Curriculum Vitae

# Anastasiia SKURATIVSKA

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arXiv and Scholar

## *Biographical Data*

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| Date and Place of Birth | January 6, 1995, Zhytomyr, Ukraine |
| Citizenship | Ukraine |

## *Education*

**Ph.D. in Condensed Matter Physics** — 09/2018 - 06/2022
University of Zürich, Switzerland
*Advisor: Dr. Mark H Fischer (in the group of Prof. Titus Neupert)*

**MSc. in Physics** — 09/2016 - 07/2018
University Paris Saclay, Orsay, France
*Advisor: Dr. Pascal Simon*

**BSc. in Physics** — 09/2012 - 07/2016
Kyiv National University, Ukraine

## *Research Experiences*

Postdoctoral Researcher, DIPC, Spain — 07/2022 - present
*Advisors: Miguel A. Cazalilla and Dario Bercioux*

## *Teaching Assistance*

| | |
|---|---|
| Undergraduate course ‘Thermodynamics’, UZH | Fall, 2021 |
| Graduate course ‘Computational quantum physics’, UZH & ETH Zürich | Spring, 2021 |
| Undergraduate course ‘Linear algebra’, UZH | Fall, 2020 |
| Graduate course ‘Theory of Solid State Physics’, UZH & ETH Zürich | Spring, 2020 |
| Undergraduate course ‘Thermodynamics’, UZH | Fall, 2019 |
| Graduate course ‘Theory of Solid State Physics’, ETH Zürich | Spring, 2019 |

## *Research Interests*

topological phases of matter
unconventional superconductivity
flatband and Moiré physics
quantum magnetism

## *Computer skills*

Python, Mathematica, Julia, first-principle calculations, DMRG method using ITensor

## *Languages*

Ukrainian (native), English (fluent)
German, French, Italian (basic)

## *Awards*

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| The Forschungskredit grant from the University of Zürich | 2019 - 2020 |
| University Paris-Saclay International Master's Scholarship | 2016 - 2018 |

## *Presentations at Schools and Conferences*

- Quantum Information and Quantum Matter Conference, Madrid, Spain (May, 2023)
  *"Robust spin polarization of YSR states in FMI/SC heterostructure" (Talk)*
- Seminar at the University of Zurich, Switzerland (May, 2023)
  *"Yu-Shiba-Rusinov states of quantum impurities in spin-split superconductors" (Talk)*
- DPG meeting, Dresden, Germany (March, 2023)
  *"Yu-Shiba-Rusinov states of quantum impurities in spin-split superconductors" (Talk)*
- Seminar at the University of Leiden, the Netherlands (Nov, 2021)
  *"Flat bands through adatom-superlattice engineering on graphene" (Talk)*
- Swiss and Austrian Physics Society Meeting, Innsbruck, Austria (Sept 2021)
  *"Topologically fragile flat bands through adatom-superlattice engineering on graphene" (Poster)*
- APS March Meeting, online (March 2021)
  *"Fragile topological flat bands through adatom-superlattice engineering on graphene" (Talk)*
- Korrelationstage, online (April 2021)
  *"Fragile topological flat bands through adatom-superlattice engineering on graphene" (Poster)*
- University of Zürich, Switzerland (Oct, 2019)
  *"Atomic limit and inversion-symmetry indicators for topological superconductors" (Seminar)*
- The Capri Spring School on Transport in Nanostructures, Capri, Italy (May 2019)
- 8th MaNEP Winter School on symmetry and topology, Saas-Fee, Switzerland (Jan 2019)

## *Conference organization*

Opportunities from local noise spectroscopy, Lorentz Center, Leiden (2023)

**A. Skurativska**, T. Neupert, and M. H. Fischer. “Atomic limit and inversion-symmetry indicators for topological superconductors”. Phys. Rev. Research, 2, 013064, (2020).

M. Denner, **A. Skurativska**, F. Schindler, M. H. Fischer, R. Thomale, T. Bzdušek, and T. Neupert. “Exceptional topological insulators”. Nat. Communications 12, 5681 (2021).

**A. Skurativska**, S. S. Tsirkin, T. Neupert, and M. H. Fischer. “Flat bands with fragile topology through superlattice engineering on single-layer graphene”. Phys. Rev. Research, 3, L032003 (2021).

**A. Skurativska**, M. Sigrist, and M. H. Fischer. “Spin response and topology of a staggered-Rashba superconductor”. Phys. Rev. Research, 3, 0033133 (2021).

**A. Skurativska**, J. Ortuzar, D. Bercioux, F. S. Bergeret, and M. A. Cazalilla. “Robust spin polarization of Yu-Shiba-Rusinov states in superconductor/ferromagnetic insulator heterostructures”. Phys. Rev. B 107, 224507 (2023).

C. H. Huang, **A. Skurativska**, F. S. Bergeret, and M. A. Cazalilla. “Probing Magnetic and Triplet Correlations in Spin-Split Superconductors with Magnetic Impurities”. arXiv:2402.07184 (2024)