



Canadian Association  
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## Making the Quantum Leap: Experiments in Quantum Physics Education

*Tuesday 10 June 2025 16:15 (30 minutes)*

Quantum mechanics is one of the central pillars of modern physics. However, for a variety of reasons - conceptual, mathematical, and philosophical - many students struggle to master this topic at the undergraduate level. In this talk, I will describe several ongoing projects at McMaster related to quantum physics education. I will present the preliminary results from our Upper Year Quantum Survey, a multi-year study which seeks to examine student (and instructor) attitudes towards the teaching and learning of quantum physics. I will then describe efforts to develop new hands-on demonstrations of quantum phenomena using neutron beams, a convenient example of wave-particle duality provided by the Canadian Neutron Beam Laboratory at the McMaster Nuclear Reactor.

### Keyword-1

Physics Education

### Keyword-2

Quantum Physics

### Keyword-3

Neutron Beams

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