



## Weekly Seminar

### A study of 1D lattice models with exact fusion category symmetry

**Chenjie Wang**

*University of Hong Kong*

**Time: 3:00 pm, Mar.12, 2025 (Wednesday)**

**时间: 2025年3月12日 (周三) 下午3:00**

**Venue: Room w563, Physics building, Peking University**

**地点: 北京大学物理楼, 西563会议室**

#### Abstract

I will discuss a construction of a family of 1D quantum lattice models that respect unitary fusion category symmetry. This family can be thought of as edge models of 2D symmetry-enriched topological states. An interesting feature of these models is that they often (but may not always) exhibit a gapless critical phase, i.e., a gapless region of codimension zero in the parameter space, due to the presence of fusion category symmetry. I will discuss numerical results of some examples.

#### About the speaker

Chenjie Wang, Associate Professor at University of Hong Kong, graduated from University of Science and Technology of China in 2007 and obtained his PhD from Brown University in 2012. He has been working on transport in quantum Hall effects and theory of strongly correlated topological phases. His recent research interests include localization phenomenon and generalized symmetries in topological phases and quantum criticality.