en physique</i>

Meetings / Réunions

S-xx	Sunday Meeting / <i>Réunion du dimanche</i>
M-xx	Monday Meeting / <i>Réunion du lundi</i>
T-xx	Tuesday Meeting / <i>Réunion du mardi</i>
W-xx	Wed. Meeting / <i>Réunion du mercredi</i>
R-xx	Thursday Meeting / <i>Réunion du jeudi</i>
F-xx	Friday Meeting / <i>Réunion du vendredi</i>

xx-PLEN	Plenary session on Monday(M), Tuesday(T), Wednesday(W) or Thursday(R) / <i>Session plénière du lundi(M), mardi(T), mercredi(W) ou jeudi(R)</i>
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Sessions

SMC18	Soft Matter Session / <i>Session de la matière molle</i>
M#-#	Monday Session / <i>Session du lundi</i>
T#-#	Tuesday Session / <i>Session du mardi</i>
W#-#	Wed. Session / <i>Session du mercredi</i>
R#-#	Thursday Session / <i>Session du jeudi</i>
T-POS	Tuesday Evening Poster Session / <i>Session d'affiches du mardi soir</i>

xx-MEDAL	Medal winner session on Monday(M), Tuesday(T), Wednesday(W) or Thursday(R) / <i>Récipiendaire d'une médaille du lundi(M), mardi(T), mercredi(W) ou jeudi(R)</i>
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Competitions

(G)	Graduate student / <i>étudiant du 2e ou 3e cycle</i>
(U)	Undergraduate student / <i>étudiant du premier cycle</i>
(G*) or (U*)	Student in competition / <i>étudiant en compétition</i>

Congress-at-a-Glance / Aperçu du Congrès 2018

Time	Sunday, June 10	Monday, June 11	Tuesday, June 12	Wednesday, June 13	Thursday, June 14	Friday, June 15
7:30	Pre-Congress Meetings		Exhibitors	Exhibitors	CINP Board meeting (w/food)	Post-Congress Meetings
7:45		Registration opens (consult printed program for daily hours)	Science Policy Committee Meeting (w/food)	PIC Editorial Board Meeting (w/food)		
8:00			Parallel Sessions T1 (60 Minutes)	Parallel Sessions W1 (105 Minutes)	Parallel Sessions R1 (60 Minutes)	CAPF AGM (w/food)
8:15						
8:30			Transfer time to plenary hall		Thur AM Plenary Talk (45 Minutes)	
8:45		Formal Opening	CAP Herzberg Medal Talk	Health Break	Health Break	
9:00		Monday Plenary Talk Speaker: Stephen Nagler, ORNL	Health Break	CAP-PRM Prize Talk	CAP-INO Talk	
9:15		Monday Plenary Session on diversity/inclusivity (speakers: N. Mavalvala and E. Bertschinger)	NSERC Report NSERC EG Chair Report CAP-NSERC LC Report	CAP Lifetime Achievement Medal Talk	CAP-TRIUMF Vogt Medal Talk	
9:30		Health Break				
9:45		Transfer time to technical sessions		Transfer time to technical sessions	Transfer time to technical sessions	
10:00		Parallel Sessions M1 (75 Minutes)	Parallel Sessions T2 (60 Minutes)	Parallel Sessions W2 (60 Minutes)	Parallel Sessions R2 (60 Minutes)	
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Last updated 2018 May 25

2018 CAP Congress | Congrès de l'ACP 2018
Dalhousie University | Université Dalhousie
June 10-15 | 10 au 15 juin 2018

SUB = Student Union Building

Sunday, June 10 | dimanche 10 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Cafeteria ouvert pour déjeuner (\$8,50 \$)	Howe Hall
08:00-09:30	Congress Registration Inscription au congrès	Dunn Lobby
08:30-19:30	Soft Matter Canada 2018 Matière molle Canada 2018	Dunn 101
10:00-11:30	CAP Board Orientation Réunion d'orientation du Conseil d'Administration de l'ACP	Dunn 221C
10:30-11:00	SMC Health Break Pause santé MMC	Dunn Lobby
11:00-13:30	Congress Registration Inscription au congrès	SUB 1st Floor Lobby
11:00-14:00	Cafeteria open for lunch (\$10) Cafeteria ouvert pour dîner (10 \$)	Howe Hall
12:30-17:00	CAP Advisory Council (Old and New) Conseil consultatif de l'ACP (ancien et nouveau)	SUB Council Chambers
13:30-16:30	Graduate Student Workshop: Physicists in the Workforce Atelier d'étudiants diplômés: Physiciens dans le marché du travail	SUB 302
15:30-16:00	SMC Health Break Pause santé MMC	Dunn Lobby
16:30-17:30	Workshop: PhD to Post-Doc Atelier : Du doctorat au études postdoctorale	SUB 303
17:00-19:30	Cafeteria open for dinner (\$14) Cafeteria ouvert pour souper (14 \$)	Howe Hall

Monday, June 11 | lundi 11 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Cafeteria ouvert pour déjeuner (8,50 \$)	Howe Hall
07:30-17:00	Congress Registration and Information Inscription au congrès et information	SUB 1st Floor Lobby
07:30-12:30	M-Teach - HS Teachers Workshop - a.m. Atelier des enseignants - matin	McCain 2021
9:00-9:15	Congress Welcoming Remarks Ouverture du Congrès	McCain Ondaatji Hall
9:15-10:00	M-PLN1 Plenary Session Session plénière - Steve Nagler, Oak Ridge National Lab.	McCain Ondaatji Hall
10:00-10:45	M-PLN2 Plenary - Towards a More Inclusive Physics Plénière - Vers une physique plus inclusive	McCain Ondaatji Hall
10:45-11:15	Health Break (Travel time to technical sessions) Pause santé (Transfert vers les sessions techniques)	SUB 2nd Floor Lobby
11:15-12:30	M1-1 Ultrafast EM waves I: Materials Science (DAMOPC/DCMMP) Ondes EM ultrarapides I : Sciences des matériaux (DPAMPC/DPMCM)	SUB 224
11:15-12:30	M1-2 Particle Physics I (PPD) Physique des particules I (PPD)	SUB 307
11:15-12:30	M1-3 Theory, Modelling, and Forecasting I (DASP) Théorie, modélisation et prévisions I (DPAE)	McCain 2016
11:15-12:15	M1-4 Quantum Theory (DTP) Théorie quantique (DPT)	McCain 2017
11:15-12:30	M1-5 Nuclear Astrophysics (DNP) Astrophysique nucléaire (DNP)	SUB 302
11:15-12:30	M1-6 Biophysics, microscopy and diseases (DPMB) Biophysique, microscopie et maladies (DPMB)	SUB 303
11:45-12:30	M1-7 New Perspectives on the Status of Women in Physics - Jill Marshall (DPE/HS Workshop)	McCain Scotiabank Aud.
11:00-14:00	Cafeteria open for lunch (\$10) Cafeteria ouvert pour dîner (10 \$)	Howe Hall
12:30-13:30	Lunch for Teachers' Day Dîner pour la journée des enseignants	McCain 2016
12:30-14:00	Science Policy Workshop Atelier Politique scientifique	Botterell B147
12:30-13:30	Commercial Publisher Workshop: Nelson Education Ateliers d'éditeurs commerciaux : Nelson Education	McCain 2017
12:30-13:30	M-CLS Invitation Only Canadian Light Source Users Consultation Luncheon	McCain 2102
13:30-15:30	M-Teach - HS Teachers Workshop - p.m. Atelier des enseignants - après-midi	McCain 2021
13:30-15:00	M2-1 Ultrafast EM Waves II: THz Science (DAMOPC/DCMMP) Ondes EM ultrarapides II : Science des THz (DPAMPC/DPMCM)	SUB 307
13:30-14:45	M2-2 Theory, Modelling, and Forecasting II (DASP) Théorie, modélisation et prévisions II (DPAE)	McCain 2016
13:30-15:00	M2-3 Particle Physics II (PPD) Physique des particules II (PPD)	SUB 303
13:30-15:00	M2-4 DPMR 101 (DPMR/DPMR)	SUB 224
13:30-15:00	M2-5 Nuclear Structure I (DNP) Structure nucléaire I (DNP)	SUB 302
13:45-15:00	M2-6 Intersections between gender inclusion and anti-racism work (CEWIP) Intersections entre le travail qui supporte la diversité et l'anti-racisme (CEWIP)	SUB 307
15:00-15:30	Health Break Pause santé	SUB 2nd Floor Lobby
15:30-17:15	CAP-NSERC Liaison Ctee Mtg Réunion du comité de liaison ACP-CRSNG	McCain 2102
15:30-16:00	M-MEDAL1 CAP Teaching Medal Médaille d'enseignement de l'ACP - Sarah Johnson, SFU	McCain Ondaatji Hall
16:00-16:15	Travel time to technical sessions Transfert vers les sessions techniques	
16:15-18:00	M3-1 Stochastic Biology (DPMB) Biologie stochastique (DPMB)	SUB 302
16:15-18:00	M3-2 General Contributions I (DASP) Contributions générales 1 (DPAE)	McCain 2016
16:15-18:00	M3-3 General Relativity I (DTP) Relativité générale I (DPT)	SUB 224
16:15-18:00	M3-4 Cold and Trapped Atoms, and Tests of Fundamental Symmetries I (DNP/DTP/PPD/DAMOPC) Atomes froids et piégés, et tests de symétries fondamentales I (DNP/DTP/PPD/DAMOPC)	McCain Scotiabank Aud.
16:15-18:00	M3-5 Magnetism (DCMMP) Magnétisme (DPMCM)	SUB 303
16:15-18:00	M3-6 Particle Physics III (PPD) Physique des particules III (PPD)	Dunn 101
18:00-19:30	Welcome BBQ Reception Réception d'accueil avec BBQ (rain/pluie -> SUB McInnes Hall)	Studley Quad

17:00-19:30	Cafeteria open for dinner (\$14) Cafétéria ouvert pour souper (14 \$)	Howe Hall
19:30-20:30	Herzberg Memorial Public Lecture Conférence commémorative publique Herzberg - Nergis Mavalvala, MIT	Cohn Theatre, Arts Centre
20:30-21:45	Post-talk Reception Réception d'après conférence	Cohn Theatre, Arts Centre

Tuesday, June 12 | mardi 12 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Cafétéria ouvert pour déjeuner (8.50 \$)	Howe Hall
07:30-17:00	Congress Registration and Information Inscription au congrès et information	SUB 1st Floor Lobby
07:30-09:00	Science Policy Committee Breakfast Meeting Petit déjeuner-rencontre du Comité de politique scientifique	McCain 2021
08:30-16:00	Exhibit booths open Salle d'exposition ouverte	SUB McInnes Hall
08:00-09:00	T1-1 Energy Storage 1 (DCMMP) Accumulation d'énergie 1 (DPMCM)	SUB 303
08:00-09:00	T1-2 Special CAP Plasma Physics Session: in Memory of Prof. Akira Hirose (DPP) Session spéciale en physique des plasmas: À la mémoire du prof. Akira Hirose (DPP)	SUB 307
08:00-09:00	T1-3 Ground-based and In Situ Observations I (DASP) Observations terrestres et in situ I (DPAE)	McCain 2016
08:00-09:00	T1-4 Mathematical Physics (DTP) Physique mathématique (DPT)	McCain 2017
08:00-09:00	T1-5 Quirks and Quarks (PPD/DTP) « Quirks » et quarks (PPD/DPT)	SUB 224
08:00-09:00	T1-6 Topics in medical physics and biophysics (DPMB) Sujets en physique médicale et biophysique (DPMB)	SUB 302
08:00-09:00	T1-7 Workshop: Preparing Your Teaching Dossier (DPE) Atelier : Préparation de votre dossier d'enseignement (DEP)	McCain Scotiabank Aud.
09:00-09:15	Travel time to Plenary Lecture Transfert vers la conférence plénière	
09:15-09:45	T-PLN1 Plenary Session Session plénière - J. Dutcher, U. Guelph	McCain Ondaatji Hall
09:45-10:15	Health Break (with exhibitors) Pause santé (avec exposants)	SUB McInnes Hall
10:15-11:15	NSERC Updates Mises-à-jour du CRSNG	McCain Ondaatji Hall
11:15-11:30	Travel time to technical sessions Transfert vers les sessions techniques	
11:30-12:30	T2-1 Ultrafast EM waves III: Quantum Control (DAMOPC/DCMMP) Ondes EM ultrarapides III: Contrôle quantique (DPAMPC/DPMCM)	SUB 303
11:30-12:30	T2-2 Round-table Discussion: How can we measure good teaching? (DPE) Table ronde : Comment mesurer le bon enseignement? (DEP)	McCain Scotiabank Aud.
11:30-12:30	T2-3 Ground-based and in Situ Observations II (DASP) Observations terrestres et In situ II (DPAE)	SUB 307
11:30-12:30	T2-4 Medical Imaging 1 (DPMB) Imagerie médicales 1 (DPMB)	McCain 2016
11:30-12:30	T2-5 Instrumentation and Imaging (DAPI) Instrumentation et imagerie (DPAI)	McCain 2017
11:30-12:30	T2-6 Experimental Techniques (DCMMP) Techniques expérimentales (DPMCM)	SUB 224
11:30-12:30	T2-7 Testing Fundamental Symmetries II (DTP/PPD/DNP) Tests de symétries fondamentales II (DPT/PPD/DPN)	SUB 302
11:00-14:00	Cafeteria open for lunch (\$10) Cafétéria ouvert pour dîner (10 \$)	Howe Hall
12:30-13:30	Student Seminar: Physicists in Industry Séminaire d'étudiants: Les physiciens dans l'industrie	SUB 307
12:30-13:30	DPMB Annual Meeting Assemblée annuelle DPMB	McCain 2017
12:30-13:30	DASP Annual Meeting Assemblée annuelle DPAE	McCain 2021
12:30-13:30	DPP Annual Meeting Assemblée annuelle DPP	McCain 2102
12:30-13:30	DAMOPC Annual Meeting Assemblée annuelle DPAMC	McCain 2016
12:30-13:30	DNP Annual Meeting Assemblée annuelle DPN	McCain 2176
12:30-13:30	New Faculty Lunch Meeting with NSERC Dîner-rencontre des nouveaux professeurs avec le CRSNG	SUB 302
12:30-13:30	Outreach Tête-à-tête Liaisons externes : Defining CAP's Outreach Goals	SUB 224
13:30-15:00	T3-1 Photonics (DAMOPC / DCMMP) Photoniques (DPAMPC / DPMCM)	McCain Scotiabank Aud.
13:30-14:30	T3-2 Thin Films, Magnetism and Solar Cells (DCMMP) Films minces, magnétisme et piles solaires (DPMCM)	Dunn 101
13:30-15:00	T3-3 Particle Physics IV (PPD) Physique des particules IV (PPD)	Dunn 135
13:30-15:00	T3-4 M Gravity and Cosmology (DTP/DHP) Gravité et cosmologie (DPT/DHP)	SUB 307
13:30-15:00	T3-5 Hadronic Physics (DNP) Physique hadronique (DPN)	SUB 224
13:30-14:45	T3-6 Developing Scientific Practices in the Laboratory (DPE) Exercice de la science en laboratoire (DEP)	SUB 303
13:30-15:00	T3-7 Surface Sciences (DSS) Science des surfaces (DSS)	SUB 302
15:00-15:30	Health Break (with exhibitors) Pause santé (avec exposants)	SUB McInnes Hall
15:30-16:45	T4-1 Energy Storage 2 (DCMMP) Accumulation 2 (DPMCM)	SUB 307
15:30-16:45	T4-2 Quantum Optics and Trapped Ions** (DAMOPC) Optique quantique et ions piégés (DPAMPC)	SUB 303
15:30-16:45	T4-3 Particle Physics V (PPD) Physique des particules V (PPD)	Dunn 135
15:30-16:45	T4-4 Films, surfaces and composites (DCMMP) Films, surfaces et composites (DPMCM)	Dunn 101
15:30-16:45	T4-5 Neutrinoless Double Beta Decay (DNP) Double désintégration bêta sans neutrinos (DPN)	SUB 302
15:30-16:45	T4-6 DASP General Contributions II (DASP) DPAE: contributions générales II (DPAE)	McCain 2017
15:30-16:45	T4-7 Physics of Biosensing (DPMB) Physique de la biodétection (DPME)	SUB 224
15:30-16:45	T4-8 Novel Approaches to Promoting Engagement in Physics Classes (DPE) Nouvelles approches pour promouvoir l'engagement dans les classes de physique (DEP)	McCain Scotiabank Aud.
16:45-17:00	Travel time to Plenary Lecture Transfert vers la conférence plénière	
17:00-17:45	T-PLN2 Plenary Session Session plénière - Juan Maldacena, Institute for Advanced Study at Princeton	McCain Ondaatji Hall

17:00-19:30	Cafeteria open for dinner (\$14) Caf��teria ouvert pour souper (14 \$)	Howe Hall
17:45-18:00	Travel time to Poster Session Transfert vers la session d'affiches	
18:00-19:30	T-POS Poster Session Session d'affiches	SUB McInnes Hall
19:30-19:45	Poster Judges Meeting Rencontre des juges d'affiches	SUB 224
19:30-21:30	Student Session : Professional Development plus mingle with industrial partners/employers/exhibitors Session d'��tudiants : Perfectionnement professionnelle plus rencontres avec partenaires industriels et employeurs et exposants	SUB McInnes Hall
19:45-21:00	Friends of CAP* Dinner and Meeting Souper et r��union des "Ami(e)s de l'ACP"	SUB 307
19:45-21:00	CAP Past Presidents' Meeting R��union des anciens pr��sidents de l'ACP	SUB 302
19:45-22:00	Departmental Leaders Business Meeting R��union d'affaires des directeurs de d��partements	SUB 303

