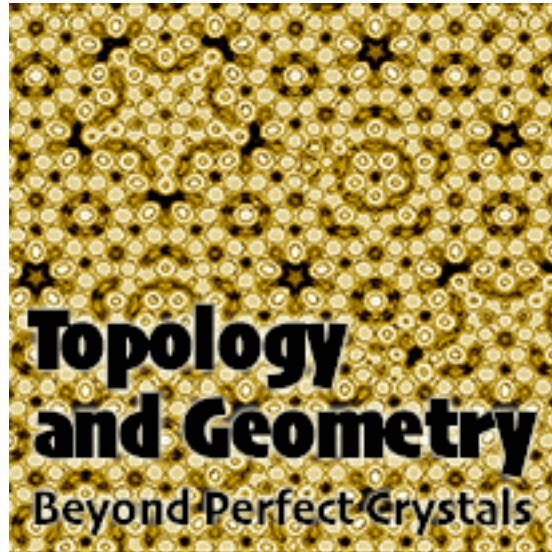


Topology and Geometry Beyond Perfect Crystals



Monday, May 26, 2025 - Friday, June 13, 2025

Albano Building 3

Scientific Program

Conference Schedule: Topology and Geometry Beyond Perfect Crystals

Week 1

Monday, May 26

- **10:30-11:30**: Julie Karel - *Probing topology in disordered quantum materials with magnetotransport studies*
- **13:30-14:30**: Tomáš Bzdušek - **Unraveling spectra and topology of hyperbolic lattices*
- **14:30-15:00**: Fika
- **17:00***: Reception / Poster Session

Tuesday, May 27

- **10:30-11:30**: Alexander Cerjan - **Classifying material topology using matrix homotopy*
- **13:30-14:30**: Benjamin Wieder - *Geometry-Enforced Topological Chiral Fermions in Amorphous Chiral Metals*
- **14:30-15:00**: Fika
- **15:00-16:00**: Daniel Varjas - **Isotropic 3D topological phases with broken time reversal symmetry*

Wednesday, May 28

- **10:30-11:30**: Pascal Simon - **From amorphous topological matter to impurities in superconductors*
- **13:30-14:30**: Anne Nielsen - *Topology in quasicrystals, fractals, and finite systems*
- **14:30-15:00**: Fika
- **18:00***: Dinner

Thursday, May 29

- *Ascension Day (Holiday)*

Friday, May 30

- **10:30-11:30**: Miguel Ángel Ramos - **Quest for amorphous superconductors of Bi-Sb alloys by irradiation with swift heavy ions*
- **13:30-14:30**: Paramita Dutta - *Effects of quasiperiodic sequences on superconductivity*
- **14:30-15:00***: Fika

Week 2

Monday, June 2

- **10:30-11:30**: B. Andrei Bernevig - *Twist to the M-ax(is): A new platform for twisting based on the M point*
 - **13:30-14:30**: Anton Akhmerov - **A roundabout for waves*
 - **14:30-15:00**: Fika
 - **15:00-16:00**: Adolfo G. Grushin - *Colloquium: *Topology and Geometry Beyond Perfect Crystals*
- Note other location: Auditorium 04 in Building 2 (C2207, 1 floor down from Proviant).

Tuesday, June 3

- **10:30-11:30**: Christophe Mora - **Real space topology for moiré materials*
- **13:30-14:30**: Nurit Avraham - *Visualizing intervalley coherent states in rhombohedral trilayer graphene*
- **14:30-15:00**: Fika
- **17:00***: Reception / Poster Session

Wednesday, June 4

- **10:30-11:30**: Emil Bergholtz - *Parafermions, topological crystals and exciton topological order in*

moiré superlattices

- **13:30-14:30:** Mohit Randeria - *Andreev versus Tunneling Spectroscopy of Unconventional Flat Band Superconductors*
- **14:30-15:00:** Fika

Thursday, June 5

- **10:30-11:30:** Jose Lado - **Solving correlated super-moire materials beyond one billion sites with tensor networks*
 - **13:30-14:30:** *Felix Flicker* - *Constrained Models Beyond Perfect Crystals*
 - **14:30-15:00:** Fika
 - **15:15-16:00:** *Frances Hellman* - *Albanova Colloquium: Hidden Order in Amorphous Materials: from gravitational wave detectors to topological materials*
- Note other location: Oskar Klein Auditorium (FR4)*
- **18:00*:** Dinner

Friday, June 6 [National Day]

- **10:30-11:30:** Pablo Jarillo-Herrero - *Next Generation Moiré Quantum Matter*
- Week 3

Monday, June 9

- **10:30-11:30:** Aires Ferreira - **Bridging disorder and topology via large-scale real-space simulation of condensed matter: The open-source Quantum KITE initiative*
- **13:30-14:30:** *Alexander Mirlin* - **Scaling of many-body localization transitions: Fock-space and real-space quantum dynamics and spectral observables*
- **14:30-15:00:** Fika

Tuesday, June 10

- **10:30-11:30:** Nandini Trivedi - **Signatures of Anyon Braiding in nonlinear spectroscopy*
- **13:30-14:30:** *Siddharth Parameswaran* - *Textured Exciton Insulators*
- **14:30-15:00:** Fika
- **17:00*:** Reception / Poster Session

Wednesday, June 11

- **10:30-11:30:** Päivi Törmä - **Two topics beyond perfect crystals: quantum geometry of evanescent surface states in rhombohedral graphite, and topological charges in quasicrystals*
- **13:30-14:30:** *Hermann Schulz-Baldes* - **Detecting local topology with the spectral localizer*
- **14:30-15:00:** Fika

Thursday, June 12

- **10:30-11:30:** Terry Loring - **Quantifiable local topology protection in quantum materials*
- **13:30-14:30:** *Julia Hannukainen* - **Local Topological Markers: A one-particle density matrix approach for characterizing the topology of interacting and disordered states*
- **14:30-15:00:** Fika
- **18:30:** Dinner

Friday, June 13

- **10:30-11:30:** Christian Spånslätt Rugarn - **"While my Hall bar gently heats" - Probing topological edge structures with thermal transport*
- **13:30-14:30:** *Andrej Mesaros* - *Extracting band topology from real-space response to impurities in TMD superconductors and semiconductors*

- 14:30-15:00*: Fika

Group Picture!