

PUBLICATIONS AND PREPRINTS

1. (with Richard Thomas) Degeneracy loci, virtual cycles and nested Hilbert schemes. 33 pages. arXiv:1709.06105
2. (with Martijn Kool) Higher rank sheaves on threefolds and functional equations. 33 pages. arXiv:1706.05246.
3. (With Artan Sheshmani, Shing-Tung Yau) Nested Hilbert schemes on surfaces: Virtual fundamental class. 47 pages. arXiv:1701.08899.
4. (With Artan Sheshmani, Shing-Tung Yau) Localized Donaldson-Thomas theory of surfaces. 28 pages. arXiv:1701.08902.
5. (With Martijn Kool) Rank 2 wall-crossing and the Serre correspondence. *Selecta Math.*, 23(2):1599–1617, 2017. arXiv:1602.03113.
6. (With Martijn Kool and Benjamin Young) Rank 2 sheaves on toric 3-folds: classical and virtual counts. 62 pages. arXiv:1509.03536. Accepted to be published in *International Mathematics Research Notices*.
7. (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.
8. (With Artan Sheshmani) Generalized Donaldson-Thomas Invariants of 2-Dimensional sheaves on local  $\mathbb{P}^2$ . *Advances in Theoretical and Mathematical Physics*, 19 (2015), No. 3, 674–699. arXiv:1309.0056.
9. (With Artan Sheshmani and Richard Thomas) Counting curves on surfaces in Calabi-Yau 3-folds. *Mathematische Annalen* 360 (2014), 67–78. arXiv:1309.0051.
10. (With Artan Sheshmani) Donaldson-Thomas invariants of 2-Dimensional sheaves inside threefolds and modular forms. 29 pages. arXiv:1309.0050. (Submitted)
11. (With Artan Sheshmani and Yukinobu Toda) Stable pairs on nodal  $K3$  fibrations. 29 pages. arXiv:1308.4722. Accepted to be published in *International Mathematics Research Notices*.
12. (With Martijn Kool) Stable reflexive sheaves and localization. *J. Pure Appl. Algebra*, 221(8):1934–1954, 2017. arXiv:1308.3688.
13. (With Dagan Karp and Sam Payne) Cremona symmetry in Gromov-Witten theory. *Pro Mathematica*. XXIX 57 (2016) 129–149. arXiv:1412.1516.
14. (With Yunfeng Jiang and Martijn Kool) Toric sheaves on weighted projective planes. 48 pages and 10 figures. Accepted to be published *Advances in Theoretical and Mathematical Physics*. arXiv:1209.3922.
15. (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.

16. (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.
17. (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.
18. (With Hsian-Hua Tseng) On Donaldson-Thomas invariants of three-fold stacks and gerbes. *Proceedings of the American Mathematical Society* 141 (2013), no. 1, 191–203. arXiv:1001.0435.
19. (With Yunfeng Jiang) Counting invariants for the ADE McKay quivers. 30 pages and 1 figure. 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.].
20. (with Jim Bryan) BPS invariants for resolutions of polyhedral singularities, 2009. *Selecta Mathematica*, Volume 15, Issue 4 (2009), pp. 521–534. arXiv:0905.0537.
21. (with Jim Bryan) The Quantum McKay Correspondence for polyhedral singularities, 2009. *Inventiones Mathematicae*, Volume 178, Issue 3 (2009): pp. 655–681. arXiv:0803.3766.
22. (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.
23. (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.
24. 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.
25. (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.
26. 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.