

# Higher groups and topological phases of matter

*Tuesday, 15 December 2020 17:00 (30 minutes)*

I will describe how symmetry structures appearing in quantum many-body systems can be understood within the framework of fusion categories. Quantum systems with “higher symmetry” structures naturally appear by generalising or weakening certain axioms of these fusion categories. I will touch upon various topological aspects of higher group symmetries such as symmetry protected topological phases, anomalies and topological gauge theories.

**Presenter:** Dr TIWARI, Apoorv (U. of Zurich)

**Session Classification:** Invited talks