

En collaboration avec la Série de colloques du département de physique
In collaboration with the Department of Physics Colloquium Series

Séminaire

Le jeudi 7 mars 2024, 14h45
Des rafraîchissements seront servis dès 14h15.

ARC 233, [MS Teams](#)

L'atelier se déroulera en anglais.

Seminar

Thursday, March 7, 2024, 2:45 p.m.
Refreshments to be served starting at 2:15 p.m.

ARC 233, [MS Teams](#)

Photovoltaics at multi-terawatt scale: Waiting is not an option

Nancy M. Haegel, National Renewable Energy Laboratory

Abstract: The world passed a photovoltaics (PV) milestone in 2022, reaching and quickly exceeding 1 TW of global installed PV capacity. Achieving global decarbonization goals for 2035 and 2050 will require continued expansion of PV manufacturing, as well as innovation in materials science and device and module design. Setting ambitious yet achievable targets for global PV deployment will help the industry and other stakeholders plan and act accordingly. Based on a recent international perspective piece (*Science*, April 7, 2023) and a review of innovation in PV device physics (*Device*, July 31, 2023), this talk will review recent advances in PV and associated challenges in reaching multi-TW scale manufacturing and deployment, including materials supply, eco-design, and the role of device innovation at a critical time in the energy transition.

Bio: Nancy M. Haegel is a senior research advisor in the Materials, Chemical and Computational Sciences Directorate at NREL and Director of the National Center for Photovoltaics. Prior to her current role, she was the Center Director for Materials Science at NREL. Her research interests are in electronic materials and devices, with emphasis on transport characterization, high resistivity semiconductors and infrared imaging and detection. Haegel joined NREL in 2014, after 25 years in academia. She received her BS degree in Metallurgical Engineering and Materials Science from the University of Notre Dame and a PhD in Materials Science from the University of California, Berkeley. Haegel is the author or co-author of ~ 160 publications, a Fellow of APS, and has been a Fulbright Senior Scholar at Hebrew University in Jerusalem and a Humboldt Fellow at the Max Planck Institute for Extraterrestrial Physics in Garching, Germany.



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.

Pour de plus amples renseignements sur TOP-SET, veuillez consulter create-topseteecs.uottawa.ca/fr.

For further details regarding TOP-SET, go to create-topseteecs.uottawa.ca.



Le financement pour TOP-SET est fourni par le Conseil de recherches en sciences naturelles et génie.
TOP-SET is funded by the Natural Sciences and Engineering Research Council of Canada.



Le financement pour ce séminaire est fourni par l'Université d'Ottawa.
This seminar is funded by the University of Ottawa.