

## CURRICULUM VITAE

**NAME: MARTY ROSS**

**ADDRESS:**

PO Box 83, Fairfield, Victoria, 3078

**PERSONAL DATA:**

Born 27 September 1959  
Australian and U.S. citizen

**EDUCATION:**

La Trobe University, Bachelor of Laws (Graduate Entry), in progress  
Stanford University, PhD. (Mathematics) 1989  
    Thesis Title: Stability Properties of Complete Two-Dimensional Minimal Surfaces  
                    in Euclidean Space  
    Thesis Advisor: Brian White  
Stanford University, MSc., 1987  
Australian National University, BSc. (1st Class Honours) 1982

**AWARDS:**

Article of the Year, Mathematical Gazette, 2004  
Brown College Award for Excellence in Teaching of Science, Rice University, 1992  
Brown College Award for Excellence in Teaching of Science, Rice University, 1991  
Karel DeLeuw Mathematics Teaching Award, Stanford University, 1989  
University Medal, Australian National University, 1982  
Hanna Neumann Undergraduate Prize for Mathematics, Australian National University, 1982  
Hanna Neumann Undergraduate Prize for Mathematics, Australian National University, 1980  
National Undergraduate Scholarship, Australian National University, 1978-1982  
Victorian Undergraduate Scholarship, 1978-1982

**PROFESSIONAL APPOINTMENTS:**

Lecturer (Casual), University of Melbourne, June 2009 – Present  
Tutor (Casual), University of Melbourne, June 2006 – Present  
Lecturer (Casual), University of Melbourne, June 2006 – June 2007  
Lecturer, AMSI Summer School (Honours Measure Theory), January 2008 – February 2008  
Lecturer, AMSI Summer School (Honours Measure Theory), January 2007 – February 2007  
Lecturer, AMSI Summer School (Honours Measure Theory), January 2006 – February 2006  
Tutor (Casual), La Trobe University, June 2005 – November 2005  
Lecturer, AMSI Summer School (Honours Measure Theory), January 2005 – February 2005  
Tutor (Casual), University of Melbourne, March 2004 – June 2006  
Lecturer (Level B), Monash University, February 2002 - February 2004  
Lecturer, AMSI Summer School (Honours Measure Theory), January 2003 – February 2003  
Research Fellow, Monash University, June 1999 - February 2002  
Research Associate, Monash University, December 1996 – June 1999  
Lecturer (Level B), University of Melbourne, January 1996 – December 1996  
Lecturer (Casual), University of Melbourne, August 1995 – December 1995  
Research Fellow, University of Melbourne, 1993 – 1995  
Lecturer (Level B), La Trobe University, Bendigo 1992 – 93  
G.C. Evans Instructor, Rice University, 1989 – 92  
Teaching and Research Assistant, Stanford University, 1983 – 89  
Research Assistant, Centre for Mathematical Analysis, ANU, 1985

## **RECENT INVITED PRESENTATIONS:**

MAV Public Lecture Series, Museum of Victoria, 2001 – Present

MAV Mathemagical Mystery Tours (with Burkard Polster), 2006 – 2009

Sunshine Coast Mathematics Tournament, Brisbane, Guest Speaker, July 2009

Partnership Victoria, Guest Speaker, Brisbane, July 2009

QAMT Annual Conference, Brisbane, Keynote Speaker, June 2009

*Theorems by Theatre* (with Burkard Polster) MAV Annual Conference, Victoria, Keynote Address, December 2008

*Numeracy Forum*, MAV Annual Conference, Victoria, Invited Speaker, December 2008

*The Talk With No Name*, QAMT Regional Conference, Keynote Address, July 2007

*Evening With No Name*, Invited Speaker, Noel Baker Centre, Adelaide, May 2007

*CAS: Is it the Messiah, or Just a Very Naughty Machine?*, MAV Annual Conference, Victoria, Keynote Address, December 2006

*Singing Fermat's Sums*, Guest Speaker, MAV Conference, December 2005

*Pulp Fractions* (with Burkard Polster), Guest Speaker, MAV Conference, December, 2005

