

## **Webinar**

# **Systematic dynamical generation of higher order topological insulator and superconductor phases**

**Tanay Nag**

**RWTH Aachen University, Germany**

In recent times, the higher-order topological phases, harbouring boundary modes of lower dimension than their usual ones, have been proposed with unconventional bulk-boundary correspondence. Following a general protocol of periodically driving static first-order topological phases (supporting surface states) with suitable discrete symmetry breaking Wilson-Dirac masses, here we construct a hierarchy of higher-order static and Floquet topological phases in three dimensions<sup>[1]</sup>. We remarkably generalize this concept to topological superconductor with  $s$ -wave pairing<sup>[2]</sup>. We characterize these higher order topological phases with appropriate topological invariants.

### **Reference:**

1. Phys. Rev. B 103, 115308 (2021)
2. Phys. Rev. B 104, 134508 (2021)

***Monday, Nov 15<sup>th</sup> 2021***

***4:00 PM***