



PHYSICS AND ASTRONOMY COLLOQUIUM

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Oregon State University

“Paradigms in Physics: Revitalizing the Upper-Division Curriculum”

Abstract

The Paradigms in Physics Program at Oregon State University has totally reformed the entire upper-division curriculum for physics majors. This has involved both a rearrangement of content to better reflect the way professional physicists think about the field and also the use of a number of reform pedagogies which place responsibility for learning more firmly in the hands of the students. Along the way we are learning about what it takes to successfully design and implement large scale modifications in curriculum and to institutionalize and disseminate them. The particular emphasis will be on how are reforms have influenced how we teach about functions of several variables, especially the geometric scalar and vector fields of E & M and the non-geometric state variables in thermodynamics. I will share some of our joyful experiences and hard-learned lessons. Be prepared to participate!

Wednesday, October 03, 2018

3:30 p.m.

Bob Wright Centre Building

Room A104