

News and Highlights

Attosecond researcher awarded

Ottawa (Canada) – The Gerhard Herzberg Canada Gold Medal for Science and Engineering has been awarded to Paul Corkum, a professor in the Department of Physics at the University of Ottawa and attosecond science researcher at the National Research Council Canada (NRC).

The award is Canada's most prestigious science prize. It is granted by the Natural Sciences and Engineering Research Council of Canada (NSERC) and includes \$1 million in research funding. The Herzberg Medal is awarded annually to an individual who has demonstrated sustained excellence and influence in research, for a body of work conducted in Canada, having led to significant advances in the natural sciences or engineering.



Figure 1: Corkum presenting his Gerhard Herzberg Canada Gold Medal (University of Ottawa)

Corkum's selection as gold medalist stems from his innovative research in the cutting-edge field of attosecond science. Corkum and his team at NRC used the world's fastest laser light pulses to capture the first image of an electron. The ultimate goal of

Corkum's work is to control the movement of electrons as they speed along inside molecules, which promises breakthrough applications in fields ranging from quantum computing to diagnostic medicine.

For more information, please visit: http://www.media.uottawa.ca/mediaroom/news-details_1641.html

Young Researcher Award

West Lafayette (IN/USA) – The SAOT Young Researcher Award in Advanced Optical Technologies has been granted to Alexandra Boltasseva, Associate Professor at Technical University of Denmark, Department of Photonic Engineering, and currently on leave of absence as an Assistant Professor of Electrical and Computer Engineering at Purdue University (West Lafayette, USA). The prize honors her pioneering contributions in the fields of plasmonics and metamaterials. The main avenue of her research is advanced nanostructuring of metamaterials. Her aim is to exploit physical phenomena related to surface plasmon polaritons, to address issues of miniaturized photonic circuitry and to develop new types of surface plasmon nano-devices for controlling optical processes at the sub-wavelength scale.

SAOT, the Erlangen Graduate School in Advanced Optical Technologies, was established 2006 at the University of Erlangen-Nuremberg (Germany) within the framework of the Excellence Initiative of the German Federal and State Governments to Promote Science and Research at German Universities. The main focus of SAOT is to improve the research activities in the development and application of optics and optical technologies, in particular at the interfaces between science, engineering and medicine. One of the key concepts of SAOT is the integration of guest scientists in both research and education. The Young Researcher Award in Optical Technolo-

gies is awarded annually to an outstanding young scientist in the field of optics and photonics to spend some time in Erlangen and pursue research in collaboration with SAOT scientists. The award winner will have the formal status of a guest professor.



Figure 2: Alexandra Boltasseva (Purdue University)

For more information, please visit: <https://engineering.purdue.edu/ECE/HomepageFeatures/ProfessorAlexandraBoltasseva/receivesSAOTYoungResear>

Brilliant displays

Cincinnati (OH/USA) – Reflective displays use ambient light to illuminate the screen image and therefore provide superior energy efficiency, sunlight legibility, and flexible/rollable form factor. However, the conventional technologies fall well short of the visual brilliance and contrast of pigments printed onto bleached-wood fiber. Researchers from the University of Cincinnati and Sun Chemical Corporation now present a new design for a thin, electronic display that operates using ambient light and promises brightness