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Quantum Dynamics Between Quantum Optics and Quantum Information JEAN-FRANCOIS VAN HUELE, Brigham Young University — Quantum optics carefully describes different quantum states of light and suggests intelligent ways to control them for a variety of useful applications. Quantum information studies the storage and manipulation of information at the quantum level for usage in quantum technology. Underlying all this are physical interactions and time evolutions described by quantum mechanical models and operator algebra techniques which lend themselves to research projects at the undergraduate level. In this presentation I will survey the field and present some examples from student encounters with squeezing and Schrödinger cats, experienced during the Research for Undergraduate (REU) summer program at Brigham Young University.

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