

Joint Physics Colloquium – TOP-SET Seminar

Le jeudi 22 novembre 2018, 14h45
Des rafraîchissements seront servis dès 14h15
Complexe de recherche avancée, pièce 233
Université d'Ottawa, 25, rue Templeton
Le séminaire se déroulera en anglais.

Thursday, November 22, 2018, 2:45 p.m.
Refreshments to be served starting at 2:15 p.m.
Advanced Research Complex, room 233
University of Ottawa, 25 Templeton Street

Do we need new concepts for solar energy conversion?

Jean-François Guillemoles, Centre national de recherche scientifique (France)

Abstract: After a summary of the state of the art in the domain, I will present some fundamental and experimental progress in the field, and especially those conducted around the Institut Photovoltaïque d'Île-de-France, the new institute on photovoltaics in Paris, and in the framework of a Japanese-French collaboration, NextPV. On the theoretical side, we have made progress on the understanding and implementation of so-called ratchet approaches. On the experimental side, especially notable are demonstrations of hot carrier cells, broadband nanophotonic structures, and advanced imaging systems (hyperspectral imaging, lifetime imager, etc.) needed for these progresses.

Bio: Jean-François Guillemoles is a research director at the Centre national de recherche scientifique (CNRS), head of the Institut Photovoltaïque d'Île-de-France joint lab (joint CNRS-EDF-X-TOTAL-ENSCP-AirLiquide laboratory), Paris-Saclay (France) and director of NextPV (international joint CNRS-Research Center for Advanced Science and Technology-University of Tokyo-Université de Bordeaux laboratory). He is currently active on high efficiency concepts for solar energy conversion (hot carriers, intermediate band, multijunctions, nanophotonics), luminescence-based characterization techniques (especially hyperspectral imaging), and modeling of photovoltaic materials and devices. He is author/co-author of more than 300 publications (peer-reviewed papers, book chapters, patents, proceedings, etc.) and editor for Progress in Photovoltaics (Wiley) and the European Physical Journal Photovoltaics (EDP).



TOP-SET est un programme de formation FONCER du CRSNG en puissance optoélectronique ayant pour but de façonner une cohorte de personnel hautement qualifié détenant des connaissances approfondies en systèmes optoélectroniques pour joindre les rangs d'équipes de recherche et développement.

NSERC CREATE Training in Optoelectronics for Power: from Science and Engineering to Technology (**TOP-SET**) is a training program that aims to form a cohort of highly qualified personnel with comprehensive understanding of optoelectronic systems, capable of joining advanced R&D teams.

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