

## Publications

- (20) *Heisenberg homology on surface configurations* (with C. Blanchet and A. Shaukat)  
To appear in **Mathematische Annalen** (cf. [arXiv:2109.00515](#), 59 pp.)
- (19) *Polynomiality of surface braid and mapping class group representations* (with A. Soulié)  
To appear in **Transactions of the American Mathematical Society** (cf. [arXiv:2302.08827](#), 58 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

- (25) *Compact and finite-type support in the homology of big mapping class groups* (with X. Wu)  
[arXiv:2405.03512](#) (20 pp.)
- (24) *Lawrence-Bigelow representations, bases and duality* (with C. Anghel)  
[arXiv:2011.02388](#) (25 pp.)
- (23) *Stability for moduli spaces of manifolds with conical singularities*  
[arXiv:1807.07558](#) (29 pp.)
- (22) *A comparison of twisted coefficient systems*  
[arXiv:1712.06310](#) (31 pp.)
- (21) *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](https://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>