

Publication List

Mikhail Khovanov

October 22, 2022

- 78. (joint with M. S. Im), *One-dimensional topological theories with defects: the linear case*, [arXiv:2210.00371](#).
- 77. (joint with K. Putyra and P. Vaz), *Odd two-variable Soergel bimodules and Rouquier complexes*, to appear in Contemporary Mathematics, “Geometric and Algebraic Aspects of Quantum Groups and Related Topics”, [arXiv:2205.12794](#).
- 76. (joint with M. S. Im), *Topological theories and automata*, [arXiv:2202.13398](#).
- 75. (joint with R. Lipshitz), *Categorical lifting of the Jones polynomial: a survey*, to appear in Bulletin of the AMS, [arXiv:2202.02473](#).
- 74. (joint with M. Sitaraman and D. Tubbenhauer), *Monoidal categories, representation gap and cryptography*, [arXiv:2201.01805](#).
- 73. (joint with M. S. Im), *Foams, iterated wreath products, field extensions and Sylvester sums*, [arXiv:2107.07845](#).
- 72. (joint with R. Akhmechet), *Anchored foams and annular homology*, to appear in Algebraic and Geometric Topology, [arXiv:2105.00921](#).
- 71. (joint with R. Laugwitz), *Planar diagrammatics of self-adjoint functors and recognizable tree series*, to appear in Pure and Applied Mathematics Quarterly, [arXiv:2104.01417](#).
- 70. (joint with V. Ostrik and Y. Kononov), *Two-dimensional topological theories, rational functions and their tensor envelopes*, Selecta Mathematica **28**, Article number: 71 (2022), [arXiv:2011.14758](#).
- 69. (joint with L.-H. Robert), *Conical $SL(3)$ foams*, *Journal of Combinatorial Algebra* (2022), DOI 10.4171/JCA/61, [arXiv:2011.11077](#).
- 68. *Decorated one-dimensional cobordisms and tensor envelopes of noncommutative recognizable power series*, [arXiv:2010.05730](#).
- 67. (joint with Y. Qi and L. Rozansky) *Evaluating thin flat surfaces*, Communications in Mathematical Physics **385** (2021), 1835–1870, [arXiv:2009.01384](#).
- 66. (joint with R. Sazdanovic) *Bilinear pairings on two-dimensional cobordisms and generalizations of the Deligne category*, [arXiv:2007.11640](#).
- 65. *Universal construction of topological theories in two dimensions*, [arXiv:2007.03361](#).
- 64. (joint with L.-H. Robert) *Link homology and Frobenius extensions II*, *Fundamenta Mathematicae* **256** (2022), 1–46 [arXiv:2005.08048](#).
- 63. (joint with N. Kitchloo) *A deformation of Robert-Wagner foam evaluation and link homology*, [arXiv:2004.14197](#).
- 62. (joint with R. Sazdanovic) *Diagrammatic categorification of the Chebyshev polynomials of the second kind*, Journal of Pure and Applied Algebra **225**, is.6, June 2021, 106592, [arXiv:2003.11664](#).

61. (joint with Y. Qi) *A faithful braid group action on the stable category of tricomplexes*, [SIGMA \(Symm. Integr. Geom. Methods Appl.\)](#) **16** (2020), 019, 32 pages, [arXiv:1911.02503](#).
60. (joint with L.-H. Robert) *Foam evaluation and Kronheimer-Mrowka theories*, *Advances in Mathematics* **376** (2021), 107433, [arXiv:1808.09662](#).
59. (joint with A. D. Lauda, J. Sussan, Y. Yonezawa) *Braid group actions from categorical symmetric Howe duality on deformed Webster algebra*, [Transformation Groups](#) **27** (2022), 919–982, [arXiv:1802.05358](#).
58. (joint with Y. Tian) *Towards functor exponentiation*, *Journal of Algebra* **505** (2017), [arXiv:1712.02208](#).
57. (joint with Y. Qi and J. Sussan) *p-DG cyclotomic nilHecke algebras*, to appear in *Memoirs of the AMS*, [arXiv:1711.07159](#).
56. (joint with Y. Tian) *How to categorify the ring of integers localized at two*, [Quantum Topology](#) **10**, no.4 (2019), 723–775, [arXiv:1702.07466](#).
55. (joint with J. Sussan) *The Soergel category and the redotted Webster algebra*, *Journal Pure Appl. Algebra* **222**, is. 8 (2018), 1957–2000, [arXiv:1605.02678](#).
54. *Linearization and categorification*, [Portugaliae Math.](#) **73**, is. 4 (2016), 319–335, [arXiv:1603.08223](#).
53. (joint with J. Sussan) *A categorification of the positive half of quantum $gl(m|1)$* , *Transactions AMS* **369** (2017), 1627–1664, [arXiv:1406.1676](#).
52. (joint with L. Rozansky) *Positive half of the Witt algebra acts on triply graded link homology*, *Quantum Topology*, **7**, is. 4 (2016), 737–795, [arXiv:1305.1642](#).
51. (joint with Y. Qi) *An approach to categorification of some small quantum groups*, *Quantum Topology* **6**, no. 2 (2015), 185–311, [arXiv:1208.0616](#).
50. (joint with A. P. Ellis, A. Lauda) *The odd nilHecke algebra and its diagrammatics*, *Int. Math. Research Notices*, v. 2014, no. 4 (2014), 991–1062, [arXiv:1111.1320](#).
49. (joint with A. P. Ellis) *The Hopf algebra of odd symmetric functions*, *Advances in Mathematics*, **231**, no.2 (2012), 965–999, [arXiv:1107.5610](#).
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44. *How to categorify one-half of quantum $gl(1|2)$* , *Banach Center Publications*, vol. 103 Pt.3: *Knots in Poland III*, (2014), 211–232, [arxiv:1007.3517](#).
43. (joint with A. Lauda, M. Mackaay, M. Stosic) *Extended graphical calculus for categorified quantum $sl(2)$* , *Memoirs of the AMS* **219**, no.1029 (2012), [arXiv:1006.2866](#).
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41. (joint with A. Lauda) *A diagrammatic approach to categorification of quantum groups III*, *Quantum Topology* **1**, n.1 (2010), 1–92, [arXiv:0807.3250](#).

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39. (joint with M. Asaeda) *Notes on link homology, in Low-Dimensional Topology*, ed. T.Mrowka and P.Ozsvath, IAS/Park City mathematics series, 139–196, 2009, [arXiv:0804.1279](#).
38. (joint with A. Lauda) *A diagrammatic approach to categorification of quantum groups I*, [Representation theory](#), v.13, 309-347, (2009), [arXiv:0803.4121](#).
37. (joint with V. Mazorchuk and C. Stroppel) *A brief review of abelian categorifications*, Theory and Applications of Categories, vol. 22, n. 19 (2009), [math.RT/0702746](#).
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35. (joint with Y. Chen) *An invariant of tangle cobordisms via subquotients of arc rings*, Fund. Math. **225** (2014), 23-44, [math.QA/0610054](#).
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29. *Hopfological algebra and categorification at a root of unity: the first steps*, [JKTR](#) **25**, no. 3 (2016), 1640006 (26 pages), [math.QA/0509083](#).
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