

List of publications
Eugene Gorsky

Publications

1. (with O. Kivinen and J. Simental) Algebra and geometry of link homology. To appear in Bulletin of the London Mathematical Society. arXiv:2108.10356
2. (with J. Simental, M. Vazirani) Parabolic Hilbert schemes via the Dunkl-Opdam subalgebra. Transformation Groups.
<https://doi.org/10.1007/s00031-022-09743-7>
3. (with T. Lidman, B. Liu, A. Moore) Triple linking numbers and Heegaard Floer homology. International Mathematics Research Notices.
<https://doi.org/10.1093/imrn/rnab368>
4. (with M. Hogancamp) Hilbert schemes and y -ification of Khovanov-Rozansky homology. Geometry & Topology 26 (2022) 587–678.
5. (with M. Hogancamp, P. Wedrich) Derived traces of Soergel categories. International Mathematics Research Notices 2022 (2022), no.15, 11304–11400.
6. (with A. Neguț and J. Rasmussen) Flag Hilbert schemes, colored projectors and Khovanov-Rozansky homology. Advances in Mathematics 378 (2021) 107542.
7. (with G. Hawkes, A. Schilling, J. Rainbolt) Generalized q, t -Catalan numbers. Algebraic Combinatorics 3 (2020) no. 4, 855–886.
8. (with B. Liu and A. Moore) Surgery on links of linking number zero and the Heegaard Floer d -invariant. Quantum Topology 11 (2020), 323–378.
9. (with Y. Bai and O. Kivinen) Quadratic ideals and Rogers-Ramanujan recursions. The Ramanujan Journal, The Ramanujan Journal 52 (2020), 67–89.
10. (with E. Carlsson and A. Mellit) The $\mathbb{A}_{q,t}$ algebra and parabolic flag Hilbert schemes. Mathematische Annalen 376 (2020), 1303–1336.
11. (with M. Mazin and M. Vazirani) Recursions for rational q, t -Catalan numbers. Journal of Combinatorial Theory, Series A 173 (2020), Article 105237.
12. (with M. Hogancamp, A. Mellit and K. Nakagane) Serre duality for Khovanov-Rozansky homology. Selecta Mathematica, 25 (2019), no. 5, Article 79.
13. Introduction to Heegaard Floer homology. Russian Mathematical Surveys, 74:1 (2019), 1–35.
14. (with M. Borodzik) Immersed concordances of links and Heegaard Floer homology. Indiana Univ. Math. J. 67 (2018), 1039–1083.
15. (with A. Némethi) On the set of L-space surgeries for links. Advances in Mathematics 333 (2018), 386–422.
16. (with S. M. Gusein-Zade) Homological indices of collections of 1-forms. Bulletin of the London Mathematical Society 50 (2018), no.2, 261–273.
17. (with S. Gukov and M. Stošić) QuadruPLY-graded colored homology of knots. Fundamenta Mathematicae 243 (2018) , 209–299.
18. Combinatorics of HOMFLY homology. Appendix to "The Hilbert scheme of a plane curve singularity and the HOMFLY homology of its link" by A. Oblomkov, J. Rasmussen and V. Shende. Geometry & Topology 22 (2018) 645–691.
19. (with J. Hom) Cable links and L-space surgeries.

