

PUBLICATIONS AND PREPRINTS

1. (With Dirk van Bree, Yunfeng Jiang and Martijn Kool) A virtual PGL_r - SL_r correspondence for projective surfaces. arXiv:2308.02288. 47 pages.
2. (With Yunfeng Jiang and Jason Lo) Stable pairs of 2-dimensional sheaves on 4-folds. arXiv:2110.01342. 60 pages and 1 figure.
3. Counting stable sheaves on singular curves and surfaces. arXiv:1909.09284. 29 pages.
4. (With Artan Sheshmani) Donaldson-Thomas invariants, linear systems and punctual Hilbert schemes. *Math. Res. Lett.* 29, 1049–1064, 2022. arXiv:1909.02679.
5. (With Richard Thomas) Degeneracy loci, virtual cycles and nested Hilbert schemes II. *Compositio* 156, 1623–1663, 2020. arXiv:1902.04128.
6. (With Richard Thomas) Degeneracy loci, virtual cycles and nested Hilbert schemes I. *Tunisian Jour. Math.* 2, 633–665, 2020. arXiv:1709.06105.
7. (With Martijn Kool) Higher rank sheaves on threefolds and functional equations. *Épiga* 3 (17), 2019. arXiv:1706.05246.
8. (With Artan Sheshmani, Shing-Tung Yau) Nested Hilbert schemes on surfaces: Virtual fundamental class. arXiv:1701.08899.
9. (With Artan Sheshmani, Shing-Tung Yau) Localized Donaldson-Thomas theory of surfaces. *American Journal of Mathematics* 142, 1, 2020. arXiv:1701.08902.
10. (With Martijn Kool) Rank 2 wall-crossing and the Serre correspondence. *Selecta Math.*, 23(2):1599–1617, 2017. arXiv:1602.03113.
11. (With Martijn Kool and Benjamin Young) Rank 2 sheaves on toric 3-folds: classical and virtual counts. *Int. Math. Res. Not. IMRN*, no. 10, 2981–3069, 2018. arXiv:1509.03536.
12. (With Artan Sheshmani) Intersection numbers on the relative Hilbert schemes of points on surfaces. *Asian J. Math.*, 21(3):531–542, 2017. arXiv:1504.01107.
13. (With Artan Sheshmani) Generalized Donaldson-Thomas Invariants of 2-Dimensional sheaves on local \mathbb{P}^2 . *Advances in Theoretical and Mathematical Physics*, 19, No. 3, 674–699, 2015. arXiv:1309.0056.
14. (With Artan Sheshmani and Richard Thomas) Counting curves on surfaces in Calabi-Yau 3-folds. *Mathematische Annalen* 360 (2014), 67–78. arXiv:1309.0051.
15. (With Artan Sheshmani) Donaldson-Thomas invariants of 2-Dimensional sheaves inside threefolds and modular forms. *Adv. Math.* 326, 79–107, 2018. arXiv:1309.0050.

16. (With Artan Sheshmani and Yukinobu Toda) Stable pairs on nodal $K3$ fibrations. *Int. Math. Res. Not. IMRN*, no. 17, 5297–5346, 2018. arXiv:1308.4722.
17. (With Martijn Kool) Stable reflexive sheaves and localization. *J. Pure Appl. Algebra*, 221(8):1934–1954, 2017. arXiv:1308.3688.
18. (With Dagan Karp and Sam Payne) Cremona symmetry in Gromov-Witten theory. *Pro Mathematica*. XXIX 57, 129–149, 2016. arXiv:1412.1516.
19. (With Yunfeng Jiang and Martijn Kool) Toric sheaves on weighted projective planes. *Advances in Theoretical and Mathematical Physics*. 21(6): 1455–1524, 2017. arXiv:1209.3922.
20. (With Hsian-Hua Tseng) On computations of genus zero two-point descendant Gromov-Witten invariants. *Michigan Mathematical Journal* 62 (2013), Issue 4, 753–768. arXiv:1207.6071.
21. (With Coates, T. and Iritani, H. and Jiang, Y. and Johnson, P. and Manolache, C.) The Quantum Lefschetz Hyperplane Principle Can Fail for Positive Orbifold Hypersurfaces. *Mathematical Research Letters* 19 (2012), no. 05, 997–1005. arXiv: 1202.2754.
22. (With Wan Keng Cheong) Orbifold Gromov–Witten theory of the symmetric product of A_r . *Geometry & Topology*, Volume 16, Issue 1 (2012), pp. 475–526. arXiv:0909.1536.
23. (With Hsian-Hua Tseng) On Donaldson-Thomas invariants of threefold stacks and gerbes. *Proceedings of the American Mathematical Society* 141 (2013), no. 1, 191–203. arXiv:1001.0435.
24. (With Yunfeng Jiang) Counting invariants for the ADE McKay quivers. arXiv:0910.5551 [The proof of Lemma 3.2 is wrong; we haven't found time to fix it yet. Nonetheless, all the results claimed in the introduction are believed to be correct. See arXiv:1107.6044 for a generalization of some of these results to the context of motivic DT invariants.].
25. (with Jim Bryan) BPS invariants for resolutions of polyhedral singularities, 2009. *Selecta Mathematica*, Volume 15, Issue 4 (2009), pp. 521–534. arXiv:0905.0537.
26. (with Jim Bryan) The Quantum McKay Correspondence for polyhedral singularities, 2009. *Inventiones Mathematicae*, Volume 178, Issue 3 (2009): pp. 655–681. arXiv:0803.3766.
27. (with Jim Bryan) Hurwitz-Hodge integrals, the E_6 and D_4 root systems, and the crepant resolution conjecture. *Advances in Mathematics*, Volume 221, Number 4 (2009), pp. 1047–1068. arXiv:0708.4244.
28. (with Jim Bryan) Root systems and the quantum cohomology of ADE resolutions. *Algebra and Number Theory*, Volume 2, Number 4 (2008), pp. 369–390. arXiv:0707.1337.

29. On the equivariant Gromov-Witten theory of \mathbb{P}^2 -bundles over curves. *Communications in Analysis and Geometry*, Volume 14, Number 4 (2006), pp. 633–671. arXiv:math/0409592.
30. (with Yinan Song) Evidence for the Gromov-Witten/Donaldson-Thomas correspondence. *Mathematical Research Letters*, Volume 13, Issue 4 (2006), pp. 623–630. arXiv:math/0510006.
31. On Szabo's proof of generalized Thom conjecture for symplectic four manifolds. Master thesis, Submitted to the library of Sharif University of Technology, July 2002.