TOM BRIDGELAND

Curriculum Vitae

PERSONAL DETAILS

Address	Department of Pure Mathematics
	University of Sheffield
	Hicks Building
	Hounsfield Road
	Sheffield, S3 7RH
	United Kingdom.
Telephone	+44 114 222 3747
Email	`t.bridgeland@sheffield.ac.uk`
Nationality	British.

EDUCATION and CAREER

1986 - 1991 **Shelley High School, Huddersfield.**
9 GCSEs (A), 5 'A' Levels (A).

1991 - 1995 **Cambridge University.**
Undergraduate at Christ's College.
First class honours in Mathematics (1994).
Certificate of advanced study (Part III) (1995).

1995 - 2004 **Edinburgh University.**
PhD completed under Antony Maciocia (Aug. 1998).
EPSRC Research Assistant (Nov. 1998 - Oct. 2000).
EPSRC Research Fellow (Aug. 2001 - Jul. 2003).
Royal Society Research Fellow (Aug. 2003 - Dec. 2010).

2004 - 2011 **Sheffield University.**
University Reader and Royal Society Research Fellow.
Personal chair (2006).

2011 - 2013 **Oxford University.**
Senior Research Fellow, All Souls College.

2013 - **Sheffield University.**
Professor of Pure Mathematics.

RESEARCH INTERESTS

I am interested in algebraic geometry and its connections with string theory and mirror symmetry. More specifically my research focuses on properties of derived categories of coherent sheaves on algebraic varieties. Closely related fields are complex geometry, non-commutative geometry and representation theory.

HONOURS and PRIZES

- Sir Ian MacFarlane scholarship prize (1992).
- London Mathematical Society Berwick Prize (2003).
- Edinburgh Mathematical Society Whittaker Prize (2005).
- Whittemore Lecturer, Yale University (2006).
- Invited speaker at International Congress of Mathematics (2006).
- Cambridge University Adams Prize (2007).
- Speaker at 60th birthday conference for Miles Reid (2007).
- Speaker at 80th birthday conference for Sir Michael Atiyah (2009).
- Kolchin Lecture, Columbia University (2012).
- Speaker at 60th birthday conference for Shigeru Mukai (2013).

PUBLICATIONS

(1) *Fourier-Mukai transforms for elliptic surfaces,* J. reine ang. math. 498 115–133 (1998).

(2) *Equivalences of derived categories and Fourier-Mukai transforms,* Bull. Lond. Math. Soc. 31 1 25–34 (1999).

(3) with Antony Maciocia, *Complex surfaces with equivalent derived categories,* Math. Zeit. 236 4 677–697 (2001).

(4) with Antony Maciocia, *Fourier-Mukai transforms for K3 and elliptic fibrations,* J. Alg. Geom. 11 629–657 (2002).

(5) with Alastair King and Miles Reid, *The McKay correspondence as an equivalence of derived categories*, J. Amer. Math. Soc. 14 3 535–554 (2001).

(6) *Flops and derived categories,* Invent. Math. 147 613–632 (2002).

(7) *T-structures on some local Calabi-Yau varieties*, J. of Algebra. 289 453–483 (2005).

(8) *Stability conditions on a non-compact Calabi-Yau threefold*, Comm. Math. Phys. 266, no. 3, 715–733 (2006).

(9) with Srikanth Iyengar, *A criterion for regularity of local rings*, C. R. Math. Acad. Sci. Paris 342 , no. 10, 723–726 (2006).

(10) *Derived categories of coherent sheaves*, International Congress of Mathematicians. Vol. II, 563–582, European Math. Soc., Zürich. (2006).

(11) *Stability conditions on triangulated categories*, Ann. of Math. 166 no. 2, 317–345 (2007).

(12) *Stability conditions on K3 surfaces*, Duke Math. J. 141 , no. 2, 241–291 (2008).

(13) *Spaces of stability conditions*, Algebraic geometry–Seattle 2005. Part 1, 1–21, Proc. Sympos. Pure Math., 80, Amer. Math. Soc., Providence, RI. (2009).

(14) *Stability conditions and Kleinian singularities*, Int. Math. Res. Not. no. 21, 4142–4157 (2009).

(15) with P. Aspinwall et al, *Dirichlet Branes and Mirror Symmetry*, Clay Mathematics Monographs, x+681 pp. Hardback 684 pp. (2009).

(16) with David Stern, *Helices on del Pezzo surfaces and tilting Calabi-Yau algebras*, Adv. Math. 224 1672–1716 (2010).

(17) *Hall algebras and curve-counting invariants*, J. Amer. Math. Soc. 24 969–998 (2011).

(18) *An introduction to motivic Hall algebras*, Adv. Math. 229, no. 1, 102–138 (2012).

(19) with Valerio Toledano Laredo, *Stability conditions and Stokes factors*, Invent. Math. 187, no. 1, 61–98 (2012).

(20) with Valerio Toledano Laredo, *Stokes factors and multilogarithms*, J. reine ang. math. 682 89-128 (2012).

(21) *Quantum groups via Hall algebras of complexes,* Annals of Maths. 177, no. 2, 739–759 (2013).

PREPRINTS

(1) with Antony Macioica, *Fourier-Mukai transforms for quotient varieties*, arxiv math/9811101, 15pp. (1998).

(2) with Ivan Smith, *Quadratic differentials as stability conditions*, 122 pp. arXiv:1302.7030 (2013).

(3) with Arend Bayer, *Derived automorphism groups of K3 surfaces of Picard number 1*, 40 pp. (2013).