



*Prof. Paul C. McIntyre
Materials Science and Engineering,
Stanford University*

NANOSCIENCE COLLOQUIUM

Thursday
November 10, 2016
at 15:15,
K-space, Fysicum

Nanowire Structure, Luminescence Characteristics and Carrier Dynamics in the SiGe, Ge and GeSn Systems

This presentation summarizes the properties of semiconductor nanowires in the Si-Ge-Sn system, in which the nanowire geometry and core-shell structures enable independent control of strain, composition and surface defect passivation. Fundamental photonic and electronic characteristics relevant to nanoscale optoelectronic devices are emphasized. In particular, new results are reported on epitaxial Ge-core/GeSn-shell nanowires that exhibit strong room temperature direct-gap photoluminescence.

Host: Lars-Erik Wernersson (Electrical and Information Technology)