

FLORIAN KRANHOLD

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POSITIONS

- SINCE OCT 2022 KARLSRUHE INSTITUTE OF TECHNOLOGY
Postdoctoral researcher (Wissenschaftlicher Mitarbeiter)
- APR 2022 – SEP 2022 UNIVERSITY OF BONN
Postdoctoral researcher (Wissenschaftlicher Mitarbeiter)

EDUCATION

- 2018 – 2022 DOCTORATE (DR. RER. NAT.) IN MATHEMATICS
University of Bonn, Max Planck Institute for Mathematics in Bonn
Member of the International Max Planck Research School
Thesis: *Coloured topological operads and moduli spaces of surfaces
with multiple boundary curves*
Advisor: Carl-Friedrich Bödigheimer
Mark: 1.0 ('magna cum laude')
- 2015 – 2018 MASTER OF SCIENCE (M. SC.) IN MATHEMATICS
Universities of Tübingen and Bonn
Thesis: *Moduli spaces of Riemann surfaces and symmetric products*
Advisor: Carl-Friedrich Bödigheimer
Mark: 1.0 ('excellent')
- 2012 – 2015 BACHELOR OF SCIENCE (B. SC.) IN MATHEMATICS
University of Tübingen
Thesis: *Projektive Kurven, Riemannsche Flächen und Funktionenkörper*
Advisor: Jürgen Hausen
Mark: 1.0 ('very good')

SCHOLARSHIPS

- 2019 – 2021 STUDIENSTIFTUNG DES DEUTSCHEN VOLKES
PhD stipend („Promotionsstipendium“)
- 2018 – 2022 INTERNATIONAL MAX PLANCK RESEARCH SCHOOL
PhD stipend (until FEB 2020), Grant agreement (since MAR 2020)
- 2012 – 2018 STUDIENSTIFTUNG DES DEUTSCHEN VOLKES
Scholarship

PUBLICATIONS

5. F. Kranhold. 'A stable splitting of factorisation homology of generalised surfaces'. [arXiv:2310.07688](#).
4. C.-F. Bödigheimer, F. Boes, and F. Kranhold. 'Computations in the unstable homology of moduli spaces of Riemann surfaces'. [arXiv:2209.08148](#).
3. A. Bianchi, F. Kranhold, and J. Reinhold. 'Parametrised moduli spaces of surfaces as infinite loop spaces'. In: *Forum Math. Sigma* **10**, e39 (2022), [arXiv:2105.05772](#).
2. F. Kranhold. 'Configuration spaces of clusters as E_d -algebras'. To appear in *Homotopy Homol. Appl.*, [arXiv:2104.02729](#).
1. A. Bianchi, F. Kranhold. 'Vertical configuration spaces and their homology'. In: *Q. J. Math.* **73** (4 2022), pp. 1279–1306, [arXiv:2103.12137](#).

TALKS

- OCT 2023 *A stable splitting of factorisation homology of generalised surfaces* (invited), Oberseminar Topologie, Münster
- AUG 2023 *A stable splitting of factorisation homology*, Workshop on string topology, Dublin
- FEB 2022 *Parametrised moduli spaces of surfaces as infinite loop spaces*, Working group of Oscar Randal-Williams, Cambridge
- DEC 2021 *Parametrised moduli spaces of surfaces as infinite loop spaces* (invited), Oberseminar Global Analysis and Geometry, Regensburg (online)
- NOV 2021 *Configuration spaces of clusters as E_d -algebras* (invited), Workshop on homology and homotopy of configuration spaces, Copenhagen
- NOV 2021 *Vertical configuration spaces and their homological stability* (invited), Seminar Moduli and Friends, Bucharest (online)
- SEP 2021 *Parametrised moduli spaces of surfaces as infinite loop spaces* (invited), Topology seminar, Purdue University, Indiana (online)
- JUL 2021 *Parametrised moduli spaces of surfaces as infinite loop spaces*, Young Topologists Meeting, Stockholm (online)
- JUN 2021 *Parametrised moduli spaces of surfaces as infinite loop spaces*, TopFlavours seminar, Warwick (online)
- MAY 2020 *Clustered configurations and asphericity* (invited), Seminar on arrangements and symmetries, Bochum (online)
- JAN 2020 *Operadic actions on moduli spaces of Riemann surfaces* (invited), Topology Oberseminar, Bochum
- SEP 2019 *Operadic actions on moduli spaces of Riemann surfaces* (invited), Working group of Linus Kramer, Münster

CONFERENCES AND WORKSHOPS ATTENDED

- SEP 2023 Conference: *Moduli and Friends*, Bucharest
AUG 2023 Workshop: *String Topology*, Dublin
JUL 2023 Workshop: *Stability in topology, arithmetic, and representation theory*, Purdue (online)
MAY 2023 Workshop: *Configuration spaces and related topics*, Paris
JUL 2022 Workshop: *Topologie*, Oberwolfach
JUL 2022 Young Topologists Meeting, Copenhagen
NOV 2021 Workshop: *Homology and homotopy of configuration spaces*, Copenhagen
JUL 2021 Young Topologists Meeting, Stockholm (online)
JUN 2021 Masterclass: *High-dimensional cohomology of moduli spaces*, Copenhagen (online)
JUN 2021 TopFlavours seminar, Warwick (online)
MAY 2021 Seminar: *Cellular E_k -algebras*, Oberwolfach (online)
AUG 2020 24H Operad Pop-Up (online)
SEP 2019 Workshop: *Automorphisms of manifolds*, Bonn
JUL 2019 Young Topologists Meeting, Lausanne
SINCE 2018 Several NRW Topology Meetings, Münster/Bochum/Düsseldorf

TEACHING

- WINTER 2023/24 Lecture: *Elementare Geometrie*, Assistant, Karlsruhe
SUMMER 2023 Seminar: *Cohomology and Characteristic Classes*, Co-organiser, Karlsruhe
WINTER 2022/23 Lecture: *Algebraic Topology*, Assistant, Karlsruhe
SUMMER 2022 Lecture: *Topology II*, Assistant, Bonn
Lecture: *Einführung in die Geometrie und Topologie*, Assistant, Bonn
SUMMER 2020 Seminar: *Operads in Algebra and Topology*, Co-organiser, Bonn
SUMMER 2016 Lecture: *Algebra*, Repetitorium, Tübingen
2017 – 2021 Student teaching assistant at the University of Bonn (9 terms)
2014 – 2017 Student teaching assistant at the University of Tübingen (5 terms)

Courses given at academies of the *Club der Ehemaligen der Deutschen SchülerAkademien e. V.*

- WINTER 2023/24 *Einführung in die Kategorientheorie*
SPRING 2023 *West Side Story* (joint with R. Forster)
SUMMER 2018 *Einführung in die Algebraische Topologie*
SINCE 2015 Several courses on *Musiktheorie* (partially joint with C. Mertz)