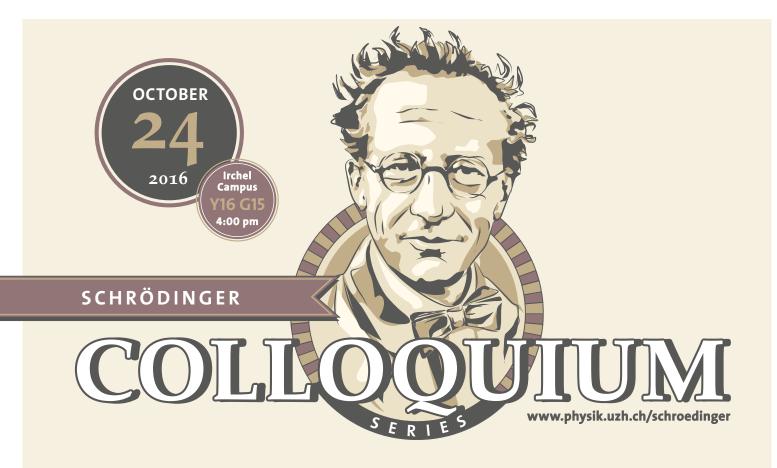


Faculty of Science



PROF. CHRIS QUIGG Fermi National Accelerator Laboratory What Quarkonium Taught Me about the Schrödinger Equation, and vice versa

The textbook approach to quantum mechanics involves explicit solutions to the Schrödinger equation that often lead through arcane properties of special functions. Virial theorems, sum rules, scaling laws, and semiclassical techniques provide insights and answers to many interesting questions, all without requiring

explicit solutions. The (re)invention of these methods was motivated by the discovery of quarkonium – bound states of heavy quarks. I will sketch the history of these hadronic atoms and show what simple quantum-mechanical arguments have taught us about the force between quarks.

