JULIE BANNWART

PERSONAL INFORMATION

Email address: bannwart.julie[at]gmail.com
Website: www.juliebannwart.com
University address:
Institut für Mathematik (FB 08)
Johannes Gutenberg-Universität
Staudingerweg 9
55128 Mainz, Germany

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.

TALKS

06/2025	Young Topologists Meeting 2025, Stockholm. "The real Betti realization of very effective Hermitian K-theory, and of motivic Thom spectra"
06/2025	AG Seminar homotopy theory, Regensburg. "The real Betti realization of motivic Thom spectra and of very effective Hermitian K-theory",

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.