

Publications and Preprints:

1. *On unification of colored annular \mathfrak{sl}_2 knot homology* (with A. Beliakova, M. Hogancamp, and K. Putyra), submitted, available at arXiv:2305.02977, 47 pages
2. *On the functoriality of $sl(2)$ tangle homology* (with A. Beliakova, M. Hogancamp, and K. Putyra), Algebraic & Geometric Topology, **23** (2023) 1303–1361
3. *Odd annular Bar-Natan category and $\mathfrak{gl}(1|1)$* (with C. Necheles), submitted, available at arXiv:2206.01892, 83 pages
4. *An action of $\mathfrak{gl}(1|1)$ on odd annular Khovanov homology* (with J. E. Grigsby), Mathematical Research Letters, **27**(3) (2020) 711–742
5. *Quantum Link Homology via Trace Functor I* (with A. Beliakova and K. Putyra), Inventiones Mathematicae, **215**(2) (2019) 383–492
6. *Annular Khovanov-Lee homology, braids, and cobordisms* (with J. E. Grigsby and A. M. Licata), Pure and Applied Mathematics Quarterly, Special Issue in Honor of Simon Donaldson, **13**(3) (2017) 389–436 (published online on November 12, 2018)
7. *Annular Khovanov homology and knotted Schur-Weyl representations* (with J. E. Grigsby and A. M. Licata), Compositio Mathematica, **154**(3) (2018) 459–502
8. *An elementary fact about unlinked braid closures* (with J. E. Grigsby), AWM Springer Series, Advances in the Mathematical Sciences, (2016) 93–101
9. *A note on the combinatorics of lens space d -invariants* (with M. I. Doig), submitted, available at arXiv:1505.06970, updated in 2022, 10 pages
10. *Sutured Khovanov homology, Hochschild homology, and the Ozsváth-Szabó spectral sequence* (with D. Auroux and J. E. Grigsby), Transactions of the American Mathematical Society, **367**(10) (2015) 7103–7131
11. *Khovanov-Seidel quiver algebras and bordered Floer homology* (with D. Auroux and J. E. Grigsby), Selecta Mathematica, **20**(1) (2014) 1–55
12. *On Gradings in Khovanov homology and sutured Floer homology* (with J. E. Grigsby), Contemporary Mathematics **560** (2011) 111–128
13. *On the naturality of the spectral sequence from Khovanov to Heegaard Floer homology* (with J. E. Grigsby), International Mathematics Research Notices, **2010**(21) (2010) 4159–4210
14. *Khovanov homology, sutured Floer homology, and annular links* (with J. E. Grigsby), Algebraic & Geometric Topology, **10** (2010) 2009–2039
15. *Mutation invariance of Khovanov homology over \mathbb{F}_2* , Quantum Topology, **1**(2) (2010) 111–128

16. *On the Colored Jones Polynomial, Sutured Floer homology, and Knot Floer homology*, (with J. E. Grigsby), *Advances in Mathematics*, **223**(6) (2010) 2114–2165
17. *A remark on the topology of (n,n) Springer varieties*, arXiv:0908.2185
18. *Categorification of the colored Jones polynomial and Rasmussen invariant of links*, (with A. Beliakova), *The Canadian Journal of Mathematics*, **60** (2008) 1240–1266
19. *A spanning tree model for Khovanov homology*, *Journal of Knot Theory and Its Ramifications*, **17**(12) (2008) 1561–1574
20. *Contributions to Khovanov homology*, Ph.D. Thesis, University of Zurich (2007)
21. *Khovanov Homology and Conway Mutation*, arXiv:math/0301312