Wednesday, June 13 / mercredi 13 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Caf��teria ouvert pour d��jeuner (8,50 \$)	Howe Hall
07:30-17:00	Congress Registration and Information Inscription au congr��s et information	SUB 1st Floor Lobby
07:00-08:30	PiC Editorial Board Meeting R��union du Comit�� de r��daction de La Physique au Canada	McCain 2017
07:00-08:30	CNILC Breakfast Meeting R��union du comit�� de liaison national canadien de l'UIPPA	McCain 2016
08:30-16:00	Exhibit booths open Salle d'exposition ouverte	SUB McInnes Hall
08:00-09:45	W1-1 Pattern Formation and Statistical Mechanics of Non-Equilibrium Systems (DCMMP) Formation de motif et m��canique statistique des syst��mes hors d'��quilibre (DPMCM)	SUB 307
08:00-09:45	W1-2 Strategies and Good Practices for Teaching Atomic, Molecular and Optical Physics (DAMOPC/DPE) Strat��gies et bonnes pratiques d'enseignement de la physique atomique, mol��culaire et optique (DPAMPC/DEP)	McCain Scotiabank Aud.
08:00-09:30	W1-3 Particle Physics VI (PPD) Physique des particules VI (PPD)	SUB 224
08:00-09:45	W1-4 Translational Research in Medical Physics Symposium (DPMB/DAP1) Symposium de recherche translationnelle en physique m��dicale (DPMB/DPA1)	SUB 303
08:00-09:45	W1-5 Fields and Strings I (DTP) Champs et cordes I (DPT)	SUB 302
09:45-10:15	Health Break (with exhibitors) Pause sant�� (avec exposants)	SUB McInnes Hall
10:15-10:45	W-MEDAL1 CAP-CRM Prize Prix ACP-CRM - Ariel Zhitnitsky, UBC	McCain Ondaatje Hall
10:45-11:15	W-MEDAL2 CAP Achievement Medal M��daille pour contributions exceptionnelles - Jean-Michel Poutissou, TRIUMF	McCain Ondaatje Hall
11:30-12:30	W2-1 Pattern Formation 2 (DCMMP) Formation de motif 2 (DPMCM)	SUB 224
11:30-12:30	W2-2 Light-Matter Interactions I (DAMOPC) Interactions lumi��re-mati��re (DPAMPC)	SUB 303
11:30-12:30	W2-3 Particle Physics VII (PPD) Physique des particules VII (PPD)	Dunn 101
11:30-12:30	W2-4 General Relativity II (DTP) Relativit�� g��n��rale II (DPT)	SUB 302
11:30-12:30	W2-5 COMP Special Session (DPMB) Session sp��ciale de l'OCPM (DPMB)	SUB 307
11:30-12:30	W2-6 Inclusive Science Education (Part 1) (DPE/CEWIP) ��ducation scientifique inclusive (1��re partie) (DEP/CEFEP)	McCain Scotiabank Aud.
11:00-14:00	Cafeteria open for lunch (\$10) Caf��teria ouvert pour d��ner (10 \$)	Howe Hall
12:30-13:30	DAP1 Annual Meeting Assembl��e annuelle DPA1	McCain 2017
12:30-13:30	DCMMP Annual Meeting Assembl��e annuelle DPMCM	McCain 2102
12:30-13:30	DPE Annual Meeting Assembl��e annuelle DEP	McCain 2016
12:30-13:30	PPD Annual Meetings Assembl��e annuelle PPD	McCain 2021
12:30-13:30	CAP Communications Committee Meeting R��union du comit�� de communications de l'ACP	SUB 302
12:30-13:30	Student Seminar: Physicists in Industry S��minaire d'��tudiants: Les physiciens dans l'industrie	SUB 303
13:30-15:00	W3-1 Creating Authentic Physics Learning Experiences (DPE) Cr��er d'authentiques exp��riences d'apprentissage en physique (DEP)	McCain Scotiabank Aud.
13:30-15:00	W3-2 Energy Storage 3 (DCMMP) Accumulation d'��nergie 3 (DPMCM)	SUB 303
13:30-15:00	W3-3 Fields and Strings II (DTP) Champs et cordes II (DPT)	Dunn 101
13:30-15:00	W3-4 Soft matter and molecular dynamic (DPMB/DCMMP) Mati��re molle et dynamique mol��culaire (DPMB/DPMCM)	SUB 302
13:30-15:00	W3-5 Quantum Sensors and Quantum Technology (DAMOPC) D��tecteurs quantiques et technologie quantique (DPAMPC)	SUB 307
13:30-15:00	W3-6 Particle Physics VIII (PPD) Physique des particules VIII (PPD)	Dunn 135
13:30-14:15	W3-7 Applied Physics Instrumentation (DAP1) Instrumentation de physique appliqu��e (DPA1)	McCain 2016
13:30-15:00	W3-8 Nuclear Structure II (DNP) Structure nucl��aire II (DPN)	SUB 224
15:00-15:30	Health Break (with exhibitors) Pause sant�� (avec exposants)	SUB McInnes Hall
15:30-16:45	Meeting of Best Student Oral Competition Judges R��union des juges pour la comp��tition meilleure pr��sentation d'��tudiants oral - (Divisions 15:30-16:15; CAP/ACP 16:15-16:45)	McCain 2016
15:30-16:45	W4-1 Energy Storage 4 (DCMMP) Accumulation d'��nergie 4 (DPMCM)	SUB 303
15:30-16:45	W4-2 Nonlinear Optics (DAMOPC) Optique non lin��aire (DPAMPC)	SUB 307
15:30-16:45	W4-3 Advances in Nuclear and Particle Physics Theory (DTP/PPD/DNP) Progr��s en physique nucl��aire et en physique des particules th��orique (DPT/PPD/DPN)	SUB 224
15:30-16:45	W4-4 DPMB Get together (DPMB) Rencontre DPMB (DPMB)	SUB 302
15:30-16:45	W4-5 Education Research-Informed Physics Teaching (DPE) L'enseignement de la physique enrichi par la recherche en ��ducation (DEP)	McCain Scotiabank Aud.
17:00-19:30	Cafeteria open for dinner (\$14) Caf��teria ouvert pour souper (14 \$)	Howe Hall
16:45-17:00	Travel time to Plenary Lecture Transfert vers la conf��rence pl��ni��re	
17:00-17:45	W-PLEN-1 Plenary Session Session pl��ni��re - Anne Martel, U.Toronto	McCain Scotiabank Aud.

17:45-18:00	CAP President's Report Rapport du président de l'ACP	McCain Scotiabank Aud.
18:00-19:15	CAP Annual General Meeting with election of Board members Assemblée générale annuelle de l'ACP avec election des membres du conseil administrative	McCain Scotiabank Aud.
19:15-19:45	Bus to Congress Dinner Autobus vers le dîner du Congrès	McCain entrance
19:45-22:00	CAP Medalists Award Banquet @ Murphy's - Limited seating. Tickets will not be sold at the door Banquet des médaillés de l'ACP chez Murphy's - Sièges limités; aucun billet vendu à l'entrée	Murphy's Wharf

Thursday, June 14 / jeudi 14 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Cafeteria ouvert pour déjeuner (\$8.50 \$)	Howe Hall
07:30-13:30	Congress Registration and Information Inscription au congrès et information	SUB 1st Floor Lobby
07:00-08:30	CINP Board meeting Réunion du conseil de l'ICPN	McCain 2021
08:00-09:00	R1-1 Theoretical Modeling of Materials I (DCMMP) La modélisation théorique de matériaux I (DPMCM)	SUB 307
08:00-09:00	R1-2 Medical Imaging 2 (DPMB) Imagerie médicale 2 (DPMB)	McCain 2016
08:00-08:45	R1-3 Particle Physics IX (PPD) Physique des particules IX (PPD)	Dunn 101
08:00-09:00	R1-4 Inclusive Science Education (Part 2) (DPE/CEWIP) Éducation scientifique inclusive (2ième partie) (DEP/CEFEP)	McCain Scotiabank Aud.
08:00-09:00	R1-5 History of Physics (DHP) Histoire de la physique (DHP)	SUB 224
08:00-09:00	R1-6 Quantum Computing and Communication (DAMOPC/DTP/DCMMP) Calcul et communication quantiques (DPAMPC/DTP/DPMCM)	SUB 302
08:00-09:00	R1-7 Neutrons (DNP) Neutrons (DPN)	SUB 303
09:15-09:45	R-PLEN1 Plenary Session Session plénière - Jeff Dahn, Dalhousie Univ.	McCain Ondaatji Hall
09:45-10:15	Health Break Pause santé	SUB 2nd Floor Lobby
10:15-10:45	R-MEDAL1 CAP-INO Applied Photonics Medal Médaille ACP-INO en photonique appliquée - Tigran Galstian, Université Laval	McCain Ondaatji Hall
10:45-11:15	R-MEDAL2 CAP-TRIUMF Vogt Medal Talk Médaille Vogt de l'ACP-TRIUMF - Rituparna Kanungo, Saint Mary's University	McCain Ondaatji Hall
11:15-11:30	Travel time to technical sessions Transfert vers les sessions techniques	
11:15-13:15	Joint CINP-IPP Meeting (DNP-PPD) Réunion conjointe de l'ICPN et de l'IPP (DNP-PPD)	McCain Ondaatji Hall
11:30-12:30	R2-1 Theoretical modeling of materials 2 (DCMMP) Modélisation théorique de matériaux 2 (DPMCM)	SUB 303
11:30-12:00	R2-2 Electrochemical Energy Storage (DAPI) Stockage d'énergie électrochimique (DPAI)	SUB 302
11:30-12:30	R2-3 Laser Physics and Spectroscopy** (DAMOPC) Physique des lasers et spectroscopie (DPAMPC)	SUB 307
11:30-12:15	R2-4 Theoretical and computational biophysics (DPMB) Biophysique théorique et calculatoire (DPMB)	SUB 224
11:00-14:00	Cafeteria open for lunch (\$10) Cafeteria ouvert pour dîner (10 \$)	Howe Hall
12:30-13:30	CEWIP Annual Meeting & Reception Assemblée annuelle CEFEP et réception - incl. mention of C/P issue on Ursula Franklin	SUB 307
12:30-13:30	DHP Annual Meeting Assemblée annuelle DHP	McCain 2016
12:30-13:30	DTP Annual Meeting Assemblée annuelle DTP	McCain 2017
13:15-14:00	CINP AGM AGA de l'ICPN	SUB 303
13:30-15:00	CAP Foundation Board Meeting Réunion du CA de la Fondation de l'ACP	McCain 2017
14:00-15:00	R3-1 Nuclear physics, special topics (DNP) Sujets spéciaux en physique nucléaire (DPN)	SUB 303
13:30-15:00	R3-2 Light-Matter Interactions II (DAMOPC/DCMMP) Interactions lumière-matière II (DPAMPC/DPMCM)	SUB 302
13:30-15:00	R3-3 Particle Physics X (PPD) Physique des particules X (PPD)	SUB 224
13:30-15:00	R3-4 Condensed Matter / Quantum Theory (DTP/DCMMP) Matière condensée / théorie quantique (DTP/DPMCM)	SUB 307
13:30-15:00	R3-5 Multimodal and Nonlinear Imaging in Biological Systems (DPMB) Imagerie multimodale et non-linéaire dans les systèmes biologiques (DPMB)	Dunn 101
15:00-15:30	Health Break Pause santé	SUB 2nd Floor Lobby
15:30-17:30	R-PLEN2 CAP Best Student Presentations Final Competition Compétition finale de l'ACP pour les meilleures communications étudiantes	McCain Ondaatji Hall
17:30-18:00	R-PLEN3 Plenary Session Session plénière - Eric Cornell, Univ. of Colorado	McCain Ondaatji Hall
17:00-19:30	Cafeteria open for dinner (\$14) Cafeteria ouvert pour souper (14 \$)	Howe Hall
17:30-18:15	Judges Meeting (oral finals) Rencontre des juges (compétition oral finale)	McCain 2016
18:00-18:45	Student Awards Ceremony Cérémonie de reconnaissance d'étudiants	McCain Ondaatji Hall
19:15-20:00	CJP Editorial Board Meeting Réunion du comité de rédaction de la RCP	off-campus location
19:15-20:00	Meeting of 2018, 2019 Local Org. Committees Réunion des comités organisateurs locaux 2018, 2019	McCain 2016
20:00-22:00	Dinner and Meeting: CAP Board and Institutional Members Souper et réunion : Conseil d'administration de l'ACP et les membres institutionnels	McCain 2016

Friday, June 15 / vendredi 15 juin

07:00-10:00	Cafeteria open for breakfast (\$8.50) Cafeteria ouvert pour déjeuner (\$8.50 \$)	Howe Hall
08:00-09:00	CAP Foundation Annual General Meeting Assemblée annuelle de la Fondation de l'ACP	SUB 224
09:00-12:00	CAP Board Meeting (New and Old) Réunion du CA de l'ACP (nouveau et ancien)	SUB 224
09:00-13:00	IPP ACM AGA de l'IPP	SUB 303
11:00-14:00	Cafeteria open for lunch (\$10) Cafeteria ouvert pour dîner (10 \$)	Howe Hall
13:00-14:00	IPP Scientific Council Meeting Réunion du comité scientifique de l'IPP	SUB 224
14:00-17:00	IPP Inst. Members and Board of Trustees Meetings Réunions des membres inst. et du conseil de l'IPP	SUB 224

2018 CAP Congress / Congrès de l'ACP 2018

Sunday 10 June 2018

Cafeteria open for breakfast (7-10 am: \$8.50) | Cafétéria ouvert pour déjeuner (07h00-10h00: 8,50 \$) - Howe Hall Dining Room (07:00-10:00)

Congress Registration | Inscription au congrès - Dunn Lobby | Entrée du Dunn (08:00-09:30)

Soft Matter Canada 2018 | Matière molle Canada 2018 - Dunn 101 (cap.82) (10 Jun 2018, 09:00-19:30)

-Conveners: Rutenberg, Andrew (Dalhousie University)

time	title	presenter
09:15	A new perspective on the wetting of a solid surface by the drops of an emulsion (I)	RAMACHANDRAN, Arun (University of Toronto)
09:45	How molecular crowding controls the spatial organization of biopolymers in a confined space	Prof. HA, Bae-Yeun (University of Waterloo)
10:00	Probing the structure of electrochemically aggregated collagen	PODUSKA, Kristin (Memorial University of Newfoundland)
10:15	MacSANS: a new Small Angle Neutron Scattering facility at McMaster University	CLANCY, Patrick (McMaster University)
10:30	Coffee Break	
11:00	Morphology of ion-conducting polymers (I)	Prof. FRISKEN, Barbara (Simon Fraser University)
11:30	Organelles without borders: How phase transitions functionally organize living cells (I)	Prof. WEBER, Stephanie
12:00	Quantitatively Accurate Simulations for Block Copolymer Melts (I)	Prof. MATSEN, Mark (University of Waterloo)
12:30	Lunch	
13:30	Manufacturing Novel Biomaterials by Elongation of Fibers from Highly Viscous Polymer Solutions (I)	Dr FRAMPTON, John (Dalhousie University)
14:00	Collagen fibril's plastic damage: the rope and tube duality (I)	KREPLAK, Laurent (Dalhousie University)
14:30	Three-dimensional soft tunable platforms for control of cell-matrix interactions (I)	Prof. GOURDON, Delphine (Physics - University of Ottawa)
15:00	Coffee Break	
15:30	Electrochemical gelation of telechelic protein polymers (I)	Prof. HARDEN, James L. (University of Ottawa)
16:00	Characterization of the structure and function of self-assembling hydrophobin proteins	Dr LANGELAAN, David (Dalhousie University)

16:15	Free energy of a folded semiflexible polymer confined to a nanochannel of various geometries	POLSON, James (University of Prince Edward Island)
16:30	Folding landscapes of shape-shifting proteins: insights from a 3-letter coarse-grained model	WALLIN, Stefan (Memorial University of Newfoundland)
17:00	Water Models: adventures in parametrization (G)	Prof. BAUMEIER, Björn (Eindhoven University of Technology, Department of Mathematics and Computer Science & Institute for Complex Molecular Systems)
17:02	High-Throughput 3D Neural Cell Culture Analysis Facilitated by Aqueous Two-Phase Systems (G)	KO, Kristin Robin (Dalhousie University)
17:04	Bioprinting of Three-Dimensional Multicellular Skin Constructs (G)	Ms AGARWAL, Rishima (School of Biomedical Engineering, Dalhousie University)
17:06	POS-58 Study of a field-tunable colloid-polymer solution by Shivani Semwal (G)*	
17:08	POS-59 Effect of diffusion of cell lysate in a model polymer, via pulse gradient NMR by Yanitza Trosel Arroyo (G)*	
17:10	POS-60 Polymer dynamics in a gel network: the effect of confinement by Venketesh Thrithamara (G)*	
17:12	Stress Relaxation Mechanism of Single Collagen Fibrils and Relaxation Induced Morphological Changes (G)	IQBAL, S M Asif (Dalhousie University)
17:14	Multisequence algorithm for coarse-grained biomolecular simulations: Exploring the sequence-structure relationship of proteins (G)	Mr AINA, Adekunle (Memorial University of Newfoundland)
17:16	Polymorphism of stable collagen fibrils (G)	CAMERON, Samuel (Dalhousie)
18:00	Dinner	

SUN-Bd CAP Board Orientation | Réunion d'orientation du CA de l'ACP - Dunn 221C (cap.35) (10 Jun 2018, 10:00-11:30)

-Conveners: Pistorius, Stephen (CCMB, University of Manitoba)

SMC Health Break | Pause santé - Dunn Lobby | Entrée du Dunn (10:30-11:00)

