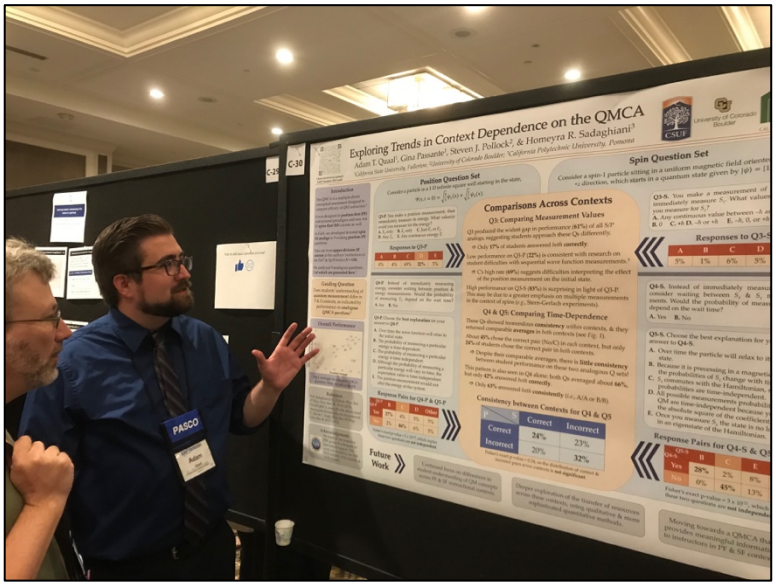
NSF IUSE: "Collaborative Research: Research as a base to develop adaptable curricula bridging instructional paradigms in Quantum Mechanics"

Dr. Gina Passante, Assistant Professor in the Physics Department, is a PI on an NSF funded project entitled "Research as a base to develop adaptable curricula bridging instructional paradigms in Quantum Mechanics". This is a collaborative project with Homeyra Sadaghiani from Cal Poly Pomona and Steven Pollock from the University of Colorado Boulder. The goals of this project are to investigate student learning of quantum mechanics in two different instructional paradigms and to develop materials that will improve instruction.



The research team recently hired Benjamin Schermerhorn as a postdoctoral researcher and has supported CSUF research students Adam Quaal and Anthony Arruda (and former CSUF student Chrystin Green). This summer the collaborative team has had three papers accepted to the 2018 Physics Education Research Conference Proceedings, including one co-authored by CSUF student Adam Quaal. Our materials (known as "Adaptable Curricular Exercises for Quantum Mechanics" or ACE-QM) are currently in beta testing at the three PI institutions and will be widely disseminated in Spring 2019. We will be facilitating a workshop at the American Association of Physics Teachers 2019 Summer Meeting on best practices for adapting materials to your classroom environment.