

# Arkadij Bojko

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preferred pronouns - he, him, his

## LANGUAGES

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- **Czech, Russian:** native
- **English:** TOEFL 119/120
- **German:** ÖSD Zertifikat C2

## EDUCATION

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### University of Oxford

DPhil in Mathematics

2018–2021

- Thesis: *Wall-crossing and orientations for invariants counting coherent sheaves on CY fourfolds*
- supervised by Dominic Joyce

### University of Vienna

M.Sc. in Mathematics

2017–2018

- Thesis: *Stability conditions on quivers and semistable noncommutative curve counting*
- supervised by Ludmil Katzarkov and George Dimitrov

### University of Vienna

M.Sc. in Physics

2016–2018

- Thesis: *Geometry of Twisted D-branes in Group Manifolds*
- supervised by Stefan Fredenhagen

### University of Vienna

B.Sc. in Physics

2013–2016

- Thesis: *Lovelock Theory*
- supervised by Piotr Chrusciel

## EMPLOYMENT

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- **Academia Sinica** Institute Research Scholar (5 years) since 2023
- **ETH Zürich** Postdoctoral researcher, mentored by Rahul Pandharipande 2021–2023

## DISTINCTIONS

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- Institute Research Scholarship at Academia Sinica 2023–2028
- Commendation for my PhD thesis from Merton College 2021
- Commendation for my PhD thesis from the Division of Mathematical, Physical and Life Sciences Graduate School Office 2021
- Clarendon Scholarship at the University of Oxford 2018–2021
- University of Vienna, Department of Physics Dean's list (Master's program) 2016–2018
- Performance scholarship of the University of Vienna 2013–2017

## COOPERATION PARTNERS

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- **Previous:** George Dimitrov, Woonam Lim, Miguel Morreira, Jiahui Huang
- **Current:** Emile Bouaziz, Henry Liu, Georg Oberdieck

## MOST IMPORTANT TALKS

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- Universal Virasoro Constraints for Quivers with Relations, University of Vienna, Special Algebraic Geometry Seminar, December 2023.
- Wall-crossing for Calabi–Yau fourfolds and applications, University of Oslo, Oslo STEW 2023, December 2023.
- Equivariant Segre and Verlinde series for Quot-schemes, Stockholm University, Algebra and geometry seminar, March 2023.
- An intuitive approach for sheaf-theoretic Virasoro constraints, Academia Sinica, Algebraic geometry seminar, February 2022.
- Wall-crossing for Calabi–Yau fourfolds and applications, University of Oxford, Simon’s Collaboration Meeting: Algebraic Geometry, Gauge Theory and the Swampland Conjectures, January 2023.
- Wall-crossing for Virasoro constraints, Utrecht University, Utrecht Geometry Center Seminar, November 2022.
- Virasoro for moduli of sheaves: the wall-crossing, Diablerets, Helvetic Algebraic Geometry Seminar, June 2022.
- Wall-crossing for Hilbert schemes of fourfolds and Quot-schemes of surfaces, Imperial College London, The London geometry and topology seminar, June 2021
- Wall-crossing for Hilbert schemes on CY 4-folds I & II, ETH, Algebraic geometry and moduli seminar, March 2021.
- Orientations for DT invariants on quasi-projective Calabi–Yau 4-folds, Nottingham, Algebraic geometry seminar, November 2020.

## IMPORTANT UPCOMING TALKS

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- The Hong Kong University of Science and Technology, May 2024.
- Kavli Institute for the Physics and Mathematics of the Universe, July 2024.
- Korea Institute for Advanced Study, July 2024.
- Heidelberg University, August 2024.
- The University of Edinburgh, August 2024.

## TEACHING AND ORGANIZING

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| • <b>Seminar organizer</b> at Academia Sinica<br><i>Algebraic Geometry Seminar</i>          | Since 2023       |
| • <b>Instructor</b> at ETH Zürich<br><i>Derived Algebraic Geometry</i>                      | Spring term 2023 |
| • <b>Instructor</b> at ETH Zürich<br><i>Derived Algebraic Geometry</i>                      | Spring term 2022 |
| • <b>Lunch-seminar organizer</b> at ETH Zürich<br><i>Scattering diagrams</i>                | Winter term 2021 |
| • <b>Tutor</b> at the University of Oxford<br><i>String Theory I (two separate classes)</i> | Hilary 2021      |
| • <b>Tutor</b> at the University of Oxford<br><i>Infinite Groups</i>                        | Michaelmas 2020  |
| • <b>Tutor for Merton College</b> at the University of Oxford                               | Trinity 2020     |

*Projective Geometry*

- **Teaching assistant** at the University of Oxford  
*Algebraic Topology*

Michaelmas 2018

- **Teaching Assistant** at the University of Oxford  
*Introduction to Representation Theory*

Michaelmas 2018

## SUPERVISION AND MENTORING

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- **Yifan Zhao** Master's thesis: Pair-counting theories for local Calabi–Yau fourfolds 2021–2022
- **Huang Jiahui** Master's thesis: Equivariant Segre and Verlinde invariants for Quot schemes 2022–2023