Cafeteria open for lunch (11h00-14h00; \$10) | Cafeteria ouvert pour dîner (11h00-14h00: 10 \$) - Howe Hall Dining Room (11:00-14:00)

Congress Registration | Inscription au congrès - SUB 1st Floor Lobby | SUB Hall du 1er étage (11:30-13:30)

CAP Advisory Council (Old and New) | Conseil consultatif de l'ACP (ancien et nouveau) - SUB Council Chambers (cap.40) (10 Jun 2018, 12:30-17:00)

-Conveners: Pistorius, Stephen (CCMB, University of Manitoba)

Graduate Student Workshop: Physicists in the Workforce | Atelier d'étudiants diplômés: Physiciens dans le marché du travail - SUB 302 (cap.50) (10 Jun 2018, 13:30-16:30)

-Conveners: Ian D'Souza

SMC Health Break | Pause santé - Dunn Lobby | Entrée du Dunn (10 Jun 2018, 15:30-16:00)

Seminar: Transition from PhD to Post-Doctoral Opportunities | Séminaire: Du doctorat aux études postdoctorale - SUB 303 (cap.60) (10 Jun 2018, 16:30-17:30)

-Conveners: D'Souza, Ian (COM DEV Canada)

Cafeteria open for dinner (17h00-19h30; \$14) | Cafeteria ouvert pour souper (17h00-19h30; 14 \$) - Howe Hall Dining Room (17:00-19:30)



Monday 11 June 2018

Cafeteria open for breakfast (7-10 am; \$8.50) | Caf  teria ouvert pour d  jeuner (07h00-10h00; 8,50 \$) - Howe Hall

Dining Room (07:00-10:00)

Teachers' Day - morning workshop | Journ  e des enseignants - atelier du matin - McCain 2021 (cap.36) (11 Jun 2018, 07:30-12:30)

-Conveners: Monchesky, Ted (Dalhousie University); Payne, Stephen (Dalhousie University); Rutenberg, Andrew (Dalhousie University)

Congress Registration and Information | Inscription au congr  s et information - SUB - 1st Floor Lobby | Hall du 1er   tage (07:30-17:00)

Formal Opening (11 Jun 2018, 09:00-09:15)

-Conveners: Pistorius, Stephen (CCMB, University of Manitoba)

M-PLN1 - Plenary Session (S. Nagler) | Session pl  ni  re (S. Nagler) - McCain Ondaatji Hall (cap.500) (11 Jun 2018, 09:15-10:00)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
09:15	Pulsed neutrons, fractional excitations, and quantum spin liquids	Dr NAGLER, Stephen (Oak Ridge National Laboratory)

M-PLN2 Plenary Session - Towards a More Inclusive Physics | Session pl  ni  re - Vers une physique plus inclusive - McCain Ondaatji Hall (cap.500) (11 Jun 2018, 10:00-10:45)

-Conveners: Ghose, Shohini (Wilfrid Laurier University)

time	title	presenter
10:00	Towards a More Inclusive Physics	Dr BERTSCHINGER, Edmund (MIT) MAVALVALA, Nergis (Massachusetts Institute of Technology)

Health Break (Travel time to technical sessions) / Pause sant   (Transfert vers les sessions techniques) - SUB - 2nd Floor Lobby | Hall du 2e   tage (10:45-11:15)

Cafeteria open for lunch (11h00-14h00; \$10.00) | Caf  teria ouvert pour d  ner (11h00-14h00; 10,00 \$) - Howe Hall Dining Room (11:00-14:00)

M1-3 Theory, Modelling, and Forecasting I (DASP) | Th  orie, mod  lisation et pr  visions I (DPAE) - McCain 2016 (cap.36) (11 Jun 2018, 11:15-12:30)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
11:15	The impact of the observation of local ionospheric anomalies on our understanding of ionospheric-magnetospheric coupling. (I)	Prof. ST-MAURICE, Jean-Pierre (University of Saskatchewan)
11:45	GLOBAL MODELLING OF MAGNETOSPHERE-IONOSPHERE COUPLING: EPOP-SWARM OBSERVATIONS (I)	Prof. RANKIN, Robert (University of Alberta)
12:15	Kinetic simulations of needle probes on cubeSats	Prof. MARCHAND, Richard (University of Alberta)

M1-6 Biophysics, microscopy and diseases (DPMB) / Biophysique, microscopie et maladies (DPMB): (DPMB) I (DPMB) - SUB 303 (cap.100) (11 Jun 2018, 11:15-12:30)
-Conveners: Kreplak, Dr. Laurent (Dalhousie University)

time	title	presenter
11:15	Scaling Laws and Global Dimensions of Disordered Proteins: Single-molecule Data and Polymer Physics Theory (I)	Prof. GRADINARU, Claudiu (University of Toronto)
11:45	Polarization based imaging of amyloid in the retina gives a biomarker of severity of Alzheimer's disease	CAMPBELL, Melanie (University of Waterloo)
12:00	Biophysics approaches to study molecular mechanism of Alzheimer's disease.	Prof. LEONENKO, Zoya (University of Waterloo)
12:15	Bayesian Estimation of Photobleaching Steps with Physical Priors	RUTENBERG, Andrew (Dalhousie University)

M1-4 Quantum Theory (DTP) | Théorie quantique (DPT) - McCain 2017 (cap.36) (11 Jun 2018, 11:15-12:15)
-Conveners: Blunden, Peter (University of Manitoba)

time	title	presenter
11:15	Vortices and the fine structure of quantum light-cones (G)*	KIRKBY, Wyatt (McMaster University)
11:30	Thermalization by Rapid Bombardment (G)*	GRIMMER, Daniel (University of Waterloo)
11:45	Gravity in quantum systems: lessons from spectroscopy	Dr SCOTT, Rob (University of Brest)
12:00	Modification of Landau levels and degeneracy due to a parallel electric field	AUDIN, Yann (Bishop's University)

M1-5 Nuclear Astrophysics (DNP) | Astrophysique nucléaire (DPN) - SUB 302 (cap.40) (11 Jun 2018, 11:15-12:30)
-Conveners: Ruiz, Chris (TRIUMF)

time	title	presenter
11:15	Investigating key reactions of nuclear astrophysics interest using the DRAGON recoil separator (I)	Dr LENNARZ, Annika (TRIUMF)
11:45	Investigation of High-Lying (α, γ) Resonances in ^{22}Ne via High-Resolution Gamma Ray Spectroscopy in Inverse Kinematics (G)*	GREAVES, Beau (University of Guelph)

12:00	Evolution of the $N = 32$ shell closure in neutron-rich Ti & V isotopes at TRIUMF. (G)*	Ms DUNLING, Eleanor (University of York/TRIUMF)
12:15	Half-Lives of the Neutron-Rich $N \approx 82$ Isotopes $^{128-130}\text{Cd}$ and ^{131}In (G)*	DUNLOP, Ryan (University of Guelph)

M1-2 Particle Physics I (PPD) | Physique des particules I (PPD) - SUB 307 (cap.80) (11 Jun 2018, 11:15-12:30)

-Conveners: Yanez, Juan-Pablo (University of Alberta)

time	title	presenter
11:15	Standard Model and Higgs results from ATLAS (I)	DI SIPIO, Riccardo (University of Toronto (CA))
11:45	Massive Neutrino Search in $\pi \rightarrow e \nu$ Decay	Dr SULLIVAN, Tristan (Queen's University)
12:00	Research and Development for the NEWS-G Dark Matter experiment	Dr GROS, Philippe (Queen's University)
12:15	Past, present and future activities of NEWS-G at the LSM and SNOLAB	Dr ARNAUD, Quentin (Queen's University)

M1-1 Ultrafast EM waves I: Materials Science (DAMOPC/DCMMP) | Ondes EM ultrarapides I: Sciences des matériaux (DPAMPC/DPMCM) - SUB 224 (cap.50) (11 Jun 2018, 11:15-12:30)

-Conveners: Hall, Kimberly (U. Dalhousie); Légaré, François (INRS)

time	title	presenter
11:15	Waveform control for attoscience in condensed matter (I)	Dr HAMMOND, TJ (University of Ottawa)
11:45	Attosecond-Resolved Soft X-Ray Excitonics (I)	Dr B. BERTRAND, Julien (Laval University)
12:15	Simultaneous Adiabatic Rapid Passage in Multiple Quantum Dots (G)	Mr RAMACHANDRAN, Ajan (Dalhousie University)

M1-7 Joint Teachers' Workshop / DPE Session (DPE): New Perspectives on the Status of Women in Physics - McCain Scotiabank Auditorium (cap.250) (11 Jun 2018, 11:45-12:30)

-Conveners: Ahrensmeier, Daria (Simon Fraser University)

time	title	presenter
11:45	New Perspectives on the Status of Women in Physics	MARSHALL, Jill (University of Texas)

Science Policy Workshop: Hands-on strategies for effective interactions with MPs. - McCain Ondaatji Hall (cap.500) (11 Jun 2018, 12:30-14:00)

-Conveners: Gunther, Aimee (University of Waterloo)

MON-CLS Invitation Only Canadian Light Source Users Consultation Luncheon - McCain 2102 (cap.36) (11 Jun 2018, 12:30-13:30)

-Conveners: Boland, Mark (CLS)

Lunch for Teachers' Day i Dîner pour la journée des enseignants - McCain 2016 (cap.36) (12:30-13:30)

Commercial Publishers Session (Nelson) | Session des éditeurs commerciaux Nelson - McCain 2017 (cap.36) (11 Jun 2018, 12:30-13:30)

Teachers' Day - afternoon workshop / Journée des enseignants - atelier de l'après-midi - McCain 2021 (cap.36) (11 Jun 2018, 13:30-15:30)

M2-3 Particle Physics II (PPD) | Physique des particules II (PPD) - SUB 303 (cap.100) (11 Jun 2018, 13:30-15:00)

-Conveners: Di Sipio, Riccardo (University of Toronto (CA))

time	title	presenter
13:30	The SuperCDMS SNOLAB Dark Matter Experiment (I)	Prof. OSER, Scott (University of British Columbia)
14:00	ATLAS ITk activities at SFU, TRIUMF and UBC	GUESCINI, Francesco (TRIUMF (CA))
14:15	The HELIX Cosmic-ray Experiment (G)*	ROSIN, Thomas
14:30	Update on the KDK (40K decay) experiment	Dr DI STEFANO, Philippe (Queen's University)

M2-2 Theory, Modelling and Forecasting II (DASP) | Théorie, modélisation et prévisions II (DPAE) - McCain 2016 (cap.36) (11 Jun 2018, 13:30-14:45)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
13:30	Hydro-Quebec and Geomagnetic Disturbance : historical observations, data/forecast integration, recent real event and space weather gaps (I)	GUILLON, Sebastien (Hydro-Québec)
14:00	Improved Modelling of Shortwave Fadeout with 30 MHz riometer data	Dr FIORI, Robyn (NRCan)
14:15	Exploring the use of the Empirical Canadian High Arctic Ionospheric Model (E-CHAIM) and other empirical ionospheric electron density models at high latitudes (I)	THEMENS, David (University of New Brunswick)

M2-5 Nuclear Structure I (DNP) | Structure nucléaire (DPN) - SUB 302 (cap.40) (11 Jun 2018, 13:30-15:00)

-Conveners: Gwinner, Gerald (U. Manitoba)

time	title	presenter
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13:30	Recent mass measurements at TITAN (I)	REITER, Moritz Pascal (TITAN)
14:00	Structure of ^{188}Hg From Gamma-ray Spectroscopy With GRIFFIN (G)*	MACLEAN, A. D. (Department of Physics, University of Guelph, Guelph, Ontario)
14:15	Decay Spectroscopy of Neutron-Rich Cd Around the N = 82 Shell Closure (G)*	BERNIER, Nikita (TRIUMF)
14:30	High-Precision Half-Life Measurement for the Superalloyed $\beta^+\beta$ Emitter ^{22}Mg (G)*	DUNLOP, Michelle (University of Guelph)
14:45	Determination of proton radii of neutron rich oxygen isotopes from charge-changing cross section measurements. (G)*	KAUR, Satbir (Dalhousie University)

M2-1 Ultrafast EM Waves II: THz Science (DAMOPC/DCMMP) | Ondes EM ultrarapides II: Science des THz - SUB 307 (cap.80) (11 Jun 2018, 13:30-15:00)

-Conveners: Hall, Kimberley (Dalhousie University); Legaré, Francois (INRS-EMT)

time	title	presenter
13:30	Measurement and control of electron dynamics using THz light fields (I)	COOKE, David (McGill)
14:00	Ultrafast terahertz scanning tunneling microscopy with atomic resolution (I)	Prof. HEGMANN, Frank (University of Alberta)
14:30	Carrier Spin Relaxation in 2D Ruddlesden-Popper Perovskite Semiconductors (G)	Mr RILEY, Drew (Dalhousie)
14:45	Four-wave mixing studies of carrier dynamics in $\text{CH}_3\text{NH}_3\text{PbI}_3$ organic-inorganic Perovskite (G)	Mr MARCH, Samuel

M2-4 DPMB 101 (DPMB) | (DPMB) - SUB 224 (cap.50) (11 Jun 2018, 13:30-15:00)

-Conveners: Lin, Francis (University of Manitoba); Beaulieu, Luc (Université Laval)

time	title	presenter
13:30	The past, present and future of X-ray Computed Tomography (I)	DESPRÉS, Philippe (Université Laval)
14:15	Random walkers & electrodiffusion: A primer (I)	BERGEVIN, Christopher (York University)

M2-6 Intersections between gender inclusion and anti-racism work (CEWIP) | Intersections entre le travail qui supporte la diversité et l'anti-racisme - SUB 307 (cap.80) (11 Jun 2018, 13:45-15:00)

-Conveners: Peet, A.W. (University of Toronto)

Health Break / Pause santé - SUB - 2nd Floor Lobby | Hall 2e étage (15:00-15:30)

CAP-NSERC Liaison Cttee Mtg / Réunion du comité de liaison ACP-CRSNG - McCain 2102 (cap.36) (11 Jun 2018, 15:30-17:15)

-Conveners: Kanungo, Rituparna (Saint Mary's University)

M-MEDAL1 - CAP Teaching Medal / Médaille d'enseignement de l'ACP - Sarah Johnson, SFU - McCain Ondaatji Hall
(cap.500) (11 Jun 2018, 15:30-16:00)

-Conveners: Mitchler, Patricia (Balmoral Hall)

Travel time to technical sessions (16:00-16:15)

M3-2 General Contributions I (DASP) / Contributions générales I (DPAE) - McCain 2016 (cap.36) (11 Jun 2018, 16:15-18:00)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
16:15	Atmospheric Research in the High Arctic: The PEARL Experience (I)	DRUMMOND, James (Dalhousie University)
16:45	Insight into Global Trends in Aerosol Composition over 2005–2015 Inferred from the OMI Ultraviolet Aerosol Index (G)*	HAMMER, Melanie (Dalhousie University)
17:00	Influence of Thunderstorms on the Structure of the Ionosphere over North America	Prof. NAVA, Omar (Air Force Institute of Technology)
17:15	Coastal fog microphysics in Atlantic Canada (I)	Prof. CHANG, Rachel (Dalhousie University)
17:45	Coordinated space weather observations at the SANAE IV base in Antarctica	Dr OGUNJOBI, Olakunle (Centre for Space Research)

M3-3 General Relativity I (DTP) / Relativité générale I (DPT) - SUB 224 (cap.50) (11 Jun 2018, 16:15-18:00)

-Conveners: Paranjape, Manu (Université de Montréal)

time	title	presenter
16:15	Holography for fields with different spins in rotating black holes (I)	Prof. GHEZELBASH, Masoud (University of Saskatchewan)
16:45	Holographic Thermodynamics of Accelerating Black Holes (I)	Prof. MANN, Robert (Physics & Astronomy Dept. University of Waterloo)
17:15	Jordan frame no-hair for scalar-tensor black holes: a new proof	Prof. FARAONI, Valerio (Bishop's University)
17:30	A symmetry of Brans-Dicke gravity as a novel solution-generating technique	Dr KAZICI CIFTCI, Dilek (Department of Physics, Namik Kemal University, Tekirdag, Turkey & Department of Physics and Astronomy, Bishop's University, Canada)
17:45	Black Hole Biochemistry (G)*	Mrs MBAREK, Saoussen (University of Waterloo)

M3-4 Cold and Trapped Atoms, and Tests of Fundamental Symmetries I (DNP/DTP/PPD/DAMOPC) | Atomes froids et piégés, et tests de symétries fondamentales I (DPN/DPT/PPD/DPAMPC) - McCain Scotiabank Auditorium (cap.250) (11 Jun 2018, 16:15-18:00)

-Conveners: Friesen, Tim (TRIUMF (CA))

time	title	presenter
16:15	Final results from the QWeak experiment: The Weak charge of the proton and new mass scale limits on possible physics beyond the Standard Model. (I)	Prof. GERICKE, Michael (University of Manitoba)
16:45	MUSE-ing about the proton radius puzzle (I)	DOWNIE, Evangeline J. (The George Washington University)
17:15	Measurement of the 1S-2S Transition in Antihydrogen	OLIN, Art (TRIUMF (CA))
17:30	Precision antihydrogen gravitational mass measurement in ALPHA-g	Dr SO, Chukman (University of Calgary, Canada)

M3-6 Particle Physics III (PPD) | Physique des particules III (PPD) - Dunn 101 (cap.82) (11 Jun 2018, 16:15-18:00)

