Teaching Quantum Mechanics through Project-based Learning

GINTARAS DUDA, Creighton University — Project/Problem-based learning (PBL) is an active area of research within the physics education research (PER) community, however, work done to date has focused on introductory courses. This talk will explore research on upper division quantum mechanics, a junior/senior level course at Creighton, which was taught using PBL pedagogy with no in-class lectures. The talk will explore: 1. student learning in light of the new pedagogy and embedded meta-cognitive self-monitoring and reflective exercises and 2. the effect of the PBL curriculum on student attitudes and students’ epistemologies.