JULIE BANNWART

PERSONAL INFORMATION

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Institut für Mathematik (FB 08)
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Date of birth: 12th July 2004
Nationality: French
Pronouns: she/her

EDUCATION

04/2025 –	**PhD student in Mathematics**, Johannes Gutenberg-Universität (JGU), Mainz, Germany. Advisor: Prof. Tom Bachmann.
09/2024 – 03/2025	Semester in JGU, Mainz, Germany, to write my **Master's thesis**: *On the real realization of the motivic spectrum* ko. Advisor: Prof. Tom Bachmann.
09/2023 – 03/2025	**MSc in Mathematics**, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.
07/2023 – 09/2023	**Summer internship** in the EPFL Laboratory for Topology and Neurosciences ("Summer in the lab" program). Work on N_∞-operads and model structures on poset categories.
09/2020 – 07/2023	**BSc in Mathematics**, EPFL, Switzerland. Thesis: *Model categories and homotopy: the example of topological spaces and simplicial sets.* Advisor: Prof. Jérôme Scherer.
07/2020	**Baccalauréat**, in Forbach, France.

RESEARCH INTERESTS

- Unstable and stable motivic homotopy theory.
- Variants of algebraic K-theory.
- Higher algebra in general.

PREPRINTS

- *The real Betti realization of motivic Thom spectra and of very effective Hermitian K-theory,* https://www.arxiv.org/abs/2505.07297, May 2025.
- *Realization of saturated transfer systems on cyclic groups of order $p^n q^m$ by linear isometries N_∞ operads*, https://arxiv.org/abs/2311.01608, November 2023. (Submitted for publication)

PUBLICATION

- *When equivariant homotopy theory meets combinatorics* (survey article), to appear in Pittsburgh Interdisciplinary Mathematics Review, Vol. 3.

TEACHING EXPERIENCE

2025 Exercise sessions for the courses Algebraic topology II and Foundations of motivic homotopy theory, JGU.

2024 Student assistant for second year courses: rings & fields and group & category theory, EPFL.

2023 Student assistant for first year linear algebra, EPFL.

2022 Student assistant for first year linear algebra, EPFL.

2018-19 Tutoring at high school.