-Conveners: Guescini, Francesco (TRIUMF (CA))

time	title	presenter
16:15	Searches for new physics at ATLAS (I)	PACHAL, Katherine (Simon Fraser University (CA))
16:45	The Status of the PICO Dark Matter Search Experiment (I)	Prof. NOBLE, Anthony (Queen's University)
17:15	Analysis of CDMSlite Run 3 (G)*	Mr UNDERWOOD, Ryan (Queen's University)
17:30	Cosmogenic Production Rates in Germanium with CDMSlite Run 2 (G)*	Ms FASCIONE, Eleanor (Queen's University)
17:45	Compensation of Magnetic Fields at the TRIUMF nEDM Experiment (G)*	Mr AHMED, Shomi (University of Manitoba/ U of Winnipeg/ TUCAN Collaboration)

M3-1 Stochastic Biology (DPMB) | Biologie stochastique (DPMB) - SUB 302 (cap.40) (11 Jun 2018, 16:15-18:00)

-Conveners: Rutenberg, Andrew (Dalhousie University)

time	title	presenter
16:15	Stochastic models in quantitative biology: how they fail and why we need them (I)	Dr HILFINGER, Andreas (University of Toronto Mississauga)
16:45	Spontaneous development of drug resistance caused by a common gene regulatory network (I)	KAERN, Mads (University of Ottawa)
17:15	Probing the network structure of health deficits in human aging (G)	FARRELL, Spencer (Dalhousie University)
17:30	Soma-dendrite interaction enhances noisy signal encoding	Prof. LONGTIN, Andre (University of Ottawa)

M3-5 Magnetism (DCMMP) | Magnétisme (DPMCM) - SUB 303 (cap.100) (11 Jun 2018, 16:15-18:00)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
16:15	Confinement of magnetic monopole quasiparticles in a quantum spin ice (I)	Prof. RYAN WIEBE, Christopher
16:45	Neutron scattering study of skyrmions in MnSi thin films	Prof. MONCHESKY, Theodore (Dalhousie University)
17:00	Ultralow Thermal Conductivity and Novel Thermoelectric Materials	Dr PÖHLS, Jan-Hendrik (University of Alberta)
17:15	Reversibility of Magnetic Behavior in High Entropy Oxides (G)	Ms AFSHARVOSOUGHI, Tahereh (Brock University)
17:30	Frustrated magnetic pyrochlore thin films (I)	GINGRAS, Michel (University of Waterloo)

Cafeteria open for dinner, if not signed up for BBO (17h00-19h30: \$14) / Cafeteria ouvert pour souper, si vous n'êtes pas inscrit au BBO (17h00-19h30: 14 \$) - Howe Hall Dining Room (17:00-19:30)

Welcome BBO Reception | Réception d'accueil avec BBO - Studley Quad (11 Jun 2018, 18:00-19:30)

Travel time to Public Lecture | Transfert vers la conférence plénière (19:30-19:45)

Herzberg Memorial Public Lecture | Conférence commémorative publique Herzberg (Nergis Mavalvala, MIT) - Rebecca Cohn Theatre, Dalhousie Arts Centre (11 Jun 2018, 19:45-20:45)

-Conveners: Pistorius, Stephen (CCMB, University of Manitoba)

time	title	presenter
19:45	The Warped Universe: the one hundred year quest to discover Einstein's gravitational waves	Prof. MAVALVALA, Nergis (Massachusetts Institute of Technology)

Post-talk Reception | Réception après la conférence - Rebecca Cohn Theatre, Dalhousie Arts Centre (11 Jun 2018, 20:45-21:45)

Tuesday 12 June 2018

Cafeteria open for breakfast (7-10 am: \$8.50) / Cafeteria ouvert pour déjeuner (07h00-10h00: 8,50 \$) - Howe Hall Dining Room (07:00-10:00)

Science Policy Committee Breakfast Meeting / Réunion-déjeuner du Comité de politique scientifique - McCain 2021 (cap.36) (12 Jun 2018, 07:30-09:00)

-Conveners: Poduska, Kristin (Memorial University of Newfoundland)

T1-1 Energy Storage 1 (DCMMP) | Accumulation d'énergie 1 (DPMCM) - SUB 303 (cap.100) (12 Jun 2018, 08:00-09:00)

-Conveners: Dahn, Jeff (Dalhousie University)

time	title	presenter
08:00	Extracting State Information from Batteries with Electrochemical Acoustic Signal Interpretation (I)	STEINGART, Dan (Princeton University)
08:30	Ultrafast time resolution in AFM measurements of charge transport in sustainable energy materials (I)	Prof. GRUTTER, Peter (Dep. of Physics, McGill University)

T1-4 Mathematical Physics (DTP) | Physique mathématique (DPT) - McCain 2017 (cap.36) (12 Jun 2018, 08:00-09:00)

-Conveners: Hubert de Guise

time	title	presenter
08:00	An Analytic Approach for the Energy Eigenvalues Solutions in a Double-Well Potential	Prof. VALLURI, Sree Ram (University of Western Ontario)
08:15	A path to correspondence rules for SU3 Wigner function (G)*	Mr NUNES MARTINS, Alex Clesio (Graduate Student)
08:30	Investigating a stellar system interior with an erfc metric.	Prof. PLAMONDON, Réjean (École Polytechnique de Montréal)
08:45	Optimised explicit finite difference scheme for the KdV equation	Dr JEJENIWA, Olaoluwa (The Kola Scholar- Centre for Higher Education Research (CHER), South Africa.)

T1-7 Workshop: Preparing Your Teaching Dossier (DPE) | Atelier: Préparation de votre dossier d'enseignement (DEP) - McCain Scotiabank Auditorium (cap.250) (12 Jun 2018, 08:00-09:00)

-Conveners: Ahrensmeier, Daria (Simon Fraser University)

time	title	presenter
08:00	Teaching Dossier Workshop	AHRENSMEIER, Daria (Simon Fraser University)

T1-3 Ground-based and In Situ Observations I (DASP) | Observations terrestres et In situ I (DPAE) - McCain 2016 (cap.36)
(12 Jun 2018, 08:00-09:00)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
08:00	Unique local results from a polar cap event with an extremely strong electric field of long duration.	ST-MAURICE, Jean-Pierre (University of Saskatchewan)
08:15	Dayside reverse plasma flows for northward IMF as seen by the SuperDARN and RISR-C radars (G)*	Mr BANKOLE, Peter (U of Saskatchewan)
08:30	Science Effects of Observing Affects of Langmuir Probe Coatings on Swarm (G)*	Ms QUINN, Candice (University of Calgary)

T1-2 Special CAP Plasma Physics Session: in Memory of Prof. Akira Hirose (DPP) | Session spéciale en physique des plasmas: À la mémoire du prof. Akira Hirose (DPP) - SUB 307 (cap.80) (12 Jun 2018, 08:00-09:00)

-Conveners: Bradley, Michael (University of Saskatchewan)

time	title	presenter
08:00	Simulation-based interpretation of Langmuir probe measurements (I)	MARCHAND, Richard (University of Alberta)
08:30	Fueling and Momentum Injection into the STOR-M tokamak (I)	XIAO, Chijin (University of Saskatchewan)

T1-6 Topics in medical physics and biophysics (DPMB) / Sujets en physique médicale et biophysique (DPMB) - SUB 302 (cap.40) (12 Jun 2018, 08:00-09:00)

-Conveners: Beaulieu, Luc (Université Laval)

time	title	presenter
08:00	Simulation of Induced Eddy Current and Heat Dissipation of MRI-compatible PET Detector due to an MRI Varying Magnetic Field (G)*	Ms MOGHADAM, Narjes (universite de Sherbrooke)
08:15	Organic semiconductor radiation dosimeters	VALITOVA, Irina (Department of Physics & Atmospheric Science, Dalhousie University)
08:30	Copper stable isotope redistribution is regulated by gut bacteria in the gastrointestinal tract of mice (G)	MILLER, Kerri (University of Calgary)
08:45	Competition During Reprogramming Gives Rise to Deterministically Elite Clones. (G)*	MCGIBBON-GARDNER, Sophie (University of Toronto)

T1-5 Quirks and Quarks (PPD/DTP) I « Quirks » et quarks (PPD/DTP) - SUB 224 (cap.50) (12 Jun 2018, 08:00-09:00)

-Conveners: Kopper, Claudio (University of Alberta)

time	title	presenter
08:00	AdS/QCD predictions for B decay to K^{**} and two neutrinos	AHMADY, Mohammad (Mount Allison University)

08:15	QCD-constrained dynamical spin effects in the pion.	SANDAPEN, Ruben (Acadia University)
08:30	Masses of Light Quarkonium 0^{+-} Hybrids from Gaussian Sum-Rules	Dr HARNETT, Derek (University of the Fraser Valley)

Exhibit booths open 08:30-16:00 | Salle d'exposition ouverte de 08h30 à 16h00 - SUB McInnes Hall (12 Jun 2018, 08:30-16:00)

Travel time to Plenary Lecture | Transfert vers la conférence plénière (09:00-09:15)

T-Plen-1 - Plenary Session - (J.Dutcher, Guelph U.) | Session plénière (J. Dutcher, Guelph U.) - McCain Ondaatji Hall (cap.500) (12 Jun 2018, 09:15-09:45)

time	title	presenter
09:15	Soft Colloids, Hard Science and the Path from Discovery to Commercialization	DUTCHER, John

Health Break (with exhibitors) / Pause santé (avec exposants) - SUB McInnes Hall (09:45-10:15)

NSERC Presentation | Présentation du CRSNG - McCain Ondaatji Hall (cap.500) (12 Jun 2018, 10:15-11:15)

Cafeteria open for lunch (11h00-14h00: \$10) / Cafétéria ouvert pour dîner (11h00-14h00: 10 \$) - Howe Hall Dining Room (11:00-14:00)

Travel time to technical sessions | Transfert vers les sessions techniques (11:15-11:30)

T2-6 Experimental Techniques (DCMMP) | Techniques expérimentales (DPMCM) - SUB 224 (cap.50) (12 Jun 2018, 11:30-12:30)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
11:30	quasiparticle research on 3d material using ARPES	CUI, xiaoyu (Canadian Light Source)
11:45	Design Study for CLS 2.0	Dr BOLAND, Mark (CLS)
12:00	Submolecular scale mapping of the Hubbard U	Prof. BURKE, Sarah (University of British Columbia)
12:15	MacSANS: Small Angle Neutron Scattering for Nanostructured Materials at McMaster University	CLANCY, Patrick (McMaster University)

T2-4 Medical Imaging 1 (DPMB) | Imagerie médicales 1 (DPMB) - McCain 2016 (cap.36) (12 Jun 2018, 11:30-12:30)

-Conveners: Després, Philippe (Université Laval)

time	title	presenter
11:30	Range and dose verification for proton therapy using using gamma spectroscopy of contrast agents. (G)*	KASANDA, Eva (University of Guelph)
11:45	Plastic scintillators as in-vivo dosimeters for photons and electrons in external beam radiation therapy: Angular dependence of response (G)	AVILA, Ethan
12:00	Multi-Modality Comparison of Wrist and Ankle joints: A Feasibility Study	TESSIER, David (The University of Western Ontario)
12:15	Laplacian-Inspired Design of a Highly-Homogeneous, RF Shielded Magnet for Low-Field TRASE MRI (G)*	SMITH, K. M. (University of Manitoba)

T2-3 Ground-based and in Situ Observations II (DASP) | Observations terrestres et In situ II (DPAE) - SUB 307 (cap.80) (12 Jun 2018, 11:30-12:30)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
11:30	STEVE, the mysterious subauroral optical structure (I)	GALLARDO-LACOURT, Bea (University of Calgary)
12:00	Science Highlights from the Swarm Electric Field Instruments	Prof. KNUDSEN, David (University of Calgary)
12:15	Assessment of Swarm ionospheric flow measurements by inter-satellite comparisons	BURCHILL, Johnathan (University of Calgary)

T2-5 Instrumentation and Imaging (DAPI) | Instrumentation et imagerie (DPAI) - McCain 2017 (cap.36) (12 Jun 2018, 11:30-12:30)

-Conveners: Michaelian, Kirk (Natural Resources Canada)

time	title	presenter
11:30	Gas Flow Velocity Field and Turbulent Anisotropy Measurements using Magnetic Resonance Imaging (G)*	GAUTHIER, Amy-Rae (University of New Brunswick)
11:45	A New Pathway for Robust High-Resolution Imaging and Quantitative Force Spectroscopy in Vacuum: Tuned-Oscillator Atomic Force Microscopy	Dr DAGDEVIREN, Omur E. (McGill University)
12:00	Multi-Wavelength Light Trapping Using Width-Graded Plasmonic Nanogratings (G)*	DIXON, Katelyn (University of Toronto)
12:15	On an alternative neutron source	Dr HARRISSON, Genevieve (Canadian Nuclear Laboratories)

T2-1 Ultrafast EM waves III: Quantum Control (DAMOPC/DCMMP) | Ondes EM ultrarapides III: Contrôle quantique (DPAMPC/DPMCM) - SUB 303 (cap.100) (12 Jun 2018, 11:30-12:30)

-Conveners: Hall, Kimberley (Dalhousie University); Legare, Francois (INRS-EMT)

time	title	presenter
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11:30	Room-temperature quantum fluids of light (I)	KENA-COHEN, Stéphane (Polytechnique Montreal)
12:00	Multidimensional coherent spectroscopy of semiconductor excitons, biexcitons and polaritons (I)	Prof. BRISTOW, Alan (West Virginia University)

T2-2 Round-table Discussion: How can we measure good teaching? (DPE) | Table ronde: Comment mesurer le bon enseignement? (DEP) - McCain Scotiabank Auditorium (cap.250) (12 Jun 2018, 11:30-12:30)

-Conveners: Patricia Mitchler

time	title	presenter
11:30	Roundtable Discussion: How can we measure good teaching? (I)	AHRENSMEIER, Daria (Simon Fraser University)

T2-7 Testing Fundamental Symmetries II (DTP/PPD/DNP) | Tests de symétries fondamentales II (DPT/PPD/DPN) - SUB 302 (cap.40) (12 Jun 2018, 11:30-12:30)

-Conveners: Dick, Rainer (University of Saskatchewan)

time	title	presenter
11:30	Hadronic effects in parity-violating electron-proton scattering at low energies (I)	Prof. BLUNDEN, Peter (University of Manitoba)
12:00	Particle Physics at the Precision Frontier (I)	Prof. ALEKSEJEVS, Aleksandrs (Grenfell Campus of Memorial University of Newfoundland)

New Faculty Lunch Meeting with NSERC | Dîner-rencontre des nouveaux professeurs avec le CRSNG - SUB 302 (cap.40) (12 Jun 2018, 12:30-13:30)

-Conveners: Strickland, Donna (University of Waterloo)

DNP Business Meeting | Réunion DPN - McCain 2102 (cap.36) (12 Jun 2018, 12:30-13:30)

-Conveners: Gwinner, Gerald (University of Manitoba)

DPP Annual Meeting / Assemblée annuelle DPP - McCain 2176 (cap.36) (12 Jun 2018, 12:30-13:30)

-Conveners: Bradley, Michael (University of Saskatchewan)

DPMB Annual Meeting / Assemblée annuelle DPMB - McCain 2017 (cap.36) (12 Jun 2018, 12:30-13:30)

-Conveners: Beaulieu, Luc (Université Laval)

DASP Business Meeting / Réunion DPAE - McCain 2021 (cap.36) (12 Jun 2018, 12:30-13:30)

-Conveners: Burchill, Johnathan (University of Calgary)

DAMOPC Annual Meeting / Assemblée annuelle DPAMC - McCain 2016 (cap.36) (12 Jun 2018, 12:30-13:30)

-Conveners: Marzlin, Karl-Peter (St. Francis Xavier University)

Defining CAP's Outreach Goals: Outreach "tête à tête" - SUB 224 (cap.50) (12 Jun 2018, 12:30-13:30)

-Conveners: Pavan, Marcello (TRIUMF)

Student Seminar: Physicists in Industry | Séminaire d'étudiants: Les physiciens dans l'industrie - SUB 307 (cap.80) (12 Jun 2018, 12:30-13:30)

-Conveners: D'Souza, Ian (Honeywell Aerospace)

T3-3 Particle Physics IV (PPD) | Physique des particules IV (PPD) - Dunn 135 (cap.82) (12 Jun 2018, 13:30-15:00)

-Conveners: Scott Oser

time	title	presenter
13:30	High mass Diboson Resonances with the ATLAS Detector (G)*	LES, Robert (University of Toronto (CA))
13:45	Search for new dark sector particles in Higgs boson decays with the ATLAS detector at the LHC (G)*	CHIU, Yu Him Justin (University of Victoria (CA))
14:00	A Novel Approach to Account for the Fano Factor (G)*	Mr DURNFORD, Daniel (Queen's University)

T3-6 Developing Scientific Practices in the Laboratory (DPE) | Exercice de la science en laboratoire (DEP) - SUB 303 (cap.100) (12 Jun 2018, 13:30-14:45)

-Conveners: Williams, Martin (University of Guelph)

time	title	presenter
13:30	Evaluation of Traditional Labs As Effective Content Delivery In A High-Enrollment IPLS Course. (G)*	STEFFLER, Matt (University of Guelph)
13:45	Engaging Students in Authentic Scientific Practices in Physics Lab Courses (I)	Dr LEWANDOWSKI, Heather (University of Colorado)
14:15	Custom built laser instrumentation laboratories for physics and chemistry courses	TOKARZ, Danielle (Saint Mary's University)
14:30	QExpy: A python package for undergraduate laboratories	MARTIN, Ryan (Queen's University)

T3-7 Surface Sciences (DSS) | Science des surfaces (DSS) - SUB 302 (cap.40) (12 Jun 2018, 13:30-15:00)

-Conveners: Patitsas, Steve (University of Lethbridge)

time	title	presenter
13:30	Hydrogen Generation and Co-deposition in Electroless Copper Plating	SHARMA, Tanu (Mount Allison University)

