The Abdus Salam
International Centre for Theoretical Physics

United Nations Educational, Scientific and Cultural Organization

IAEA International Atomic Energy Agency

PRESS RELEASE
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Optics Prize Awarded

Brazilian physicist cited for work bridging optics, chemistry

(Trieste, Italy) A young Brazilian physicist whose work bridges the fields of optics and chemistry has won the 2010 International Commission for Optics (ICO) /ICTP Gallieno Denardo Award.

Cleber Renato Mendonca of the Institute of Physics at the University of Sao Paulo, Brazil, uses laser pulses to study the interactions of light and matter. Lasers can change the molecular structure of materials and enhance their optical properties, leading to such applications as optical transistors, microfluidics and fluorescent microscopy.

The ICO/ICTP Gallieno Denardo Award is given to young researchers (under 40) from developing countries who are active in optics research and have contributed to the promotion of optics research activities in their own or another developing country. The annual award includes a cash stipend from ICO as well as full financial support from ICTP for the winner to attend an additional training event at the Centre and give a seminar on his or her work.

Mendonca received the award in Trieste, Italy during the annual Winter College on Optics, held from 8 to 19 February 2010 at ICTP.

The Brazilian physicist finds the field of optics attractive because of the range of research options it offers as well as its many applications. "From fundamental to applied studies, scientists can do all levels at the same time. With optics we can advance the science and develop applications for new technologies, both of which are important benefits for Brazil," he said.

Mendonca credits an interest in chemistry as the catalyst to his interdisciplinary work, as well as a desire to perform research at the cutting edge of not only Brazil but also the rest of the world.

The full citation of the award is "for the development of novel methods and procedures of non-linear optics, in particular the use of femtosecond pulses and femtosecond laser micro-fabrication in polymers for investigating nonlinear optical properties of organic compounds, and for establishing effective interdisciplinary collaborations within Brazil."

Based in Trieste, Italy, the Abdus Salam International Centre for Theoretical Physics (ICTP) provides advanced research and training opportunities in physics and mathematics for scientists from developing countries. More details are available on its website: www.ictp.it.

The objective of the International Commission for Optics (ICO) is to contribute, on an international basis, to the progress and diffusion of knowledge in the field of optics. Website: www.ico-optics.org.

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