BRETT PARKER

http://maths-people.anu.edu.au/~parkerb   brett.parker@anu.edu

- **Employment**

  - From November 2011, Research fellow, A.N.U.
  - April–September, 2011, Max Plank Institute of Mathematics at Bonn, Visitor.
  - 2010–2011, Uni Zurich, Postdoctoral research position.
  - 2009–2010, MSRI, Postdoctoral Fellow.
  - 2008–2009, University of California at Berkeley, Visiting Assistant Professor.
  - 2005–2008 Massachusetts Institute of Technology, C.L.E. Moore Instructor of Mathematics.

- **Publications**

  - Brett Parker, 'Three-dimensional tropical correspondence formula', Communications in Mathematical Physics, 2017, 26 pages.
  - Brett Parker, 'De Rham theory of exploded manifolds', to appear in Geometry and Topology, 2017, arXiv:1003.1977, 40 pages.
  - Brett Parker, *Holomorphic curves in exploded manifolds: Compactness*, Advances in Mathematics, 283, 80 pages, 2015.
  - Brett Parker, *Exploded manifolds*, Advances in Mathematics, 229, 2012, 64 pages.
  - Brett Parker, *Log geometry and exploded manifolds*, Abh. Math. Sem. Hamburg, 82, 2012, 39 pages.
  - Brett Parker, *Exploded Fibrations*, in Proceedings of Gökova geometry and topology conference 2006, 2007, 39 pages.
  - *Holomorphic curves in Lagrangian torus fibrations*, Thesis, 2005.

- **Preprints**

  - Brett Parker, 'Holomorphic curves in exploded manifolds: Regularity', 2011, arXiv:0902.0087, 48 pages.
  - Brett Parker, 'Gromov-Witten invariants of exploded manifolds', arXiv:1102.0158, 2011, 102 pages.
  - Brett Parker, 'Holomorphic curves in exploded manifolds: Kuranishi structure', arXiv:1301.4748, 2013, 86 pages.
  - Brett Parker, 'Universal tropical structures for curves in exploded manifolds', arXiv:1301.4745, 2013, 32 pages.
  - Brett Parker, 'Integral counts of Pseudo-holomorphic curves', arXiv:1309.0585, 2013, 75 pages.
  - Brett Parker, 'On the value of thinking tropically to understand Ionel's GW invariants relative normal crossing divisors', 2014, arXiv:1407.3020, 17 pages.

- Brett Parker, 'Tropical enumeration of curves in blowups of $\mathbb{C}P^2$', 2014, arXiv:1411.5722, 24 pages.
- Brett Parker, 'Gluing formula for Gromov-Witten invariants in a triple product', 2015, arXiv:1511.00779, 2015, 15 pages.
- Brett Parker, 'Holomorphic curves in exploded manifolds: virtual fundamental class', 2015, arXiv:1512.05823, 54 pages.
- Brett Parker, 'Notes on exploded manifolds and a tropical gluing formula for Gromov-Witten invariants', 2016, arXiv:1605.00577, 17 pages.
- Brett Parker, 'Tropical gluing formulae for Gromov-Witten invariants', 2017, arXiv:1703.05433, 41 pages.

- **Education**

  - Ph.D. in Mathematics, Stanford University, 2000-2005
  - Bachelor of Science, Monash University, 1997-1999. Majored in mathematics and theoretical physics, Honors year in mathematics.

- **Academic lecture series:**

  - 2016, Simons Center for Geometry and Physics, 4 lectures.
  - 2011, Clay Mathematics Institute, workshop on log geometry, 2 lectures.
  - 2011, K.I.A.S, mirror symmetry summer school, 5 lectures.
  - 2010, Strasbourg, symplectic geometry seminar, 2 lectures.
  - 2007, Stanford, 4 lectures.
  - 2006, University of Toronto, 2 lectures.
  - 2006 Gökova Geometry and Topology Conference, 2 lectures.
  - 2006 MIT, symplectic working group seminar, 3 lectures.
  - 2005 NYU, 2 lectures.

- **Teaching Experience**
  - **ANU, 2011-present**
    Taught algebra 2, advanced complex analysis, and calculus. Developed active learning in calculus. Created and taught Mathematics of Maps add-on course with Mike Eastwood, symplectic geometry course with Bryan Wang, and a lecture series on pseudo-holomorphic curves in symplectic topology for the U.Q. winter school on geometry and physics.
  - **Berkeley 2008–2009**
    Taught Real Analysis and Abstract Algebra.
  - **MIT 2005–2008**
    Taught Real Analysis (18.100), Analysis on manifolds (18.101) and a seminar course on differential topology.