13:45	Water-repellent coatings via electrodeposition	PODUSKA, Kristin (Memorial University of Newfoundland)
14:00	Atomically Resolved Dynamics of a Charge Density Wave (I)	BURGESS, Jacob (University of Manitoba)
14:30	Preferred orientation of electroplated copper films on roll-annealed copper substrates	BROWN, Delilah (Mount Allison University)
14:45	Exploring surface phase, morphology, and charge distribution transitions of perovskites: a case study on SrTiO ₃	Dr DAGDEVIREN, Omur E. (McGill University)

T3-2 Thin Films, Magnetism and Solar Cells (DCMMP) | Films minces, magnétisme et piles solaires (DPMCM) - Dunn 101
(cap.82) (12 Jun 2018, 13:30-14:30)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
13:30	Dimensionality and length scale of defects in epitaxial SnTe topological crystalline insulator films	Dr DAGDEVIREN, Omur E. (McGill University)
13:45	The 2D percolation transition in Fe/W(110) ultrathin films: Measurements of the phase transition line and critical exponent at finite temperature	VENUS, David (McMaster University)
14:00	Optical investigation of low-dimensional purple and blue bronzes (G)	Mr AHMADI, mohammad
14:15	Solar cells comparison in high altitude. (U)*	Mr LINDEMANN, Addison (Renert School) Mr URSENBACH, Adam (Renert School) Mr WOLFMAN, Benjamin (Renert School)

T3-1 Photonics (DAMOPC / DCMMP) | Photoniques (DPAMPC / DPMCM) - McCain Scotiabank Auditorium (cap.250)
(12 Jun 2018, 13:30-15:00)

-Conveners: Marzlin, Karl-Peter (St. Francis Xavier University)

time	title	presenter
13:30	On-chip Fabry-Perot microcavity arrays for cavity QED (I)	DECORBY, Ray (University of Alberta)
14:00	Coupled spatial and spectral properties of a spectrally broadband photon pair source in bulk PPLN (G)*	Mrs GUNTHER, Aimee (Institute for Quantum Computing; Department of Physics and Astronomy, University of Waterloo)
14:15	Improving the quality of heralded single-photon sources with cascaded downconversion	HAMEL, Deny R (Université de Moncton)
14:30	Photonic device for the detection of trace gases (G)	Mr TREVISANUTTO, Joshua (Lakehead University)
14:45	An enhanced Kerr non-linearity using Rydberg electromagnetically induced transparency outside the blockade regime (G)	SINCLAIR, Josiah (University of Toronto)

T3-4 Gravity and Cosmology (DTP/DHP) | Gravité et cosmologie (DPT/DHP) - SUB 307 (cap.80) (12 Jun 2018, 13:30-15:00)

-Conveners: Faraoni, Valerio (Bishop's University)

time	title	presenter
13:30	What we have learned from the Cosmic Microwave Background (I)	Prof. HALPERN, Mark (UBC)
14:00	The CMB and the early universe (I)	Prof. WILSON-EWING, Edward (University of New Brunswick)
14:30	Bianchi IX dynamics in dust time (G)	ALI, Masooma (University of New Brunswick)
14:45	Is there a cosmological constant problem? (G)*	HASSAN, Syed Moez (University of New Brunswick)

T3-5 Hadronic Physics (DNP) | Physique hadronique (DPN) - SUB 224 (cap.50) (12 Jun 2018, 13:30-15:00)

-Conveners: Hornidge, David (Mount Allison University)

time	title	presenter
13:30	Recent Results from GlueX (I)	STEVENS, Justin (College of William and Mary)
14:00	Blinded by the Light: Calibration of a Cherenkov Detector (G)*	AMBROSE, Ryan (University of Regina)
14:15	Exclusive Backward-Angle Meson Electroproduction -- Unique access to ρ^0 -channel physics	HUBER, Garth (University of Regina)
14:30	SoLID Heavy Gas Cherenkov Prototype (G)*	EVANS, Rory (University of Regina)
14:45	Geochemical measurement of the half-life for the double-beta decay of ^{96}Zr (G)*	MAYER, Adam (University of Calgary)

Health Break (with exhibitors) / Pause santé (avec exposants) - SUB McInnes Hall (15:00-15:30)
T4-6 DASP General Contributions II (DASP) | DPAE: contributions générales II (DPAE) - McCain 2017 (cap.36) (12 Jun 2018, 15:30-16:45)

-Conveners: Burchill, Johnathan (University of Calgary)

time	title	presenter
15:30	Observing the Dynamics of the Martian Atmosphere (I)	WARD, William (University of New Brunswick)
16:00	WaMI: The Waves Michelson Interferometer (G)*	KRISTOFFERSEN, Samuel
16:15	Search for Vertical Stratification of Element Abundances in Chemically Peculiar stars	Prof. KHALACK, Viktor (Université de Moncton)
16:30	Search for Vertical Abundance Stratification of Chemical Elements in HD176232 (U)*	PERRON-CORMIER, Mathieu (Université de Moncton)

T4-4 Films, surfaces and composites (DCMMP) | Films, surfaces et composites (DPMCM) - Dunn 101 (cap.82) (12 Jun 2018, 15:30-16:45)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
15:30	Structure and Properties of Exfoliated MoS ₂ -Polyaniline Nanocomposites	Dr DAHN, Douglas (Department of Physics, U. Prince Edward Island)
15:45	Improving the corrosion resistance of SS 316 (G)	Mr JUCKES, Stefan (Dalhousie University)
16:00	Imaging and Preventing the Corrosion of Nitinol (G)	Mr LEGALLAIS, Garrett (Dalhousie University)
16:15	Wrinkling and Buckling in Freestanding Bilayer Films (G)*	Mr NIVEN, John (McMaster University)
16:30	Unusual resistive hysteresis cycles in VO ₂ thin films on quartz substrates	ABDEL SAMAD, Bassel (Université de Moncton)

T4-8 Novel Approaches to Promoting Engagement in Physics Classes (DPE) | Nouvelles approches pour promouvoir l'engagement dans les classes de physique (DEP) - McCain Scotiank Auditorium (cap.250) (12 Jun 2018, 15:30-16:45)

-Conveners: Antimirova, Tetyana (Ryerson University)

time	title	presenter
15:30	Ice Hockey: a Sport Full of Physics (I)	Prof. HACHÉ, Alain (Université de Moncton)
16:00	Reflections on implementing physclips and physlets in undergraduate physics courses	Prof. PREDOI-CROSS, Adriana (512 Silkstone Crescent West, Lethbridge AB T1J4C1)
16:15	Supplementary Video Tutorials for Introductory Physics Courses	ANTIMIROVA, Tetyana (Ryerson University)
16:30	ChromaStar: A model star and exo-planet for the classroom	Dr SHORT, Ian (Saint Mary's University)

T4-7 Physics of Biosensing (DPMB) | Physique de la biodétection (DPMB) - SUB 224 (cap.50) (12 Jun 2018, 15:30-16:45)

-Conveners: Lin, Francis (University of Manitoba)

time	title	presenter
15:30	Materials Innovations for Enhancing the Limit of Detection of Biosensors (I)	SOLEYMANI, Leyla
16:00	² H NMR Studies of Bacterial Membranes Disruption Resulting from the Interaction with Antimicrobial Peptides (G)*	SANTISTEBAN, Nury P. (Memorial University of Newfoundland)
16:15	Laser-Induced Breakdown Spectroscopy as a Rapid Diagnostic Tool for Bacterial Detection and Discrimination (G)*	Ms PAULICK, Alexandra (University of Windsor)
16:30	Single-Particle Tracking Reveals Diverse Diffusion Regimes of Individual M2 Receptors and Gi Proteins in Live Cells (G)	LI, Yuchong (University of Toronto Mississauga)

T4-5 Neutrinoless Double Beta Decay (DNP) | Double désintégration bêta sans neutrinos (DPN) - SUB 302 (cap.40) (12 Jun 2018, 15:30-16:45)

-Conveners: Gwinner, Gerald (University of Manitoba)

time	title	presenter
15:30	Neutrinoless double beta decay search using liquid xenon (I)	Prof. LICCIARDI, Caio (Laurentian)
16:00	nEXO: a tonne-scale next-generation double-beta decay experiment	Prof. MACLELLAN, Ryan (University of South Dakota)
16:15	Hyperfine spectroscopy (and more) of antihydrogen (I)	Prof. FRIESEN, Tim (University of Calgary)

T4-2 Quantum Optics and Trapped Ions (DAMOPC) | Optique quantique et ions piégés (DPAMPC) - SUB 303 (cap.100) (12 Jun 2018, 15:30-16:45)**

-Conveners: DeCorby, Ray (University of Alberta)

time	title	presenter
15:30	Schrödinger cats in quantum optics (I)	Dr LVOVSKY, Alexander (University of Calgary, Russian Quantum Center)
16:00	How to simulate models from high energy physics in atomic physics experiments (I)	Prof. MUSCHIK, Christine (IQC - Institute for Quantum Computing)
16:30	Improved estimates of the collisional frequency shift for a trapped-ion atomic clock (G)*	DAVIS, Jack (University of Toronto)

T4-3 Particle Physics V (PPD) | Physique des particules V (PPD) - Dunn 135 (cap.82) (12 Jun 2018, 15:30-16:45)

-Conveners: Pachal, Katherine (Simon Fraser University (CA))

time	title	presenter
15:30	Status of the Belle II Experiment on the SuperKEKB Collider (I)	WARBURTON, Andreas (McGill University, (CA))
16:00	Pulse Shape Discrimination Studies with CsI(Tl) for Improving High Energy Hadron Identification (G)*	LONGO, Savino (University of Victoria)
16:15	Emerging Triggers: Creating a Safe Space for Dark Matter (G)*	Mr LINTHORNE, Dylan (Carleton University)
16:30	Measurement of Z bosons produced in association with jets via vector boson fusion at 13 TeV with the ATLAS detector (G)*	WEBER, Stephen (Carleton University (CA))

T4-1 Energy Storage 2 (DCMMP) | Accumulation 2 (DPMCM) - SUB 307 (cap.80) (12 Jun 2018, 15:30-16:45)

-Conveners: Genovese, Matthew (Dalhousie University)

time	title	presenter
15:30	Development of Utility Friendly Safe Olivine Based ESS in Esstalion Technologies. (I)	Dr ZAGHIB, Karim (HydroQuebec)

16:00	Impact of aluminum substitution on the electronic and thermodynamic properties of NCA materials for lithium-ion batteries using first-principles methods (G)	CORMIER, Marc M. E. (Department of Physics and Atmospheric Science, Dalhousie University)
16:15	Synthesis of Single Crystal LiNi _{0.6} Mn _{0.2} Co _{0.2} O ₂ with Enhanced Electrochemical Performance for Lithium Ion Batteries (G)	LI, Hongyang (Dalhousie)
16:30	Density Functional Theory Studies on the Role of Electrolyte Additives in Lithium-ion Batteries	HALL, David (Dalhousie University)

Travel time to Plenary Lecture I Transfert vers la conférence plénière (16:45-17:00)

T-PLEN Plenary Session / Session plénière - Juan Maldacena, Institute for Advanced Study at Princeton - McCain Ondaatji Hall (cap.500) (12 Jun 2018, 17:00-17:45)

-Conveners: Edery, Ariel (Bishop's University)

time	title	presenter
17:00	Black holes, wormholes and entangled states	Prof. MALDACENA, Juan (Institute for Advanced Studies in Princeton, NJ)

Cafeteria open for dinner (17h00-19h30; \$14) / Cafétéria ouvert pour souper (17h00-19h30; 14 \$) - Howe Hall Dining Room (17:00-19:30)

Travel time to poster session I Transfert vers la session d'affiches (17:45-18:00)

DAPI Poster Session & Finals: Poster Competition and Mingle Session with Industrial Partners/Employees (3) Session d'affiches DPIA et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (3) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
POS-41 Characterizing dynamic wetting behaviour on randomly roughened surfaces	ELMS, Justin	
POS-42 Evaluation of approaches to reduce a characteristic measurement time in MRI of sprays	AHMADI, Shahla (university of New Brunswick)	
POS-43 Experimental Classification of Unknown Tripartite Entanglement on Spin Ensemble using NMR	Mr SINGH, Amandeep (Indian Institute of Science Education and Research Mohali)	

DCMMP Poster Session & Finals: Poster Competition and Mingle Session with Industry Partners (28) / Employers / Session d'affiches DPMCM et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (28) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
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POS-13 Failure-mode history-dependence in single crystal NMC532 / graphite Li ion cells	HARLOW, Jessie	
POS-14 Metallic Li and Na Anodes for Next Generation Li and Na Metal Batteries	ZHAO, Yang (Department of Mechanical and Materials Engineering, University of Western Ontario)	
POS-15 Digital photocorrosion of GaAs/AlGaAs: a quest for fabrication of defect-free III-V nanostructures	Mr AZIZIYAN, Mohammad Reza (Université de Sherbrooke)	
POS-16 Using Atomic Force Microscopy to Characterize Energy Storage Materials	Mr MASCARO, Aaron (McGill University)	
POS-17 Analysis of “Rollover Failure” of Lithium-ion Cells	Dr MA, Xiaowei (Dalhousie University) Prof. DAHN, Jeff (Dalhousie University)	
POS-18 Study of Al₂O₃ Coated Positive Electrode Materials	MURRAY, Vivian (Department of Process Engineering and Applied Science, Dalhousie University)	
POS-19 Carbon allotropes grafted with poly (pyrrole) derivatives via living radical polymerizations: electrochemical analysis of nano-composites for energy storage	Dr IGNASZAK, Anna (University of New Brunswick)	
POS-20 Structural, Electrochemical and Thermal Properties of Nickel-rich Li_{Nix}MnyCo_zO₂ Materials	ZHANG, Ning (Dalhousie University)	
POS-21 Revealing the unwanted reactions in lithium-ion cells with isothermal microcalorimetry	Mr GLAZIER, Stephen L. (Dalhousie University)	
POS-22 What is the use of a lithium-ion battery that has zero volts?	LIU, Yulong (Dalhousie University)	
POS-23 Li-ion Differential Thermal Analysis; an in-situ method for studying changes to electrolyte	BAUER, Michael (Department of Physics and Atmospheric Science, Dalhousie University, Halifax B3H 3J5, Canada)	
POS-24 Applying State-of-the-art Machine Learning Methods to Analyse Electrolyte composition of Lithium-ion Cells using Fourier-Transform Infrared Spectroscopy	BUTEAU, Samuel (Dalhousie University)	
POS-25 Impedance Growth in Lithium-Ion Pouch Cells	WEBER, Rochelle (Materials Engineering Program, Dept. of Mechanical Engineering, Dalhousie University, Halifax, NS B3H 4R2, Canada)	
POS-26 The effect of 1,3-Dimethyl-2-imidazolidinone (DMI) as an additive in Lithium-ion cells.	Mr GAUTHIER, Roby (Dalhousie University)	
POS-28 3D-to-2D transition of phonon transport in nanomaterials: a first-principles analysis	STRONGMAN, Patrick (Dalhousie University)	
POS-29 Computational and Experimental Investigations of Inverse Perovskites as Thermoelectric Materials	Dr PÖHLS, Jan-Hendrik (University of Alberta)	

POS-30 Photoacoustic FTIR as an isotopic analysis technique	CAMPBELL, Stephen (Memorial University of Newfoundland)	
POS-31 Exploration of 2D materials for high-efficiency thermoelectric conversion	Mr RUDDERHAM, Cameron (Dalhousie University)	
POS-32 Assessment of the Performance of Four Dispersion-Corrected DFT Methods Using Optoelectronic Properties and Binding Energies of Organic Monomer-Fullerene Pairs	Prof. LAGOWSKI, Jolanta B. (Memorial University)	
POS-33 Standing helimagnons in MnSi thin films	Mr ILOW, Nicholas (Dalhousie University)	
POS-34 Synthesis of inverse tetragonal Heusler alloys	Mr KALLIECHARAN, David (Dalhousie University) Mr MCCOOMBS, Jason (Dalhousie University)	
POS-35 Tracking Liquid Electrolyte Changes Throughout Lithium-ion Cell Lifetime	Ms THOMPSON, Lauren (Dalhousie University Dept. of Chemistry)	
POS-36 Vein glorious graphite for Li-ion Batteries	Dr BEATTIE, Shane (Elcora Advanced Materials)	
POS-37 Effect of Addition of Lanthanum on the Hydrogen Storage Properties of TiFe Alloy	Mr ALAM, Md Meraj (Université du Québec à Trois-Rivières & Indian Institute of Technology Bombay)	
POS-38 Investigating the Removal of Layered Double Hydroxides in [Ni_{0.80}Co_{0.15}]_{0.95-x}Al_{0.05+x}(OH)₂ (x = 0, 0.05) Prepared by Coprecipitation	LIU, Aaron (Dalhousie University)	
POS-39 An Organic Anode Enabling High Concentration and Cell Potential of An All-Organic Redox Flow Battery	Mr ALKHAYRI, Fahad (Department of Chemistry, University of New Brunswick)	
POS-40 Propriétés thermochromes des couches minces de VO₂ et de VO₂ dopées de tungstène (W) par une nouvelle technique.	KOUGBLENOU, Komi (Etudiant)	
POS-58 Study of a field-tunable colloid-polymer solution (SMC Poster)	SEMWAL, Shivani (Memorial University)	

DAMOPC Poster Session & Finals: Poster Competition and Mingle Session with Industry Partners (8) / Employers | Session d'affiches DPAMPC et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (8) - SUB
McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
POS-1 Investigation of Emission Enhancement in Dual-Pulse and Resonance-Enhanced Laser-Induced Breakdown Spectroscopy	VALENTE, Robert (University of Windsor) Mr DUBOVAN, Paul (University of Windsor)	

