



DISTINCTIONS

The King Faisal International Prize for Science

Canadian physicist and CAP member Paul Corkum of the University of Ottawa has won the prestigious King Faisal International Prize in Science for his pioneering research in laser technology. Known as the father of the attosecond laser pulse – Dr. Corkum developed the world’s shortest light pulse, which is so rapid that it has allowed him to capture the very first image of an electron orbiting an atom. This ground breaking research will help take physicists closer to controlling the movements of electrons, which could lead to major breakthroughs in science.

COMMUNITY NEWS

CCA Report and the British Institute of Physics bibliometric study

The Council of Canadian Academies (CCA) report of the international expert panel on science performance and research funding was published in July 2012 ([link to the CCA report](#)). In this report Physics and Astronomy were cited as one of six research fields in which Canada excels. The British Institute of Physics (BIP) bibliometric study shows Canadian physics to be on top internationally with respect to citation impact ([link to the BIP report](#)).

LOBBYING EFFORTS

NRC research vital

CAP’s President, Dr. Gabor Kunstatter, response to Feb.27 Ottawa Citizen article “*National Research Council chief defends industry-driven direction under Harper government*” highlighted the importance of preserving NRC’s vital capabilities “whether by retaining them within NRC or transferring them to other organizations. Otherwise, Canada risks shutting the door on the next great Canadian innovation.” “As Canada’s national organization of physicists, we advocate for policies that encourage business innovation, including greater co-operation between industry and universities. We urge caution in the restructuring of NRC”, said Dr. Kunstatter. The letter can be viewed at:

<http://www.cap.ca/en/news/2013-03-04/cap-continues-step-its-members-federal-public-service> .

NSERC RELATED NEWS ITEMS

News regarding the RTI program

NSERC has consulted the research community regarding the future of the RTI program. In response to community feedback, NSERC has decided to maintain a national competition for the Research Tools and Instruments program. Universities will be able to submit a quota of applications based on the number of NSERC-funded researchers. ([link to NSERC news release](#)).

Letter to NSERC

A letter was sent to NSERC regarding the recent change to the Postdoctoral Fellowship application rules, highlighting the need to preserve a balanced stream of well-trained scientists at all levels.



PUBLICATIONS

Upcoming Issue of *Physics in Canada*

The next themed issue of *Physics in Canada* will be the Oct.-Dec. 2012 issue (Vol. 68, No. 4). The issue, whose guest editor is Dr. Joëlle Margot (Université de Montréal) will feature a selection of articles on Plasma physics. As over 99% of the universe is in a plasma state, plasma physics is a fundamental subject underpinning many wide research areas such as astrophysics, space physics, laboratory ionised gases and controlled thermonuclear fusion. On a more technologically applied front, plasma physics research has a strong footing in spacecraft propulsion technology (such as ion thrusters), plasma televisions and electronic chip manufacturing (such as computer processors).

Upcoming Issue of the *Canadian Journal of Physics*

A themed issue of the *Canadian Journal of Physics* to be published this spring is on "Mid- and Far-Infrared Spectroscopy: Techniques and Applications". The issue will include submissions in the areas of i) Astronomy, planetary and Earth science applications; ii) Infrared spectroscopy of materials in physics, chemistry, biology and biomedicine; iii) Applications and methods in THz spectroscopy for non-destructive evaluation and industrial applications; iv) Spectroscopic sensing for environmental monitoring; and v) Synchrotron-based infrared spectroscopy and applications.

EVENTS

2013 CAP Congress - Université de Montréal

The Canadian Association of Physicists' Annual Congress (<http://www.cap.ca/en/congress/2013>), the largest annual physics meeting in the country, will be hosted this year by Université de Montréal from May 27-31. Total attendance is expected to exceed 600 scientists, who will hear about the latest developments in areas including condensed matter, computational physics, chemical and biological physics, new materials, polymers and fluids. Dr. Serge Haroche from the Collège de France, École normale supérieure, will discuss his method of trapping photons and putting them into a superposition, "*Juggling with photons in a box to explore the quantum world*". Plenary Speakers are Drs. Edward (Joe) Redish (University of Maryland), Bradley Sherrill (Michigan State University), and Michel Lefebvre (ATLAS Canada and University of Victoria). Post-deadline abstracts for both oral and poster presentations, are still accepted. The CAP gratefully acknowledges the support of our numerous exhibitors and sponsors (see <http://www.cap.ca/en/congress/2013/exhibitors-sponsors> for a complete list).

Theory Canada 8

The Theory Canada 8 Meeting (<http://www.theorycanada8.ca/home.html>) gathers theoreticians working in the areas of Theoretical Condensed Matter, Gravitation and Cosmology, Quantum Information, Mathematical Physics, and String Theory, Quantum Gravity, and Subatomic Theory to share new results and insights. The meeting will be hosted by Bishop's University during May 23-26, 2013. Abstracts can be submitted until April 18, 2013. The conference is sponsored by Bishop's University, Centre de Recherches Scientifique, the Stellar Astrophysics and Relativity Research Cluster, the Institute for Quantum Computing, the Fields Institute, the Perimeter Institute and the Canadian Institute for Theoretical Astrophysics.



International Conference on Surface Plasmon Photonics

The 6th International Conference on Surface Plasmon Photonics (<http://www.spp6.ca/>) will take place in Ottawa during May 26th to May 31st, 2013. The purpose of the conference is to bring together scientists and engineers involved in the production and use plasmonics for various applications. The conference will include presentations on fundamental or applied topics involving surface plasmons from THz to UV wavelengths in metallic structures of any scale for a large range of applications such as biosensors for health care, light concentration for solar energy, devices for telecommunications, near-field instrumentation for performing state-of-the-art research.

News from the Educational Trust Fund: the Canada-Wide Science Fair (CWSF) 2013

The CAP Educational Trust Fund (<http://www.cap.ca/en/activities/educational-trust-fund>) is one of the sponsors of the Canada-Wide Science Fair hosted by the University of Lethbridge during May 11-18, 2013. The fair will feature more than 400 outstanding science projects created by students from grades seven through 12 who have been selected from more than 100 regional competitions across the country. The event will include project judging, social and cultural exchanges, tours to regional science and research facilities, along with visits to featured southern Alberta tourism destinations.

SELECTED PHYSICS NEWS

New results indicate that particle discovered at CERN is the Higgs boson

(EPS.ORG) - On March 14th "the ATLAS and CMS collaborations at CERN's Large Hadron Collider (LHC) presented preliminary new results that further elucidate the particle discovered last year. Having analysed two and a half times more data than was available for the discovery announcement in July, they find that the new particle is looking more and more like a Higgs boson, the particle linked to the mechanism that gives mass to elementary particles. It remains an open question, however, whether this is the Higgs boson of the Standard Model of particle physics, or possibly the lightest of several bosons predicted in some theories that go beyond the Standard Model. Finding the answer to this question will take time."

ALMA observatory inaugurated

(EPS.ORG) - On March 13th "the Atacama Large Millimeter/submillimeter Array (ALMA) -the largest ground-based astronomical project in the world- was inaugurated, marking the transition from construction project to fully fledged observatory. "

International Young Physicists' Tournament 2013 to be held in Taiwan

(EPS.ORG) - The 26th International Young Physicists' Tournament will be held on the July 24th to 31st of 2013, and followed by the 2013-IYPT International Organizing Committee Meeting. The competition site of 26th IYPT is at Yuan Ze University of Taoyuan, Taiwan. More info at: <http://iypt.tw/> .

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