

Paul D. Johnson

School of Mathematics and Statistics
University of Sheffield
Western Bank
Sheffield S10 2TN, UK

Date of Birth: December 20, 1980
Citizenship: United States
Email: paul.johnson@sheffield.ac.uk

Research Interests

Algebraic geometry and combinatorics, in particular Gromov-Witten theory and Donaldson-Thomas theory of orbifolds and the combinatorics of partitions.

Education

- 2006–2009 University of Michigan
Ph.D. in Mathematics
Advisor: Yongbin Ruan
- 2003–2006 University of Wisconsin-Madison
M.A. in Mathematics
- 1999–2003 University of Chicago
B.A. in Mathematics

Professional History

- 2014– Lecturer, University of Sheffield
- 2013–2014 Assistant Professor, Colorado State University
- 2011–2013 NSF Postdoctoral Fellow, Columbia University
- 2009 – 2011 Postdoctoral Research Fellow, Imperial College London
- Summer 2009 NSF Postdoctoral Fellow, Princeton University

Papers

1. Double Hurwitz numbers via the infinite wedge.
Trans. Amer. Math. Soc. 367 (2015), no. 9, 6415–6440. arXiv:1008.3266.
2. Equivariant GW Theory of Stacky Curves
Comm. Math. Phys. 327 (2014), no. 2, 333–386. arXiv:0903.1068
3. The quantum Lefschetz hyperplane principle can fail for positive orbifold hypersurfaces.
Joint with T. Coates, A. Gholampour, H. Iritani, Y. Jiang and C. Manolache.
Mathematical Research Letters 19 (2012), no 5. 997–1005. arXiv:1202.2754.

4. Hurwitz numbers, ribbon graphs, and tropicalization.
Tropical geometry and integrable systems, 55–72, *Contemp. Math.*, 580, Amer. Math. Soc., Providence, RI, 2012. arXiv:1303.1543.
5. Chamber Structure for double Hurwitz numbers.
Joint with R. Cavalieri and H. Markwig.
Adv. Math. 228 (2011), no. 4, 1894–1937. arXiv:1003.1805.
6. Abelian Hurwitz-Hodge integrals.
Joint with R. Pandharipande and H.-H. Tseng.
Michigan Math. J. 60 (2011), no. 1, 171–198. arXiv:0803.0499.
7. Tropical Hurwitz Numbers.
Joint with R. Cavalieri and H. Markwig.
J. Algebraic Combin. 32 (2010), no. 2, 241–265. arXiv:0804.0579.

Preprints

1. Lattice points and simultaneous core partitions.
arXiv:1502.07934.
2. A graphical interface for the Gromov-Witten theory of curves.
Joint with R. Cavalieri, H. Markwig, and D. Ranganathan.
arXiv:1604.07250.

Teaching Experience

| | |
|---------------------------|---|
| University of Sheffield | Lectured Graph Theory and Algebraic Geometry Ran discussion sections for flipped engineering math |
| Colorado State University | Combinatorics, Graduate Algebraic Topology sequence |
| Imperial College London | Taught representation theory of finite groups for advanced math majors. Ran math discussion sections for 1st year electrical engineering majors. |
| University of Michigan | Graduate Student Instructor. Taught Calculus I and II to small classes. |
| University of Wisconsin | Teaching Assistant. Led discussion sections for Calculus I, Calculus III Business Calculus, and Calculus with Precalculus. |

Honors, Awards, & Fellowships

NSF Postdoctoral Fellowship

Sumner B. Myers Prize (Best Math PhD thesis at University of Michigan)