POS-2 Electron Impact Excitation of Adenine in the VUV.	Mr TROCCHI, Josh (University of Windsor) Mr DECH, Jeffrey (University of Windsor)	
POS-3 Studying Medium-Sized Molecules in the Far-Infrared Spectral Region with the Canadian Light Source	Mr ZARRINGHALAM, Hanif (Physics Department, University of New Brunswick)	
POS-4 Relativistic corrections to nonrelativistic electric dipole transitions in heliumlike atoms	Mr VENN, Daniel (University of Windsor)	
POS-5 Modeling and Characterizing Polarization Distortion for Real-world Quantum Key Distribution Implementations	SLAMAN, Sebastian (University of Waterloo)	
POS-6 Second-harmonic generation in highly dispersive media: Comparison of a new formalism with experimental data	BOURQUE, Bobby (Université de Moncton)	
POS-56 Contrôle des propriétés d'émission des lasers à l'aide de couches minces nanostructurées.	Mr AMOUZOU, Koffi Novignon (Université de Moncton)	
POS-62 Waveguide QED toolboxes for synthetic quantum matter with neutral atoms	Dr DONG, Ying (University of Waterloo)	

DPMB Poster Session & Finals: Poster competition and Mingle session with Industrial partners/employers (9) | Session d'affiches DPMB et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (9) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
POS-50 Spectroscopic Techniques in Determining the Elemental Composition of Fish Otoliths	Mr HEATH, Christopher (University of Windsor)	
POS-51 Bacterial Mounting and Concentration Techniques to Translate Laser-Induced Breakdown Spectroscopy into a Clinical Setting	Ms PAULICK, Alexandra (University of Windsor)	
POS-52 Calibration of a Nonlinear Optical Polarimeter	Ms BUDDEN, Katherine (Saint Mary's University)	
POS-53 Effects of native state topology vs. sequence in protein folding	WALLIN, Stefan (Memorial University of Newfoundland)	
POS-54 Morphological changes of collagen fibrils adsorbed to a strained elastic substrate	PEACOCK, Chris (Dalhousie University)	
POS-55 Response of an Organic Photodiode to a Kilovoltage Photon Beam under Different Bias Conditions	HUPMAN, Michael (Department of Physics & Atmospheric Science, Dalhousie University)	
POS-59 Effect of diffusion of cell lysate in a model polymer, via pulse gradient NMR (SMC Poster)	TROSEL, Yanitza (Memorial University of Newfoundland)	

POS-60 Polymer dynamics in a gel network: the effect of confinement (SMC Poster)	Mr THRITHAMARA RANGANATHAN, Venketesh (Memorial University of Newfoundland)	
POS-56 Multisequence algorithm for coarse-grained biomolecular simulations: Exploring the sequence-structure relationship of proteins	Mr AINA, Adekunle (Memorial University of Newfoundland)	

DNP Poster Session & Finals: Poster competition and Mingle session with Industrial partners/employers (0) | Session d'affiches DPN et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (0) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

DTP Poster Session & Finals: Poster Competition and Mingle Session with Industrial Partners/Employers (1) | Session d'affiches DPT et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (1) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
POS-44 Three new roads to the Planck scale	Prof. VALERIO, Faraoni (Bishop's University)	

DHP Poster Session & Finals: Poster competition and Mingle session with Industrial partners employers (0) | Session d'affiches DHP et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (0) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

Exhibit booths open 18h00-19h30 / Salle d'exposition ouverte de 18h00 à 19h30 - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

CEWIP Poster Session & Finals: Poster Competition and Mingle Session with Industry Partners/Employers (0) | Session d'affiches CEFEP et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (0) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

DASP Poster Session & Finals: Poster Competition & Mingle Session with Industrial Partners (6) /Employers | Session d'affiches DPAE et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (6) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

title	presenter	board
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POS-8 Project VeSElKA: results of abundance analysis for the stars HD53929 and HD63975	Dr KHALACK, Viktor (Université de Moncton)	
POS-9 Results of abundancy analysis for Sirius	KHALACK, Viktor (Université de Moncton)	
POS-7 NuSTAR Search For Black Holes Within the Galactic Center	Mr LEE, Dong Hoon	
POS-10 Superposed epoch analysis of cosmic noise absorption due to co-rotation interaction regions (CIR)	FIORI, Robyn (Natural Resources Canada)	
POS-11 Determination of the effective parallel geomagnetic field along a path using Faraday rotation and total electron content from Automatic Dependent Surveillance Broadcast signals	CUSHLEY, Alex	
POS-12 Calculating the Temperature, Pressure, and Humidity Dependencies of the Michelson Interferometer for Airglow Dynamics Imaging (MIADI)	GRATTAN, Jordan (University of New Brunswick)	

DPP Poster Session & Finals: Poster Competition and Mingle Session with Industrial Partners/Employers (0) | Session

d'affiches DPP at finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (0) - SUB McInnes Hall
(12 Jun 2018, 18:00-19:30)

DPE Poster Session & Finals: Poster competition and Mingle session with Industrial partners/employers (2) | Session d'affiches

DPE et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (1) - SUB McInnes Hall (12 Jun
2018, 18:00-19:30)

title	presenter	board
POS-57 Bloom Where You're Planted: Exposing Undergraduate Students to Local Research Excellence	DOUGLAS, Kevin (Okanagan College)	
POS-63 Online lab sections with the IOLab and remotely operated experiments in first year physics	SATO, Takashi (Kwantlen Polytechnic University)	

PPD Poster Session & Finals: Poster competition and Mingle session with Industrial partners/employers (5) | Session d'affiches

PPD et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (5) - SUB McInnes Hall (12 Jun
2018, 18:00-19:30)

title	presenter	board
POS-45 Calibration systems for the Cryogenic Underground Test facility (CUTE) at SNOLAB	PAKARHA, Payam	
POS-46 A Sensitive Assay Technique for 210Pb in Water Developed for the SNO+ Experiment	Ms CHAUHAN, Dimpal (SNOLAB)	
POS-47 Anarchy and rephasing invariants for neutrinos	GIASSON, Nicolas (Université Laval)	
POS-48 Precision Calculation of Parity Violating Asymmetry in Search of New Physics	Mr MATCH, Christophe (University of Manitoba)	

POS-49 Improving reconstruction of GeV-scale neutrinos in IceCube-DeepCore by direct event simulation	NOWICKI, Sarah	
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DSS Poster Session & Finals: Poster competition and Mingle session with Industrial partners/employers (0) | Session d'affiches DSS et finales: Concours d'affiches et rencontres avec partenaires industriels et employeurs (0) - SUB McInnes Hall (12 Jun 2018, 18:00-19:30)

Student Session : Professional Development plus mingle with Industrial partners/employers/exhibitors | Session d'étudiants : Perfectionnement professionnelle plus rencontres avec partenaires industriels et employeurs et exposants - SUB McInnes Hall (12 Jun 2018, 19:30-21:30)

-Conveners: Ian D'Souza; Cluff, Daniel (University of Exeter)

Judges Meeting | Rencontre des juges - SUB 224 (cap.50) (12 Jun 2018, 19:30-19:45)

"Friends of CAP" Dinner and Meeting | Souper et réunion des "Ami(e)s de l'ACP" - SUB 307 (cap.80) (12 Jun 2018, 19:45-21:00)

CAP Past Presidents' Meeting | Réunion des anciens présidents de l'ACP - SUB 302 (cap.40) (12 Jun 2018, 19:45-21:00)

Department Leaders Business Meeting | Réunion d'affaires des directeurs de départements - SUB 303 (cap.100) (12 Jun 2018, 19:45-22:00)

Wednesday 13 June 2018

Cafeteria open for breakfast (7-10 am; \$8.50) / Caf  teria ouvert pour d  jeuner (07h00-10h00; 8,50 \$) - Howe Hall Dining Room (07:00-10:00)

PiC Editorial Board Breakfast Meeting / R  union du Comit   de r  daction de La Physique au Canada (d  jeuner) - McCain 2017 (cap.36) (13 Jun 2018, 07:00-08:30)

-Conveners: Joos, Bela (University of Ottawa)

CNILC Breakfast Meeting / R  union du comit   de liaison national canadien de l'UIPPA - McCain 2016 (cap.36) (13 Jun 2018, 07:00-08:30)

Congress Registration and Information / Inscription au congr  s et information - SUB - 1st floor Lobby | Hall du 1er   tage (07:15-16:45)

W1-1 Pattern Formation and Statistical Mechanics of Non-Equilibrium Systems (DCMMP) | Formation de motif et m  canique statistique des syst  mes hors d'  quilibre (DPMCM) - SUB 307 (cap.80) (13 Jun 2018, 08:00-09:45)

-Conveners: Morris, Stephen (University of Toronto)

time	title	presenter
08:00	Experimental and Computational Studies of 1D and 2D Chimera States in Populations of Coupled Chemical Oscillators (I)	Prof. SHOWALTER, Ken (West Virginia University, USA)
08:30	Icicle Ripples: examining a phase transition with impurities (G)*	LADAN, John (University of Toronto)
08:45	Critical failure can be tuned by material rheology: A model and a case study.	BARO URBEA, Jordi (University of Calgary)
09:00	Nonlocal models in pattern formation (I)	Prof. KOLOKOLNIKOV, Theodore (Dalhousie)
09:30	Effect of cross-linking on the size-distribution of collagen fibrils (G)*	CAMERON, Samuel (Dalhousie)

W1-5 Fields and Strings I (DTP) | Champs et cordes I (DPT) - SUB 302 (cap.40) (13 Jun 2018, 08:00-09:45)

-Conveners: Burgess, Cliff (McMaster U/Perimeter Inst.)

time	title	presenter
08:00	A dispersion relation for conformal theories (I)	Prof. CARON-HUOT, Simon (McGill University)
08:30	Decay of the false Skyrmons	Prof. PARANJAPE, Manu
08:45	Entanglement harvesting in Anti-de Sitter space and beyond (G)*	NG, Keith (University of Waterloo)
09:00	On the Validity of High-Temperature, Quasi-Periodic Solutions in AdS ₄ (G)*	COWNDEN, Brad (University of Manitoba)

09:15	Gradient Flow in Holographic Superconductors (G)	MIKULA, Paul (University of Manitoba)
09:30	A Geometric Theory of Plant Growth	Prof. HOBILL, David (University of Calgary)

W1-2 Strategies and Good Practices for Teaching Atomic, Molecular and Optical Physics (DAMOPC/DPE) | Stratégies et bonnes pratiques d'enseignement de la physique atomique, moléculaire et optique (DPAMPC/DEP) - McCain Scotiabank Auditorium (cap.250) (13 Jun 2018, 08:00-09:45)

-Conveners: Predoi-Cross, Adriana (University of Lethbridge)

time	title	presenter
08:30	Teaching optical physics at the graduate level: research and career objectives help determine content and methods of delivery (I)	CAMPBELL, Melanie (University of Waterloo)
09:00	Atomic Theory: Drilling Down to New Physics (I)	Dr DRAKE, Gordon (University of Windsor)
09:30	Pedagogical development of upper-level electrodynamics as a foundation for AMO Physics	RANGAN, Chitra (University of Windsor)

W1-4 Translational Research in Medical Physics Symposium (DPMB/DAPD) | Symposium de recherche translationnelle en physique médicale (DPMB/DPAI) - SUB 303 (cap.100) (13 Jun 2018, 08:00-09:45)

-Conveners: Bardouille, Tim (Dalhousie University); Beaulieu, Luc (Université Laval)

time	title	presenter
08:00	CT imaging in small animal research: Have we reached the limit? (I)	BAZALOVA-CARTER, Magdalena (University of Victoria)
08:30	Automated Optimization of Dynamic MRI Data Acquisition and Reconstruction Parameters using Image Quality Metrics (I)	Dr BEYEA, Steven (BIOTIC, IWK/QEII Health Sciences Centre)
09:00	Binary Collimation for Multiple Brain Metastases Radiosurgery (G, I)	Mr MACDONALD, R Lee (Dalhousie University)
09:15	Creating Research that Translates to Widespread Clinical Use (I)	Dr SVATOS, Michelle (University of Wisconsin)

W1-3 Particle Physics VI (PPD) | Physique des particules VI (PPD) - SUB 224 (cap.50) (13 Jun 2018, 08:00-09:30)

-Conveners: Kopper, Claudio (University of Alberta)

time	title	presenter
08:00	The ATLAS Upgrade for the High-Luminosity LHC (I)	Dr HESSEY, Nigel (TRIUMF)
08:30	Rn-222 Concentrations within the Water Phase of the SNO+ Experiment (G)*	WOOSAREE, Pooja (Laurentian University)
08:45	SNO+ Calibration with the 16N Source (G)*	KHAGHANI, Pouya (Laurentian University)

09:00	Bubble growth dynamics in the PICO bubble chambers (G)*	LE BLANC, Alexandre (Laurentian University)
09:15	Quenching factor for NEWS-G (G)*	Mrs VIDAL, Marie

Exhibit booths open 08:30-16:00 | Salle d'exposition ouverte de 08h30 à 16h00 - SUB - McInnes Hall (13 Jun 2018, 08:45-15:30)

Health Break (with exhibitors) | Pause santé (avec exposants) - SUB McInnes Hall (09:45-10:15)

W-MEDAL1 CAP-CRM Prize Talk | Prix ACP-CRM - Ariel Zhitnitsky, UBC - McCain Ondaatji Hall (cap.500) (13 Jun 2018, 10:15-10:45)

W-MEDAL2 CAP Lifetime Achievement Medal | Médaille pour contributions exceptionnelles de carrière - Jean-Michel Poutissou, TRIUMF - McCain Ondaatji Hall (cap.500) (13 Jun 2018, 10:45-11:15)

Cafeteria open for lunch (11h00-14h00; \$10) / Cafétéria ouvert pour dîner (11h00-14h00; 10 \$) - Howe Hall Dining Room (11:00-14:00)

Travel time to technical sessions | Transfert vers les sessions techniques (11:15-11:30)

W2-4 General Relativity II (DTP) | Relativité générale II (DPT) - SUB 302 (cap.40) (13 Jun 2018, 11:30-12:30)

-Conveners: Ghezelbash, Masoud (University of Saskatchewan)

time	title	presenter
11:30	Surprising consequences of a positive cosmological constant (I)	Dr BONGA, Beatrice (Perimeter Institute)
12:00	The nuts and bolts of higher curvature gravity (G)*	Mr HENNIGAR, Robie (University of Waterloo)
12:15	Cuscuton Bounce (G)*	KIM, Hyung Jin (University of Waterloo)

W2-2 Light-Matter Interactions I (DAMOPC) | Interactions lumière-matière (DPAMPC) - SUB 303 (cap.100) (13 Jun 2018, 11:30-12:30)

-Conveners: Davis, John (University of Alberta)

time	title	presenter
11:30	Intense Laser Solid State Physics: Bridging the Gap between Attosecond Science and Solid State Physics (I)	Dr MCDONALD, Chris (University of Ottawa)
12:00	Quantum fluctuations in dipolar Bose-Einstein condensates and Bose-Bose mixtures (G)	Mr EDLER, Daniel (Institute of Theoretical Physics, Leibniz University of Hannover)

12:15	A theoretical model of the "transverse optical magnetism" phenomenon	RANGAN, Chitra (University of Windsor)
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W2-6 Inclusive Science Education (Part 1) (DPE/CEWIP) | Éducation scientifique inclusive (1ère partie) (DEP/CEFEP) -

McCain Scotiabank Auditorium (cap.250) (13 Jun 2018, 11:30-12:30)

-Conveners: Patricia Mitchler

time	title	presenter
11:30	Fostering Physics Identity to Support Young Women in Physics Education (I)	Ms MAINHOOD, Lindsay (Queens University)
12:00	How to keep more students in physics: Ideas from the literature (G)*	STILES-CLARKE, Laura (St. Francis Xavier University)
12:15	Report on the 2018 Canadian Conference for Undergraduate Women in Physics (CUWiP) and evolution of an APS-CAP partnership	VACHON, Brigitte (McGill University (CA))

W2-1 Pattern Formation 2 (DCMMP) | Formation de motif 2 (DPMCM) - SUB 224 (cap.50) (13 Jun 2018, 11:30-12:30)

-Conveners: Baro Urbea, Jordi (University of Calgary)

time	title	presenter
11:30	Pilot-wave hydrodynamics (I)	Prof. BUSH, John (MIT)
12:00	Power-law Viscoelastic Rheology Controls the Occurrence of Aftershocks	Dr SHCHERBAKOV, Robert (Western University)
12:15	Unveiling criticality in noisy nonequilibrium systems (G)*	KORCHINSKI, Daniel (The University of Calgary)

W2-5 COMP Special Session (DPMB) | Session spéciale de l'OCPM (DPMB) - SUB 307 (cap.80) (13 Jun 2018, 11:30-12:30)

-Conveners: Beaulieu, Luc (Université Laval)

time	title	presenter
11:30	Monte Carlo simulations for magnetic resonance guided radiation therapy dosimetry (I)	Dr MALKOV, Victor N. (Carleton University)
12:00	Seeing is Believing: New Imaging Physics to Transform Asthma Patient outcomes (I)	Prof. PARRAGA, Grace (Western University)

W2-3 Particle Physics VII (PPD) | Physique des particules VII (PPD) - Dunn 101 (cap.82) (13 Jun 2018, 11:30-12:30)

-Conveners: Konaka, Akira (TRIUMF)

time	title	presenter
11:30	Separation of Cherenkov and Scintillation Light in SNO+ (G)*	FLETCHER, Liz (Queen's University)
11:45	Infrared Photon Interactions in SuperCDMS Detectors (G)*	Mr GHAITH, Muad (Queen's University)
12:00	Detection of proton recoils with the PICO-0.1 test bubble chamber (G)*	TARDIF, Frédéric (Université de Montréal)

