Publications

(21) *Heisenberg homology on surface configurations* (with C. Blanchet and A. Shaukat)
     Mathematische Annalen 393 (2025), 1989–2056   (68 pp.)

(20) *Compact and finite-type support in the homology of big mapping class groups* (with X. Wu)
     Journal of the London Mathematical Society 112 (2025), e70258   (35 pp.)

(19) *Polynomiality of surface braid and mapping class group representations* (with A. Soulié)
     Transactions of the American Mathematical Society 378 (2025), 5769–5843   (75 pp.)

(18) *When the lower central series stops: a comprehensive study for braid groups and their relatives*
     (with J. Darné and A. Soulié)
     Memoirs of the American Mathematical Society 309 (2025), 1563   (130 pp.)

(17) *The pro-nilpotent Lawrence-Krammer-Bigelow representation* (with A. Soulié)
     Journal of Pure and Applied Algebra 229.6 (2025), 107952   (39 pp.)

(16) *Action of subgroups of the mapping class group on Heisenberg homologies* (with C. Blanchet and A. Shaukat)
     Contemporary Mathematics 813 (2025), 235–255   (21 pp.)

(15) *On the homology of big mapping class groups* (with X. Wu)
     Journal of Topology 17.4 (2024), e12358   (41 pp.)

(14) *Topological representations of motion groups and mapping class groups – a unified functorial construction*
     (with A. Soulié)
     Annales Henri Lebesgue 7 (2024), 409–519   (111 pp.)

(13) *Big mapping class groups with uncountable integral homology* (with X. Wu)
     Documenta Mathematica 29.1 (2024), 159–189   (31 pp.)

(12) *Homology stability for asymptotic monopole moduli spaces* (with U. Tillmann)
     Proceedings of the Royal Society A 479 (2023), 20230300   (16 pp.)

(11) *Motivic homological stability of configuration spaces* (with G. Horel)
     Bulletin of the London Mathematical Society 55.2 (2023), 892–913   (22 pp.)

(10) *Point-pushing actions for manifolds with boundary* (with U. Tillmann)
     Groups, Geometry, and Dynamics 16.4 (2022), 1179–1224   (46 pp.)

(9) *The Burau representations of loop braid groups* (with A. Soulié)
     Comptes Rendus. Mathématique 360 (2022), 781–797   (17 pp.)

(8) *Configuration-mapping spaces and homology stability* (with U. Tillmann)
     Research in the Mathematical Sciences 8 (2021) no. 38   (45 pp.)

(7) *Homological stability for moduli spaces of disconnected submanifolds, I*
     Algebraic & Geometric Topology 21.3 (2021), 1371–1444   (74 pp.)

(6) *Triple-crossing number and moves on triple-crossing link diagrams* (with C. Adams and J. Hoste)
     Journal of Knot Theory and Its Ramifications 28.11 (2019), 1940001   (20 pp.)

(5) *Twisted homological stability for configuration spaces*
     Homology, Homotopy and Applications 20.2 (2018), 145–178   (34 pp.)

(4) *Scanning for oriented configuration spaces* (with J. Miller)
     Homology, Homotopy and Applications 17.1 (2015), 35–66   (32 pp.)

(3) *A twisted homology fibration criterion and the twisted group-completion theorem* (with J. Miller)
     Quarterly Journal of Mathematics 66.1 (2015), 265–284   (20 pp.)

(2) *On homological stability for configuration spaces on closed background manifolds* (with F. Cantero)
     Documenta Mathematica 20 (2015), 753–805   (53 pp.)

(1) *Homological stability for oriented configuration spaces*
     Transactions of the American Mathematical Society 365 (2013), 3675–3711   (37 pp.)

Preprints

(26) *Embedding groups into acyclic groups* (with X. Wu)
     arXiv:2510.16879   (19 pp.)

(25) *Lawrence-Bigelow representations, bases and duality* (with C. Anghel)
     arXiv:2011.02388   (25 pp.)

(24) *Stability for moduli spaces of manifolds with conical singularities*
     arXiv:1807.07558   (29 pp.)

(23) *A comparison of twisted coefficient systems*
     arXiv:1712.06310   (31 pp.)

(22) *Homological stability for subgroups of surface braid groups* (with T. Tran)
     arXiv:1410.0923   (10 pp.)

Chapters of books

(A)   Appendix to "*Lectures on Invertible Field Theories*" by S. Galatius (with A. Debray and S. Galatius)
     IAS/Park City Mathematics Series 28 (2021), 380–400

Theses

(II)   *Moduli spaces and their fundamental groups: homology, representations and lower central series*
     Habilitation thesis, Institute of Mathematics of the Romanian Academy
     Submitted in January 2024; defended in June 2024.
     Examiners: Louis Funar (Grenoble), Sergiu Moroianu (IMAR), Victor Vuletescu (Bucharest)
     Thesis text available at: mdp.ac/habilitation/habilitation-thesis.pdf

(I)   *Configuration spaces and homological stability*
     DPhil thesis, University of Oxford
     Submitted in December 2012; defended in February 2013.
     Supervisor: Ulrike Tillmann
     Examiners: Graeme Segal (Oxford), Nathalie Wahl (Copenhagen)
     Archived in the Oxford University Research Archive
     URL: https://ora.ox.ac.uk/objects/uuid:7e056dbd-2cdd-4eac-9473-53f750371f9a