



PHYSICS COLLOQUIUM: Strategies for Increasing the Effectiveness of Active Learning in the Classroom

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Date:
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Time:
10:30 AM-11:50 AM



About The Speaker:

Kristina Callaghan is a lecturer in the physics department at UC Merced. She obtained a B.S. in Physics and Applied Mathematics from the University of Colorado at Boulder and completed an A.M. in Biophysics from Harvard University before transitioning her focus to teaching. She then earned a Master's in Teaching degree from the University of Washington and holds a Washington state teaching license with endorsements in physics and general science. Prior to joining UC Merced, she worked on multiple physics education research projects at Harvard and taught physics at both public and private high schools in Seattle, WA.

Abstract:

An increasing body of research has shown that students taught using active learning strategies achieve better learning outcomes compared to those taught using traditional methods. However, even though they learn more, students actively engaged in the classroom feel like they learn less compared to when taught using a traditional lecture style. In this talk, I will present results that quantify this disconnect between students' feeling of learning and actual learning in response to being actively engaged in the classroom. I will provide suggestions on how instructors can intervene to address this mismatch and thereby improve students' attitudes towards active learning techniques. Strategies from recent studies on how instructors can increase the effectiveness of homework assignments and online video summaries will also be discussed.

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