12:15	PICO40L neutron background simulation (G)*	PLANTE, Arthur (Université de Montréal)
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CAP Communications Committee Mtg. / Réunion du comité de communications de l'ACP - SUB 302 (cap.40) (13 Jun 2018, 12:30-13:30)

-Conveners: Pavan, Marcello (TRIUMF)

DPE Annual Meetings / Assemblée annuelle DEP - McCain 2016 (cap.36) (13 Jun 2018, 12:30-13:30)

-Conveners: Mitchler, Patricia (Balmoral Hall)

DAPI Annual Meeting / Assemblée annuelle DPIA - McCain 2017 (cap.36) (13 Jun 2018, 12:30-13:30)

-Conveners: Michaelian, Kirk (Natural Resources Canada)

DCMMP Annual Meeting / Assemblée annuelle DPMCM - McCain 2102 (cap.36) (13 Jun 2018, 12:30-13:30)

-Conveners: Luke, Graeme (McMaster University)

PPD Annual Meeting / Assemblée annuelle PPD - McCain 2021 (cap.36) (13 Jun 2018, 12:30-13:30)

-Conveners: Kopper, Claudio (University of Alberta)

Student Seminar: Physicists in Industry / Séminaire d'étudiants: Les physiciens dans l'industrie - SUB 303 (cap.100) (13 Jun 2018, 12:30-13:30)

W3-6 Particle Physics VIII (PPD) I Physique des particules VIII (PPD) - Dunn 135 (cap. 82) (13 Jun 2018, 13:30-15:00)

-Conveners: Hessey, Nigel (TRIUMF)

time	title	presenter
13:30	Status of T2K and future (I)	Dr KONAKA, Akira (TRIUMF)
14:00	Search for dark matter candidates produced in Z(l) + ETmiss events in 13 TeV proton-proton collisions with the ATLAS detector at the Large Hadron Collider (G)	MCLEAN, Kayla (University of Victoria (CA))
14:15	Measurement of the Drell–Yan triple-differential cross section in pp collisions at $\sqrt{s} = 8$ TeV	Prof. KEELER, Richard (University of Victoria)
14:30	Exploring Multi-scatter Signatures in Dark Matter Searches (G)	BROERMAN, Benjamin (Queen's University)
14:45	Emulsion-based Measurement of the Production of Hadrons At a Test beam in Chicagoland [EMPHATIC] (G)	Mr GAMEIL, Khalid (University of British Columbia)

W3-3 Fields and Strings II (DTP) | Champs et cordes II (DPT) - Dunn 101 (cap. 82) (13 Jun 2018, 13:30-15:00)

-Conveners: Mann, Robert (University of Waterloo)

time	title	presenter
13:30	Renormalisation of non-perturbative calculations in scalar theories (I)	Prof. CARRINGTON, Margaret (Brandon University)
14:00	From the Chiral Lagrangian to the EFT on a Single M5-Brane (I)	Dr CACHAZO, Freddy (Perimeter Institute)
14:30	Open EFTs and Gravity as a Medium (I)	Prof. BURGESS, Cliff (McMaster U/Perimeter Inst.)

W3-8 Nuclear Structure II (DNP) | Structure nucléaire II (DPN) - SUB 224 (cap. 50) (13 Jun 2018, 13:30-15:00)

-Conveners: Iris Dillmann

time	title	presenter
13:30	Ab initio calculations for exotic nuclei (I)	VORABBI, Matteo (TRIUMF Canada's particle accelerator centre)
14:00	High-Precision Branching Ratio Measurement for the Superaligned Fermi Beta Emitter ^{22}Mg	LAFFOLEY, Alex (University of Guelph (CA))
14:15	Investigation of the nuclear structure of ^{33}Al through β -decay of ^{33}Mg to probe the island of inversion (G)	ZIDAR, Tammy (University of Guelph)
14:30	Enhanced α -Transfer population of the 2^{+}_{ms} mixed-symmetry state in ^{52}Ti	ALI, Fuad A. (University of Guelph)
14:45	User Support and Engagement at TRIUMF	Dr PAVAN, Marcello (TRIUMF)

W3-4 Soft matter and molecular dynamic (DPMB/DCMMP) | Matière molle et dynamique moléculaire (DPMB/DPMCMI) - SUB 302 (cap. 40) (13 Jun 2018, 13:30-15:00)

-Conveners: Lin, Francis (University of Manitoba)

time	title	presenter
13:30	Physical properties of model membranes: From membrane asymmetry to vitamin E (I)	Dr MARQUARDT, Drew (University of Windsor)
14:00	Escherichia coli's RfaH studied by all-atom Monte Carlo simulation (G)*	Mr AINA, Adekunle (Memorial University of Newfoundland)
14:15	Capillary levelling of a liquid stepped film supported on an immiscible liquid film (G)*	LEE, Carmen (McMaster University)
14:30	Voltage-driven translocation through a nanopore: How can we define the capture radius? (G)*	Mr QIAO, Le (Department of Physics, University of Ottawa)

W3-2 Energy Storage 3 (DCMMP) | Accumulation d'énergie 3 (DPMCMI) - SUB 303 (cap. 100) (13 Jun 2018, 13:30-15:00)

-Conveners: Hall, David (The Open University)

time	title	presenter
13:30	Interface Controlled Anode-Free Sodium Batteries (I)	Prof. PINT, Cary (Vanderbilt University)
14:00	Advances in Alloy Negative Electrodes for Li-ion Batteries (I)	Prof. OBROVAC, Mark (Dalhousie University)
14:30	Gauging Li-ion Cell Health by Monitoring Irreversible Volume Expansion (G)*	LOULI, Alex (Dalhousie University)
14:45	Analyzing the Effect of Surface Coatings on Lithium Cycling Efficiency via Combinatorial Analysis	GENOVESE, Matthew (Dalhousie University)

W3-5 Quantum Sensors and Quantum Technology (DAMOPC) | Détecteurs quantiques et technologie quantique (DPAMPC) -

SUB 307 (cap. 80) (13 Jun 2018, 13:30-15:00)

-Conveners: Branczyk, Agata (Perimeter Institute)

time	title	presenter
13:30	Towards Microwave to Telecom Wavelength Quantum Information Transfer using Cavity Optomechanics (I)	DAVIS, John (University of Alberta)
14:00	Graphene Lubrication and Wetting Transparency Evaluated through Nanoscale Friction (I)	Dr EGBERTS, Philip (University of Calgary)
14:30	Autler-Townes quantum memory for broadband light storage and manipulation	LEBLANC, Lindsay (University of Alberta)
14:45	Optical fiber nanoprobe for the detection of chemicals (G)	Mr TREVISANUTTO, Joshua (Lakehead University)

W3-1 Creating Authentic Physics Learning Experiences (DPE) | Créer d'authentiques expériences d'apprentissage en physique

(DEP) - McCain Scotiabank Auditorium (Cap. 250) (13 Jun 2018, 13:30-15:00)

-Conveners: Rangan, Chitra (University of Windsor)

time	title	presenter
13:30	This machine has no brain, use your own. Canada's synchrotron as a classroom resource (I)	Dr BLYTH, Robert (Canadian Light Source)
14:00	Stars for Everyone – Astronomy Outreach Doubling Physics Enrollments (I)	BARKANOVA, Svetlana (Memorial University)
14:30	Integrating Online Information Search in Tutorials – Effects on Student Learning and Perceptions	AHRENSMEIER, Daria (Simon Fraser University)
14:45	Impact of Reflective Writing and Laboratories on Student Understanding of Force and Motion in Introductory Physics	KALMAN, Calvin (Concordia University)

W3-7 Applied Physics Instrumentation (DAPI) | Instrumentation de physique appliquée (DPAI) - McCain 2016 (cap. 36) (13

Jun 2018, 13:30-14:15)

-Conveners: Michaelian, Kirk (Natural Resources Canada)

time	title	presenter
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13:30	Cryogenic Energy Storage in Conjunction with Mine Chilling a Co-generation System (I)	Dr CLUFF, Daniel (University of Exeter)
14:00	Hydraulic and mechanical investigations of permeable materials based on tire crumb	Dr MURRAY, Christopher (Lakehead University)

Health Break (with exhibitors) | Pause santé (avec exposants) - SUB McInnes Hall (15:00-15:30)

W4-4 DPMB Get together (DPMB) | Rencontre DPMB (DPMB) - SUB 302 (cap. 40) (13 Jun 2018, 15:30-16:45)

-Conveners: Beaulieu, Luc (Université Laval)

W4-2 Nonlinear Optics (DAMOPC) | Optique non linéaire (DPAMPC) - SUB 307 (cap. 80) (13 Jun 2018, 15:30-16:45)

-Conveners: Chris McDonald

time	title	presenter
15:30	Material Candidates for Nonlinear Photonic Devices (I)	Prof. DOLGALEVA, Ksenia (University of Ottawa)
16:00	Customizing quantum light sources for emerging quantum technologies (I)	Dr BRANCZYK, Agata (Perimeter Institute)
16:30	Light polarization control by reflection off an ultrathin, phase change layer	Prof. HACHÉ, Alain (Université de Moncton)

W4-5 Education Research-informed Physics Teaching (DPE) | L'enseignement de la physique enrichi par la recherche en éducation (DEP) - McCain Scotiabank Auditorium (cap. 250) (13 Jun 2018, 15:30-16:45)

-Conveners: Kalman, Calvin (Concordia University)

time	title	presenter
15:30	Retrospective View of PER-Informed Teaching in Introductory Physics (I)	Dr SARTY, Adam (Saint Mary's University)
16:00	Bringing sound pedagogy beyond the first and second year	Dr STOTYN, Sean (University of Calgary)
16:15	Grade Inflation due to Selective Averaging	Dr SOBHANZADEH, Mandana (Mount Royal university)
16:30	Measuring Scientific Literacy	Dr BLOKLAND, Ian (University of Alberta, Augustana Campus)

DJ Mtg BSOC - McCain 2016 (cap. 36) (13 Jun 2018, 15:30-16:15)

W4-3 Advances in Nuclear and Particle Physics Theory (DTP/PPD/DNP) | Progrès en physique nucléaire et en physique des particules théorique (DPT/PPD/DPN) - SUB 224 (cap. 50) (13 Jun 2018, 15:30-16:45)

-Conveners: Aleksejevs, Aleksandrs (Memorial University of Newfoundland)

time	title	presenter
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15:30	Status of Higgs Portal Dark Matter (I)	Prof. DICK, Rainer (University of Saskatchewan)
16:00	Chiral Gravitational Waves and Baryon Superfluid Dark Matter (I)	Dr MCDONOUGH, Evan (Brown University)
16:30	QCD Sum-Rules Analysis of Meson-Hybrid Mixing in Vector Heavy Quarkonium (G)	PALAMETA, A.

W4-1 Energy Storage 4 (DCMMP) | Accumulation d'énergie 4 (DPMCM) - SUB 303 (cap. 100) (13 Jun 2018, 15:30-16:45)

-Conveners: Hill, Ian (Department of Physics & Atmospheric Science, Dalhousie University)

time	title	presenter
15:30	On the Design of Organic Molecules for Redox Flow Batteries (I)	Prof. ODOM, Susan (University of Kentucky)
16:00	Transport properties of electrolytes containing esters for high power Li-ion cells (G)	LOGAN, Eric (Dalhousie University)
16:15	Bispyridinylidene Anolytes for Organic Redox Flow Batteries	Dr DYKER, C. Adam (University of New Brunswick)
16:30	Organic electrolytes for use in low-cost aqueous redox flow batteries (G)	CLEGG, Charlotte (Dalhousie University)

BSOC Finalists - McCain 2016 (cap. 36) (13 Jun 2018, 16:15-16:45)
Travel time to Plenary Lecture (16:45-17:00)

Cafeteria open for dinner (17h00-19h30; \$14) / Caf  teria ouvert pour souper (17h00-19h30; 14 \$) - Howe Hall Dining Room (17:00-19:30)

W-PLN1 Plenary Session | Session pl  ni  re - Anne Martel, U.Toronto "Machine Learning for Medical Image Analysis" - McCain Scotiabank Auditorium (cap. 250) (13 Jun 2018, 17:00-17:45)

time	title	presenter
17:00	Machine Learning for Medical Image Analysis	Dr MARTEL, Anne (Sunnybrook Research Institute; Department of Medical Biophysics, University of Toronto)

CAP President's report | Rapport du pr  sident de l'ACP - McCain Scotiabank Auditorium (cap. 250) (13 Jun 2018, 17:45-18:00)

time	title	presenter
17:45	Test Abstract for 2018 Congress	FORD, Francine (Canadian Association of Physicists)

CAP Annual General Meeting with election of Board and Advisory Council members | Assemblée générale annuelle de l'ACP avec élection des membres du c.a. et du conseil consultatif - McCain Scotiabank Auditorium (cap. 250) (13 Jun 2018, 18:00-19:15)

Break: Bus to Wednesday reception/dinner | Autobus vers le banquet (19:15-19:30)

CAP Medalists Award Banquet @ Murphy's - Limited seating. Tickets will not be sold at the door | Banquet des médaillés de l'ACP chez Murphy's - Sièges limités; aucun billet vendu à l'entrée - private function (13 Jun 2018, 19:30-22:00)

Thursday 14 June 2018

CINP Board meeting / Réunion du conseil de l'ICPN - McCain 2021 (cap. 36) (14 Jun 2018, 07:00-08:00)

Breakfast in cafeteria / Déjeuner à la cafeteria (ticket required / billet requis) - Howe Hall Dining Room (07:00-10:00)

Congress Registration and Information / Inscription au congrès et information - McCain 1st floor Lobby (07:00-14:00)

R1-4 Inclusive Science Education (Part 2) (DPE/CEWIP) | Éducation scientifique inclusive (2ième partie) (DEP/CEFEP) - McCain Scotiabank Auditorium (cap. 250) (14 Jun 2018, 08:00-09:00)

-Conveners: Peet, A.W. (University of Toronto)

time	title	presenter
08:00	Gender Diversity in Sciences: Challenges and Benefits (I)	LANGELIER, Eve (Université de Sherbrooke)
08:30	Is closing the gender gap in Physics and Engineering in Ontario possible? (I)	WILLIAMS, Martin (University of Guelph)

R1-2 Medical Imaging 2 (DPMB) | Imagerie médicale 2 (DPMB) - McCain 2016 (cap. 36) (14 Jun 2018, 08:00-09:00)

-Conveners: Bazalova-Carter, Magdalena (University of Victoria)

time	title	presenter
08:00	Machine Learning Applications in Functional Neuroimaging Data (I)	BARDOUILLE, Timothy (Dalhousie University)
08:30	Axon Diameter Measurements in the Human Corpus Callosum using Oscillating Gradient Spin Echo Sequences	MARTIN, Melanie (University of Winnipeg)

R1-6 Quantum Computing and Communication (DAMOPC/DTP/DCMMP) | Calcul et communication quantiques (DPAMPC/DPT/DPMCM) - SUB 302 (cap. 40) (14 Jun 2018, 08:00-09:00)

-Conveners: Marzlin, Karl-Peter (St. Francis Xavier University)

time	title	presenter
08:00	Building synthetic quantum systems with atoms and photons — from waveguide QED with neutral atoms to “gauged” quantum materials with cavity-dressed Rydberg polaritons. (I)	CHOI, Kyung Soo (University of Waterloo)
08:30	Adaptive Optics for Quantum Key Distribution between an Earth station and a Satellite	Dr PUGH, Christopher (Brandon University)
08:45	Towards passive polarization compensation of quantum key distribution signals for free-space quantum communication (G)*	TANNOUS, Ramy (University of Waterloo)

: R1-5 History of Physics (DHP) | Histoire de la physique (DHP) - SUB 224 (cap. 50) (14 Jun 2018, 08:00-09:00)

-Conveners: Marchildon, Louis (Université du Québec à Trois-Rivières)

time	title	presenter
08:00	Two Hundred Years of Physics at Dalhousie (I)	Prof. JERICHO, Manfred (Dalhousie University)
08:30	John Stuart Foster and Canada's First Cyclotron	Prof. HANNA, David
08:45	The Role of the Cyclotrons in Photosynthesis Research	Dr BARLETTA, Francesco (Centre matapédien d'études collégiales)

R1-3 Particle Physics IX (PPD) | Physique des particules IX (PPD) - Dunn 101 (cap.82) (14 Jun 2018, 08:00-08:45)

-Conveners: Hessey, Nigel (TRIUMF)

time	title	presenter
08:00	Performance of Canadian-made muon chambers for the ATLAS experiment Phase-1 upgrade.	KWAN, Tony (University of Victoria (CA))
08:15	Results from the DAMIC at SNOLAB Experiment	Dr LAWSON, Ian (SNOLAB)
08:30	CUTE – A low background facility for testing cryogenic detectors	NAGORNY, Serge (Queen's University)

R1-7 Neutrons (DNP) | Neutrons (DPN) - SUB 303 (cap. 100) (14 Jun 2018, 08:00-09:00)

-Conveners: Elie Korkmaz

time	title	presenter
08:00	The ultra-cold neutron facility at TRIUMF (I)	KUCHLER, Florian
08:30	Quantum Vortex Limitations to Ultracold Neutron Production	MARTIN, Jeffery (The University of Winnipeg)
08:45	Neutron electric dipole moment measurement: systematics and magnetic field control	Dr FRANKE, Beatrice (TRIUMF)

R1-1 Theoretical Modeling of Materials 1 (DCMMP) | La modélisation théorique de matériaux 1 (DPMCM) - SUB 307 (cap. 80) (14 Jun 2018, 08:00-09:00)

-Conveners: Luke, Graeme (McMaster University)

time	title	presenter
08:00	Electronic States of the Moiré superlattice (I)	Prof. GUO, Hong (McGill University)
08:30	Application of the exchange-hole dipole moment dispersion model to surfaces and 2D materials (I)	Prof. JOHNSON, Erin (Department of Chemistry, Dalhousie University)

