

Physics Colloquium

Michigan Technological University

Thursday, September 20, 2012

4:00 pm

Room 139 Fisher Hall



Introductory Physics Innovations at the University of Illinois

Mats Selen
University of Illinois

Abstract: About 17 years ago we significantly changed the way we taught intro physics at UIUC, defining these courses in terms of their content and infrastructure rather than the faculty assigned to teach them. Having our courses rest on a solid departmental foundation means our faculty have the time and freedom to explore new approaches, resulting in the development of powerful tools such as Interactive Examples, i>clicker, smartPhysics, and IOLab. In this talk I will describe several recent innovations that we are particularly excited about, and the research that show us these are working.

Biography: Mats earned B.Sc.('82) and M.Sc.('83) degrees in physics at the University of Guelph, and M.A.('85) and Ph.D.('89) degrees in particle physics at Princeton University. After a four year post-doc at Cornell he joined the faculty at the University of Illinois in 1993 where he has been ever since. After 25 years of studying elementary particles he is shifting his research focus to understanding and improving the way students learn physics. With Illinois colleagues he developed the iclicker classroom response system, the smartPhysics learning framework, and most recently IOLab. On Wednesday mornings he brings science to central Illinois viewers as the WCIA "WhysGuy".