

Advanced Student Seminar: Gauge Theories

Winter Term 2023/2024

M. Zirnbauer (with S.-Y. Chen and S. Kumar)

- Conservation of magnetic flux as a 1-form symmetry
- Lattice gauge theory with chains and co-chains
- Ising gauge theory: Wegner-Wilson loop
- Compact gauge fields and infrared catastrophe
- Chern-Simons gauge theory: fractional quantum Hall effect
- Boson-vortex duality between insulators and superfluids
- Web of dualities in 2+1 spacetime dimensions
- Gauge fields: perspectives from differential geometry
- Yang-Mills gauge theory: instantons and theta vacuum
- Gauge fields in the Standard Model
- Deconfinement at high temperatures: Polyakov loop
- Abelian and non-Abelian magnetic monopoles

When: Thursdays, 12:00—13:30

Where: Seminar Room 0.01 ETP

Starts on: Thu, Oct 12, 2023