



The Yale Society of Physics Students (SPS) presents

The Second Annual Howard L. Schultz Senior Prize Lecture

F. Duncan M. Haldane

2016 Nobel Laureate in Physics

Princeton University

**“Topological Quantum Matter, Entanglement,
and the Second Quantum Revolution”**

Thursday, April 11th 2019

SPL 57 @ 4:30pm

This is a public lecture — all are welcome!

Abstract: While the laws of quantum mechanics have remained unchanged and have passed all tests for the last eighty-five years, new discoveries about the exotic states that they allow, “entanglement”, and ideas from quantum information theory, have greatly changed our perspective, and some believe that a “second quantum revolution” is currently underway. The discovery of unexpected “topological states of matter”, and their possible use for “topologically-protected quantum information processing” is one of the important themes of these developments, and will be described.