

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Going Beyond Calculation and Concepts: Students' Interpretation and Knowledge Structures in Quantum Mechanics. NOAH FINKELSTEIN, JESSICA HOEHN, University of Colorado Boulder — Learning quantum mechanics requires students to develop not only new mathematical skills and conceptual understanding, but also has students reason about what these mean and how to organize understanding of quantum mechanical principles, tools and concepts. Towards this instructional goal, we present current research that examines how students make interpretations, probes understanding of student ontologies, and curricula that explicitly addresses interpretation of quantum phenomena and student reasoning structures (ontologies).

Noah Finkelstein
University of Colorado Boulder

Date submitted: 27 Oct 2016

Electronic form version 1.4