

Nuclear Engineering Seminar Dr. Peter Bermel

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SCALE: workforce development in radiationhardened technology

Abstract

SCALE is a sustainable Microelectronics Public-Private-Academic Partnership that aims to address workforce needs in specialty areas of microelectronics, including radiation-hardened technologies. SCALE is enabled by an academic consortium of nationally recognized universities across radiation-hardened technologies. This partnership aims to implement innovative, design-based engineering education methodology for metric-driven validation. In this talk, I'll discuss what initiatives the SCALE effort is pursuing, and what our initial findings are, as well as some of the future directions that the initiative will take, including how new students can get involved in the program.



DR. PETER BERMEL is an associate professor of Electrical and Computer Engineering at Purdue University. His research focuses on improving the performance of photovoltaic, thermophotovoltaic, and nonlinear systems using the principles of nanophotonics. Key enabling techniques for his work include electromagnetic and electronic theory, modeling, simulation, fabrication, and characterization. He obtained his BS, May 2000 from University of North Carolina in Physics, MPhil, June 2002 from Cambridge University in Physics and his PhD, May 2007 from Massachusetts Institute of Technology in Physics.

Dr. Bermel is widely published in scientific peer-reviewed journals, and his work has been a recurring topic in international educational activities as well as publications geared towards the general public. His work, which has been cited over 6500 times, for an h-index value of 31.