



INVITATION

as part of the Mathematical Physics Theory Seminar

to the talk by

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on

“Higher-form symmetries and how to gauge them”

Abstract:

I will give a general introduction to higher-form symmetries and their gauging and discuss both of these in the context of defect TQFTs.

Following the insight that ordinary, group-like global symmetries can be described by topological codimension 1 defects, higher-form symmetries are the generalization to arbitrary codimension. A natural question is how to gauge (higher-form) symmetries from this perspective. I will briefly motivate the orbifold construction as a tool for gauging and present a new construction that produces a candidate orbifold datum from 2-group symmetries in 3d. Lastly, I will use this construction to recover a known class of orbifold data from a 0-form symmetry and show how its gauging can be undone by the gauging of an emergent 1-form symmetry.

Time: Tuesday, 8 April 2025, 2:00 p.m.

Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmannngasse 5, 5th floor