- Quantum Topology 8 (2017), no.4, 629-666.
20. (with M. Mazin and M. Vazirani) Rational Dyck Paths in the Non Relatively Prime Case. *Electronic Journal of Combinatorics*, 24 (2017), no. 3, paper #P3.61
 21. (with A. Neguţ) Infinitesimal change of stable basis. *Selecta Mathematica, New Series*, 23 (2017), no. 3, 1909–1930.
 22. (with M. Mazin) Rational Parking Functions and LLT Polynomials. *Journal of Combinatorial Theory, Series A*, 140 (2016), 123-140.
 23. (with M. Mazin and M. Vazirani) Affine permutations and rational slope parking functions. *Trans. Amer. Math. Soc.* 368 (2016), 8403-8445.
 24. (with A. Némethi) Links of plane curve singularities are L-space links. *Algebraic and Geometric Topology* 16 (2016) 1905-1912.
 25. (with A. Némethi) Lattice and Heegaard–Floer homologies of algebraic links. *Int. Math. Res. Not. IMRN* 2015, no. 23, 12737–12780.
 26. (with P. Etingof and I. Losev) Representations of Rational Cherednik algebras with minimal support and torus knots. *Advances in Mathematics* **277** (2015), 124-180.
 27. (with A. Neguţ) Refined knot invariants and Hilbert schemes. *Journal de Mathématiques Pures and Appliquées* 104 (2015), 403-435.
 28. (with L. Lewark) On stable sl_3 -homology of torus knots. *Experimental Mathematics* **24** (2015), 162–174.
 29. (with A. Oblomkov, J. Rasmussen and V. Shende) Torus knots and the rational DAHA. *Duke Math. J.* **163** (2014), no. 14, 2709–2794.
 30. The equivariant Euler characteristic of moduli spaces of curves. *Advances in Mathematics* **250** (2014), 588–595.
 31. (with M. Mazin) Compactified Jacobians and q, t -Catalan numbers, II. *Journal of Algebraic Combinatorics*, **39** (2014), no. 1, 153–186.
 32. (with A. Oblomkov and J. Rasmussen) On stable Khovanov homology of torus knots. *Experimental Mathematics*, **22** (2013), 265–281.
 33. Arc spaces and DAHA representations. *Selecta Mathematica, New Series*, **19** (2013), no. 1, 125–140.
 34. (with M. Mazin) Compactified Jacobians and q, t -Catalan Numbers, I. *Journal of Combinatorial Theory, Series A*, **120** (2013) 49–63.
 35. q, t -Catalan numbers and knot homology. *Zeta Functions in Algebra and Geometry*, 213–232. *Contemp. Math.* **566**, Amer. Math. Soc., Providence, RI, 2012.
 36. Combinatorial computation of the motivic Poincare series. *Journal of Singularities*, **3** (2011), 48–82
 37. Adams Operations and Power Structures. *Moscow Mathematical Journal*, **9** (2009), no. 2, 305–323.
 38. On the S_n -equivariant Euler characteristic of moduli spaces of hyperelliptic curves. *Mathematical Research Letters*, **16** (2009), no. 4, pp. 591–603.
 39. Symmetries of some motivic integrals. *Russian Mathematical Surveys*, **63** (2008), no. 4 (382), 179–180.
 40. On the motivic measure on the space of functions. *Revista Matematica Complutense*, **20** (2007), no. 2, 507–521.

41. Motivic integration and functional equations. Algebra and Analysis (Journal of the St. Petersburg Mathematical Society), **19** (2007), no. 4, 92–112.
42. On divisorial filtrations on sheaves. Mathematical notes, **79** (2006), no. 6, 825–837.
43. (with V. Gurovits, I. Mezhirov and E. Osmova). The Richman game. Matematicheskoe prosveshenie, **3** (2001), no. 5, 78–191.

Preprints

1. (with R. Casals, M. Gorsky, I. Le, L. Shen and J. Simental) Cluster structures on braid varieties. arXiv:2207.11607
2. (with O. Kivinen and A. Oblomkov) The affine Springer fiber - sheaf correspondence. arXiv:2204.00303
3. (with A. Neguț) The Trace of the affine Hecke category. arXiv:2201.07144
4. (with R. Casals, M. Gorsky and J. Simental) Positroid Links and Braid varieties. arXiv:2105.13948
5. (with M. Hogancamp and A. Mellit) Tautological classes and symmetry in Khovanov-Rozansky homology. arXiv:2103.01212
6. (with A. Beliakova) Cyclotomic expansions for $gl(N)$ knot invariants via interpolation Macdonald polynomials. arXiv:2101.08243
7. (with R. Casals, M. Gorsky and J. Simental) Algebraic weaves and braid varieties. arXiv:2012.06931
8. (with P. Wedrich) Evaluations of annular Khovanov-Rozansky homology. arXiv:1904.04481
9. (with M. Gorsky) Distinguished bases for A_n root systems and parking functions. arXiv: 1112.0381
10. Seifert cohomology of trees. arXiv: 0901.1298
11. On the S_n -equivariant Euler characteristic of $\mathcal{M}_{2,n}$. arXiv: 0707.2662