

Spring 2025 Physics Colloquium

Friday, February 21st

3:00 PM

PAS 201 or Zoom

(<https://arizona.zoom.us/j/86395646910>)

Nandini Trivedi

Ohio State University



Fractionalized electrons and fractionalized spins in quantum materials

Abstract: The charge e and spin $\hbar/2$ of an electron are fundamental properties and yet in a quantum material they can fractionalize! My talk will tell the story of why fractionalization happens and how we can detect this behavior. These fractionalized excitations are promising candidates to create logical qubits for quantum computation.

Bio: Nandini Trivedi is a professor of physics at The Ohio State University. Her research focuses on quantum matter — the interplay of quantum mechanics and interactions to create emergent states of matter.

Trivedi got her undergraduate degree from the Indian Institute of Technology, Delhi and a Ph.D in physics in 1987 from Cornell University. After post-doctoral research at University of Illinois at Urbana-Champaign and State University of New York, Stony Brook, she joined Argonne National Laboratory as a staff scientist. In 1995 she joined the faculty of the Tata Institute of Fundamental Research, Mumbai. Since 2004 she has been a professor of physics at the Ohio State University.

** Refreshments served in PAS 218 at 2:30 PM – 3:00 PM **

