Publications of Fritz Grimpen

Peer-reviewed articles

[1] **Fritz Grimpen** and Anastasios Stefanou. "On minimal flat-injective presentations over local graded rings." In: *Communications in Algebra* 54 (2026), pp. 430–444. DOI: 10.1080/00927872.2025.2526106. arXiv: 2410.17667 [math.AC].

Preprints

[2] **Fritz Grimpen**. "Relative homological algebra of filter modules." Nov. 2, 2026. arXiv: 2610.42080 [math.AC].

[3] **Fritz Grimpen**, Matthias Orth, and Anastasios Stefanou. "Relative Gröbner bases of modules and applications in persistence theory." 2026. arXiv: 2603.27149 [math.AC]. Submitted.

[4] **Fritz Grimpen** and Anastasios Stefanou. "Cofiltrations of spanning trees in multiparameter persistent homology." Mar. 2023. arXiv: 2312.00235v2 [math.AT].

Other publications

[5] **Fritz Grimpen**. *Minimal flat-injective presentations and their algorithmic challenge*. Poster at Applied Topology 2025, Poznań, Poland. July 2025.

[6] **Fritz Grimpen** and Anastasios Stefanou. "Persistence of complements of spanning trees." In: *Computational Geometry: Young Researchers Forum 2023*. Extended abstract. June 2023.

Theses

[7] **Fritz Grimpen**. "Constructing cycle generators for multiparameter persistent homology using spanning trees." Master's thesis. Department of Mathematics, University of Bremen, Oct. 28, 2022.

[8] **Fritz Grimpen**. "The Brunn–Minkowski and log-Brunn–Minkowski inequalities." Bachelor's thesis. Department of Mathematics, University of Bremen, 2019.