Guide

Peer Instruction for Quantum Mechanics

Indicates a research-demonstrated benefit

Overview

A collection of multiple-choice and short answer questions for discussion and reflection in an upper-level undergraduate quantum mechanics course.

Type of Method	Instructional strategy, Curriculum supplement
Level	**Designed for:** Upper-level Undergraduate **Can be adapted for:** Graduate School , Intermediate
Setting	**Designed for:** Lecture - Small (<30 students) , Lecture - Large (30+ students), Recitation/Discussion Session, Studio
Coverage	Few topics with great depth, Many topics with less depth
Topics	Modern / Quantum
Instructor Effort	Low
Resource Needs	Projector
Skills	**Designed for:** Conceptual understanding , Making real-world connections, Metacognition
Research Validation	**Based on research into:** theories of how students learn , student ideas about specific topics **Demonstrated to improve:** conceptual understanding **Studied using:** cycle of research and redevelopment , student interviews , classroom observations , research at multiple institutions , peer-reviewed publication
Compatible Methods	Peer Instruction, PhET, JiTT, CGPS, Physlets, SCALE-UP, CAE TPS, New Model Course, TEFA, CU Modern, CU QM, QuILTs, Paradigms, Clickers
Similar Methods	Peer Instruction, Workbook for Introductory Physics, CAE TPS, TEFA, CU QM, QuILTs, Clickers

Developer(s)	Chandralekha Singh and PER team at the University of Pittsburgh
Website	http://www.phyast.pitt.edu/~cls/peer/

Teaching materials

You can access the resource material, which includes the "ConcepTests" for assessment with continuous feedback to the students, standarized assessment tools, reflective questions and the material for Just-In-Time Teaching (JITT) for quantum mechanics courses, by contacting the developer at clsingh@pitt.edu.

Resources, training, & community

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