

Chez Pierre

Presents ...

Monday, September 28, 2026

12:00pm – 1:00pm

Duboc room - 4-331



Chez Pierre Seminar

Senthil Todadri, MIT

“Fractionalized metals in anyon fluids”

Doping a Fractional Quantum Anomalous Hall (FQAH) state can create a fluid of mobile anyons. Motivated by experiments on twisted MoTe₂, we propose that the resistive metal adjacent to the $2/3$ FQAH state is a “ Z_3 Orthogonal Metal”: a non-Fermi liquid with Fermi surfaces of charge- $1/3$ fermions coupled to a twisted Z_3 gauge field. We construct two such states, with 1 or 3 Fermi surfaces, which naturally have large resistivities; pairing yields a charge- $2e$ superconductor. We propose tests including fractional Josephson oscillations and fractional shot noise.