

## **New Directions in Topological Matter**

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## What we do

We are a theory group working in the field of condensed matter physics, and our research focuses on mathematical characterization and the study of experimental fingerprints of **topological phases of matter**. This includes topological aspects of electron energy bands in crystalline solids, notably in topological insulators, semimetals, and superconductors. We also investigate artificial systems (i.e., metamaterials and "synthetic matter"), including lattices with non-Euclidean geometry and emergent curvature, periodically driven setups, as well as dissipative systems with non-Hermitian Hamiltonians.



