January 11th, 2018

The Center for the Promotion of Learning and Teaching is proud to invite you to a special meeting

" Flat Space, Deep Learning"

Special Guest Speaker

Prof. Eric Mazur

Harvard University, Area Dean of Applied Physics
Winner of the first Minerva Prize for Advancements in Higher Education

Opening Remarks 10:00 - 10:10

Getting every student ready for every class, Prof E.Mazur 10:10 -11:15

Flat Space, Deep Learning, Prof E. Mazur 11: 15 - 12:10

Flipping Multiple PSE Courses: Can the Students Cope?, Prof D.Lewin 12:10- 12:30

Date : Thursday 11th , 10:00 - 12:30

Location: Center for the Promotion of Learning &Teaching, Ullman 213

For registration: abigailb@technion.ac.il

Brief Bio

Eric Mazur is the Balkanski Professor of Physics and Applied Physics at Harvard University and Dean of Applied Physics. He is a prominent physicist known for his contributions in nanophotonics, an internationally recognized educational innovator, and a successful entrepreneur. In education he is widely known for his work on Peer Instruction, an interactive teaching method aimed at engaging students in the classroom and beyond. In 2014 Mazur became the inaugural recipient of the Minerva Prize for Advancements in Higher Education. He has received many awards for his work in physics and in education and has founded several successful companies. Mazur is Chief Academic Advisor for Turning Technologies, a company developing interactive response systems for the education market. Dr. Mazur has widely published in peer-reviewed journals and holds numerous patents. He has also written extensively on education and is the author of Peer Instruction: A User's Manual (Prentice Hall, 1997), a book that explains how to teach large lecture classes interactively, and of the Principles and Practice of Physics (Pearson, 2014), a book that presents a groundbreaking new approach to teaching introductory calculus-based physics. Mazur is a sought-after speaker on optics and on education.

Flat Space, Deep Learning

Abstract
The teaching of physics to engineering students has remained stagnant for close to a century. In this novel team-based, project-based approach, we break the mold by giving students ownership of their learning. This new course has no standard lectures or exams, yet students' conceptual gains are significantly greater than those obtained in traditional courses. The course blends six best practices to deliver a learning experience that helps students develop important skills, including communication, estimation, problem solving, and team skills, in addition to a solid conceptual understanding of physics. I'll present the course philosophy and pedagogical approach, and show data obtained in four years of teaching this course

Getting every student ready for every class

Abstract
Over the past decades there has been a concerted push away from passive lecturing to active engagement in the classroom. A successful implementation , of the so-called flipped classroom requires students to come to class prepared either by reading the textbook or watching a pre-recorded video. A variety approaches have been devised to get students to take responsibility for this , information transfer, but none manage to get all students to participate compromising the in-class activities. I will present a new approach to get every student to prepare for every class using a new social learning platform that uses a combination of intrinsic and extrinsic motivation factors to get every student ready for every class in a course