

Séminaire

Le lundi 13 février 2023, 13h

ARC 233 et [MS Teams](#)

Le séminaire se déroulera en anglais.

Seminar

Monday, February 13, 2023, 1 p.m.

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Performance evaluation of concentrating solar-thermal power and photovoltaic components

Paul Ndione, National Renewable Energy Laboratory, United States

Abstract: Solar energy is one of the most important renewable energy sources and continues to be deployed at record levels using both concentrating solar-thermal power (CSP) and photovoltaic (PV) technologies. The utilization of PV systems in energy production is much larger than that of CSP technologies. However, CSP has recently gained traction and is regarded as one of the most promising technologies for industrial decarbonization. The technological and commercial success of these systems depends on understanding the limitations and identifying potential enhancements. This requires a detailed performance characterization of their components and materials. In this presentation, I will address why there is a need and great opportunity for CSP at this time, and I will present the CSP Optical Facilities at the National Renewable Energy Laboratory for testing and characterizing CSP components. I will also provide a brief overview of guidelines for the accurate calibration of PV modules.



Bio: Paul Ndione is a senior scientist at the National Renewable Energy Laboratory (NREL). He joined NREL in 2010 to conduct research on oxide semiconductor systems for photovoltaic (PV) applications. Since then, he has been involved in research activities associated with concentrating solar-thermal power (CSP), solar water splitting, power electronics, and has led the certification and calibration of PV modules at NREL. He currently oversees all activities related to NREL's CSP Optical Facilities and leads projects pertaining to hydrogen storage as well as performance and reliability of PV devices. Paul received his doctorate from INRS-EMT, University of Québec.

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 rejoindre les rangs d'équipes de recherche et développement.

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