MAT Annual Conference, Hobart, Guest Speaker, April 2005

*What, if anything, is 'Essential Mathematics'?*, MAV Annual Conference, Victoria, Invited Keynote Address, December 2004

## **MEDIA APPEARANCES**

Today Tonight (*The Biggest Gamble*) 23 May, 2007

Scope, Ten Network (*The Golden Ratio*) 27 April, 2007

Catalyst, ABC TV (*Phi Challenge*) 20 July, 2006

## **NEWSPAPER WRITING:**

*Maths Masters* (with Burkard Polster), The Age, 2007 – Present (61 columns)

*How maths became the sum of many failings*, The Age, 23 Feb 2009

*Maths minus reason = failure*, The Age, May 14, 2007

## REFEREED PUBLICATIONS:

*How much is a \$5 betting coupon worth?*, Math Horizons, September 2008

*Mathematical table-turning revisited* (with Bill Baritoma, Rainer Löwen and Burkard Polster), Mathematical Intelligencer, **29** (2007), 49-58

*Turning the Tables* (with Burkard Polster), Vinculum, Term 3 2005

*Mathsnacks* (with Burkard Polster), Vinculum, 2004 – Present (four times per year)

*The Lipschitz continuity of Neumann eigenvalues*, Hokkaido Math. Jour., **33** (2004) 369-381

*Irrational Thoughts*, Mathematical Gazette, March 2004, 64-70

*A Rellich-Kondrachov Theorem for spiky domains*, Indiana Univ. Math. Jour., **47** (1998), 1497-1509.

*The classification of complete orientable 2-dimensional area-minimizing mod 2 surfaces in  $R^n$* , Journal of Geometric Analysis, **8** (1998), 313-317.

*The second variation of nonorientable minimal submanifolds*, Trans. Amer. Math. Soc **349** (1997), 3093-3104

*Fundamental constructions in geometric measure theory*, Proceedings of the Centre for Mathematics and its Applications, A.N.U., **34** (1996)

(with Steven J. Cox) *Extremal eigenvalue problems for starlike planar domains*, Journal of Differential Equations **120** (1995), 174-197

(with Chad Schoen) *Stable quotients of periodic minimal surfaces*, Communications in Analysis and Geometry, **2** (1994), 451-459.

(with Steven J. Cox) *Extremal eigenvalue problems for starlike planar drums*, Proceedings of the NATO Advanced Research Workshop on Topology Design of Structures, Kluwer, 1993, 345-352.

*Complete nonorientable minimal surfaces in  $R^3$* , Comment. Math. Helvetici, **67** (1992), 64-76.

*Schwarz' P and D surfaces are stable*, Diff. Geometry and its App. **2** (1992), 179-195.

*The end behavior of complete 2-dimensional area-minimizing mod 2 surfaces in  $R^n$* , Duke Math. J. **63** (1991), 623-632

*Complete minimal spheres and projective planes in  $R^n$  with simple ends*, Math. Zeit. **201** (1989), 375-380

*Federer's structure theorem*, Research report, CMA, Australian National University, 1984.

## BOOK REVIEWS

Victorian Year 9 Mathematics Texts (with David Treeby), Vinculum, Term 4 2008

*Visual Geometry and Topology* by Anatolij Fomenko, The Australian Mathematical Society Gazette, **21** (1994), 88-90.

*Poetry of the Universe* by Robert Osserman, The Australian Mathematical Society Gazette, **24**, No.1 (1997).

## **PAPERS AND MONOGRAPHS IN PROGRESS:**

Mathematics goes to the Movies (monograph, with Burkard Polster, to appear, Springer-Verlag)

*Mathematical Rugby* (with Burkard Polster, submitted to Mathematical Gazette)

*A Novel Approach to Limits* (draft)

*Do Glaciers Exist?* (with Joseph Grotowski, draft)

Review of *Mathematical Methods 3 and 4*, Cambridge, 2006 (with David Treeby, draft)

*Ice flow properties from the Amery Ice Shelf, computed by a control method*, (with Neal Young and Roland Warner, draft)

The Nature and Beauty of Mathematics (monograph, draft)

*Gauss's Egregious Theorem* (in preparation)

Lectures on Measure Theory (monograph, in preparation)