R-PLN1 Plenary Session | Session Plénière - Jeff Dahn, Dalhousie University - McCain Ondaatji Hall (14 Jun 2018, 09:00-09:45)

Health Break | Pause santé - SUB 2nd Floor Lobby (09:45-10:15)

R-MEDAL1 CAP-INO Applied Photonics Medal Talk | Médaille ACP-INO en photonique appliquée - Tigran Galstian, Université Laval - McCain Ondaatji Hall (cap. 500) (14 Jun 2018, 10:15-10:45)

-Conveners: Pistorius, Stephen (CCMB, University of Manitoba)

R-MEDAL2 CAP-TRIUMF Vogt Medal Talk | Médaille Vogt de l'ACP-TRIUMF - Rituparna Kanungo, Saint Mary's University - McCain Ondaatji Hall (cap. 500) (14 Jun 2018, 10:45-11:15)

-Conveners: MacKenzie, Richard (CAP President)

Travel time to technical sessions | Transfert vers les sessions techniques (11:15-11:30)

Joint CINP-IPP Meeting / Réunion conjointe de l'ICPN et de l'IPP (DPN-PPD) - McCain Ondaatji Hall (cap. 500) (14 Jun 2018, 11:15-13:15)

-Conveners: Garth Hubert

R2-4 Theoretical and computational biophysics (DPMB) | Biophysique théorique et calculatoire (DPMB) - SUB 224 (cap. 50) (14 Jun 2018, 11:30-12:15)

-Conveners: Bergevin, Christopher (York University)

time	title	presenter
11:30	Sequence-specific random-phase-approximation theory for polyampholytic intrinsically disordered proteins in liquid-liquid phase separation	Dr LIN, Yi-Hsuan (University of Toronto)
11:45	Ratcheting of spherical particles in simple microfluidic devices: making particles move against the direction of the net force	Prof. SLATER, Gary W. (University of Ottawa)
12:00	Failure of the Ogston Model: Systems with Anisotropic Obstacles and Inhomogeneous Diffusivity	Dr BAGHERI, Mehran

R2-2 Electrochemical Energy Storage (DAPI) | Stockage d'énergie électrochimique (DAPI) - SUB 302 (cap. 40) (14 Jun 2018, 11:30-12:00)

-Conveners: Hache, Alain (Université de Moncton)

time	title	presenter
11:30	Transport properties of electrolytes containing esters for high power Li-ion cells (G)	LOGAN, Eric (Dalhousie University)
11:45	From the Research Lab to the Market: Advanced Battery Testing and Diagnostics	Dr BURNS, Chris (Novonix)

R2-3 Laser Physics and Spectroscopy (DAMOPC) | Physique des lasers et spectroscopie (DPAMPC) - SUB 307 (cap. 80) (14 Jun 2018, 11:30-12:30)**

-Conveners: Marzlin, Karl-Peter (St. Francis Xavier University)

time	title	presenter
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11:30	Applications of Auto-locked Laser Systems for Precision Metrology (I)	Dr KUMARAKRISHNAN, A (Department of Physics and Astronomy, York University)
12:00	Room temperature study of nitrous oxide in the bending band	Prof. PREDOI-CROSS, Adriana (512 Silkstone Crescent West, Lethbridge AB T1J4C1)
12:15	Hyperfine splitting in atomic hydrogen and two photon processes in CARS and cosmic blackbody radiation (G)	Mr PERCY, Spencer (University of Windsor)

R2-1 Theoretical modeling of materials 2 (DCMMP) / Modélisation théorique de matériaux 2 (DPMCM) - SUB 303 (cap. 100)
(14 Jun 2018, 11:30-12:30)

time	title	presenter
11:30	Ab-initio modeling of thermoelectric materials: a new route towards higher efficiency (I)	Prof. MAASSEN, Jesse (Dalhousie University)
12:00	Intermediate band materials for high efficiency solar cells: overview and future directions (I)	KRICH, Jacob (University of Ottawa)

Lunch in cafeteria / Dîner à la cafeteria (ticket required / billet requis) - Howe Hall Dining Room (12:30-13:30)

DHP Annual Meeting / Assemblée annuelle DHP - McCain 2016 (cap. 36) (14 Jun 2018, 12:30-13:30)

-Conveners: Marchildon, Louis (Université du Québec à Trois-Rivières)

DTP Annual Meeting / Assemblée annuelle DPT - McCain 2017 (cap. 36) (14 Jun 2018, 12:30-13:30)

-Conveners: Ariel Edery

CJP Introduction to Commemorative issue honouring Ursula Franklin (was formerly Commercial Publishers Workshop with MacMillan Publishers) - SUB 307 (cap. 80) (14 Jun 2018, 12:30-13:30)

CEWIP Business Meeting & Reception / Réunion d'affaires CEFEP et réception - SUB 307 (cap. 80) (14 Jun 2018, 12:30-13:30)

CINP Annual General Meeting / Assemblée générale annuelle de l'ICPN - SUB 303 (cap. 100) (14 Jun 2018, 13:15-14:00)

-Conveners: Huber, Garth (University of Regina)

CAP Foundation Board Meeting / Réunion du CA de la Fondation de l'ACP - McCain 2017 (cap. 36) (14 Jun 2018, 13:30-15:00)

-Conveners: Roney, Michael (University of Victoria)

R3-4 Condensed Matter / Quantum Theory (DTP/DCMMP) | Matière condensée / théorie quantique (DPT/DPMCM) - SUB 307 (cap. 80) (14 Jun 2018, 13:30-15:00)
-Conveners: Edery, Ariel (Bishop's University)

time	title	presenter
13:30	Mott transition as an organizing principle for high-temperature superconductivity (I)	Prof. TREMBLAY, André-Marie (Université de Sherbrooke)
14:00	Quantum communication with coherent states (I)	Prof. LUTKENHAUS, Norbert (University of Waterloo)
14:30	Entanglement signatures of emergent Dirac fermions: kagome spin liquid and quantum criticality (I)	Prof. WITCZAK-KREMPA, William (Université de Montreal)

R3-2 Light-Matter Interactions II (DAMOPC/DCMMP) | Interactions lumière-matière II (DPAMPC/DPMCM) - SUB 302 (cap. 40) (14 Jun 2018, 13:30-15:00)
-Conveners: Pugh, Christopher (University of Waterloo/Institute for Quantum Computing)

time	title	presenter
13:30	Cavity Spintronics (I)	Prof. HU, Can-Ming (University of Manitoba)
14:00	Real-time arrangement of atoms into a low-entropy state using high-resolution optical tweezers	SABOONI, Mahmood (Institute for Quantum Computing, Department of Physics and Astronomy, University of Waterloo)
14:15	Control of plasmon modes of metallic nanoantenna arrays on metal-insulator transition material substrate using thermo-optical switching mechanism (G)	Mrs RASHIDI, Arezou (Nipissing University)
14:30	Experimental results and calculations for carbon monoxide in the fundamental band	Prof. ADRIANA , Predoi-Cross (512 Silkstone Crescent West, Lethbridge, AB)
14:45	Antihydrogen 1S-2P Spectroscopy (G)*	Mr EVANS, Andrew (University of Calgary)

R3-3 Particle Physics X (PPD) | Physique des particules X (PPD) - SUB 224 (cap. 50) (14 Jun 2018, 13:30-15:00)
-Conveners: Morrissey, David (TRIUMF)

time	title	presenter
13:30	Astroparticle physics with neutrinos at the South Pole (I)	YANEZ, Juan-Pablo (University of Alberta)
14:00	Status of PICO-40L	Dr SULLIVAN, Tristan (Queen's University)
14:15	Photo-neutron Calibrations of SuperCDMS Dark Matter Detectors	SCARFF, Andrew (University of British Columbia)

14:30	Understanding eV-threshold calorimeters for SuperCDMS and other dark matter searches	ROBINSON, Alan (Fermilab)
14:45	The SNO+ Calibration Program	BAYES, Ryan (Laurentian University)

R3-5 Multimodal and Nonlinear Imaging in Biological Systems (DPMB) | Imagerie multimodale et non-linéaire dans les systèmes biologiques (DPMB) - Dunn 101 (cap. 82) (14 Jun 2018, 13:30-15:00)

-Conveners: Kreplak, Laurent (Dalhousie)

time	title	presenter
13:30	Interferometric Second Harmonic Generation Microscopy and applications. (I)	Prof. FRANÇOIS, Légiaré (INRS-EMT)
14:00	Surface Enhanced Stimulated Raman Spectroscopy using CW sources (I)	HEWITT, Kevin (Dalhousie University)
14:30	Determination of the origin of third harmonic generation in bone for intravital nonlinear optical microscopy of bone tissue	Prof. TOKARZ, Danielle (Saint Mary's University)
14:45	First observation of dinosaur skin layers using synchrotron radiation	Prof. BARBI, Mauricio (University of Regina)

R3-1 Nuclear physics, special topics (DNP) | Sujets spéciaux en physique nucléaire (DPN) - SUB 303 (cap. 100) (14 Jun 2018, 14:00-15:00)

-Conveners: Huber, Garth (University of Regina)

time	title	presenter
14:00	Science and Status of the US Electron Ion Collider (EIC) (I)	Prof. DESHPANDE, Abhay (Stony Brook University)
14:30	The BRIKEN experimental campaign: Beta-delayed neutron measurements at RIKEN for nuclear structure, astrophysics, and applications (I)	Dr CABALLERO-FOLCH, Roger (TRIUMF)

Health Break | Pause santé (15:00-15:30)

R-PLEN2 CAP Best Student Presentations Final Competition / Compétition finale de l'ACP pour les meilleures communications étudiantes - McCain Ondaatji Hall (cap. 500) (14 Jun 2018, 15:30-17:30)

-Conveners: Ghose, Shohini (urn:Facebook)

time	title	presenter
15:30	The effect of high latitude distorted ion velocity distributions on radar and satellite observations; Lindsay Goodwin, U.Sask.	
15:45	Superfluid black holes; Robie Heringar, U.Waterloo	
16:00	Partitioning of Caffeine in Lipid Bilayers Reduces Membrane Fluidity and Increases Membrane Thickness; Andrew Khondker, McMaster U.	
16:15	Detecting Antineutrinos Using the SNO+ Detector; Pawel Mekarski, U. Alberta	
16:30	Microwave spectroscopy of antihydrogen as a test of CPT symmetry; Justine Joyce Munich, SFU	

16:45	Rearrangement of 2D clusters of droplets under compression: transition from crystal to glass; Jean-Christophe Ono-dit-Biot, McMaster U.	
17:00	Airborne Demonstration of a Quantum Key Distribution Receiver Payload; C. Pugh, U. Waterloo	

R-PLEN3 Plenary Session | Session plénière - Eric Cornell, Univ. of Colorado - McCain Ondaatji Hall (cap. 500) (14 Jun 2018, 17:30-18:15)

time	title	presenter
17:30	Looking for Fossils of the Big Bang in Molecular Spectra	Prof. CORNELL, Eric (University of Colorado)

Judges Meeting | Rencontre des juges - McCain 2016 (cap. 36) (14 Jun 2018, 17:30-18:15)

Student Awards Ceremony / Cérémonie de reconnaissance d'étudiants - McCain Ondaatji Hall (14 Jun 2018, 18:15-19:00)

CJP Editorial Board Meeting | Réunion du comité de rédaction de la RCP - Outside Restaurant (14 Jun 2018, 19:15-20:00)

Meeting of Local Organizing Committees 2017, 2018 + / Réunion des comités organisateurs locaux 2017, 2018 + - McCain 2016 (cap. 36) (14 Jun 2018, 19:15-20:00)

Dinner and Meeting: CAP Board and Institutional Members | Souper et réunion : Conseil d'administration de l'ACP et les membres institutionnels - McCain 2016 (cap. 36) (14 Jun 2018, 20:00-21:30)

Friday 15 June 2018

Breakfast in cafeteria / Déjeuner à la cafeteria (ticket required / billet requis) - Howe Hall Dining Room (07:00-10:00)

CAP Foundation Annual General Meeting / Assemblée annuelle de la Fondation de l'ACP - SUB 224 (cap. 50) (15 Jun 2018, 08:00-09:00)
-Conveners: Roney, Michael (University of Victoria)

CAP Board Meeting (New and Old) / Réunion du CA de l'ACP (nouveau et ancien) - SUB 224 (cap. 50) (15 Jun 2018, 09:00-12:00)
-Conveners: Gaulin, Bruce (McMaster University)

IPP AGM / AGA de l'IPP - SUB 303 (cap. 100) (15 Jun 2018, 09:00-13:00)

-Conveners: Roney, Michael (University of Victoria)

time	title	presenter
09:00	IPP Director's Report & Council Election Results	RONEY, Michael (IPP)
09:30	IPP MRS Grant submission - discussion	
10:00	CPARC	NOBLE, Tony (Queen's University)
10:20	T2K	KONAKA, Akira (TRIUMF)
10:40	NA62 and PiEnu	NUMAO, Toshio (TRIUMF)
10:55	BREAK	
11:15	Belle II	WARBURTON, Andreas (McGill University, (CA))
11:30	SNO+	Prof. CHEN, Mark (Queen's University)
11:45	ATLAS	KRIEGER, Peter (University of Toronto (CA))
12:05	SuperCDMS	Dr RAU, Wolfgang (Queen's University)
12:20	Closeout	RONEY, Michael (IPP Director)

IPP Scientific Council Meeting / Réunion du comité scientifique de l'IPP - SUB 224 (cap. 50) (15 Jun 2018, 13:00-14:00)

-Conveners: Roney, Michael (University of Victoria)

Lunch in cafeteria / Dîner à la cafeteria - Howe Hall Dining Room (15 Jun 2018, 13:00-14:00)

IPP Inst. Members and Board of Trustees Meetings / Réunions des membres inst. et du conseil de l'IPP - SUB 224 (cap. 50) (15 Jun 2018, 14:00-17:00)

-Conveners: Roney, Michael (University of Victoria)

2018 CAP Congress / Congrès de l'ACP 2018

Presenter List / Liste des conférenciers

The following is the list of speakers registered in the CAP Congress abstract system as at May 25, 2018. To find out when they are giving their talk, go to the online speaker list at <https://indico.cern.ch/event/687532/contributions/speakers> and click on the talk title that appears below the speaker's name.

Vous trouverez ci-dessous la liste des conférenciers enregistrés dans le système des résumés du Congrès de l'ACP le 25 mai 2018. Pour savoir quand ils vont parler, voir la liste des conférenciers en ligne à l'adresse <https://indico.cern.ch/event/687532/contributions/speakers> et cliquez sur le titre du résumé qui apparaît sous le nom du conférencier.

Bassel **Abdel Samad** Université de Moncton
 Tahereh **Afsharvosoughi** Brock University
 Rishima **Agarwal** Dalhousie University
 Mohammad **Ahmadi** Brock university
 Shahla **Ahmadi** University of New Brunswick
 Mohammad **Ahmady** Mount Allison University
 Shomi **Ahmed** University of Manitoba
 Daria **Ahrensmeier** Simon Fraser University
 Adekunle **Aina** Memorial Univ. of Newfoundland
 Md Meraj **Alam** UQTR/Indian Inst of Technology
Aleksandrs Aleksejevs MUN
 Masooma **Ali** University of New Brunswick
 Fuad **Ali** University of Guelph
 Fahad **Alkhayri** University of New Brunswick
 Ryan **Ambrose** University of Regina
 Koffi Novignon **Amouzou** Univ. of Moncton
 Tetyana **Antimirova** Ryerson University
 Quentin **Arnaud** Queen's University
 Yann **Audin** Bishop's University
 Ethan **Avila** Dalhousie University
 Mohammad Reza **Aziziyan** U. de Sherbrooke
 Mehran **Bagheri** University of Ottawa
 Peter **Bankole** U of Saskatchewan
 Mauricio **Barbi** University of Regina
 Tim **Bardouille** Dalhousie University
 Svetlana **Barkanova** MUN
 Francesco **Barletta** Centre matapédien
 Jordi **Baro Urbea** University of Calgary
 Michael **Bauer** Dalhousie University
 Björn **Baumeier Eindhoven** Univ of Tech.
 Ryan **Bayes** Laurentian University

Magdalena **Bazalova-Carter** Univ of Victoria
 Shane **Beattie** Elcora Advanced Materials
 Julien **Beaudoin Bertrand** Université Laval
 Christopher **Bergevin** York University
 Nikita **Bernier** TRIUMF
 Edmund **Bertschinger** MIT
 Steven **Beyea** BIOTIC, IWK/QEII Health Sci Cen.
 Ian **Blokland** University of Alberta
 Peter **Blunden** University of Manitoba
 Robert **Blyth** Canadian Light Source
 Mark **Boland** CLS
 Beatrice **Bonga** Perimeter Institute
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 Agata **Branczyk** Perimeter Institute
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The poster features a grayscale background image of a large particle accelerator tunnel with people walking along it. The TRIUMF logo, a stylized sunburst, is positioned to the left of the word "TRIUMF" in large, bold, white capital letters. Below "TRIUMF" is "50 anniversary" in white, with "anniversaire" in French below it. In the bottom left, the text "A Canadian story of discovery and innovation 50 years in the making" is written in white. Below this is the Twitter handle "@TRIUMFLab" and icons for Facebook, Instagram, and Twitter. On the right side, white text reads: "Join us in 2018 as we celebrate our rich history, our bright future, and our community of innovators." This is followed by a horizontal line, then "TRIUMF Science Week" in bold, "with special 50th Anniversary Symposium", the dates "July 16–19, 2018", and "Register at triumf.ca/science-week-2018". Another horizontal line follows, then "Explore TRIUMF: past, present, and future", and finally the website "www.triumf50.com" in bold.

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