

# Claire Postlethwaite

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## Employment

- Jan 2006 - present, Postdoctoral Fellow, Engineering Science and Applied Mathematics, Northwestern University.

## Education

- Oct 2002 - Nov 2005, PhD, Applied Mathematics, University of Cambridge, supervised by Dr. Jonathan Dawes. Thesis title: Robust Heteroclinic Cycles and Networks.
- Oct 2001 - Jun 2002, Part III Maths (Certificate of Advance Study), Distinction, University of Cambridge.
- Oct 1998 - Jun 2001, BA Hons Mathematics, 1st Class, University of Cambridge.

## Publications

- C.M. Postlethwaite and M. Silber, Spatial and temporal feedback of traveling wave solutions of the two-dimensional complex Ginzburg–Landau equation. 2006, *Submitted to Physica D*. <http://arxiv.org/abs/nlin.PS/0701007>
- C.M. Postlethwaite and J.H.P. Dawes, A codimension two resonant bifurcation from a heteroclinic cycle with complex eigenvalues. *Dynamical Systems: An International Journal*, **21(3)**, 2006, 313-336.
- C.M. Postlethwaite and J.H.P. Dawes, Regular and irregular cycling near a heteroclinic network. *Nonlinearity*, **18**, 2005, 1477-1509.
- J.H.P. Dawes, C.M. Postlethwaite and M.R.E. Proctor, Instabilities induced by a weak breaking of a strong spatial resonance. *Physica D*, **191**, 2004, 1-30.

## Seminars and Presentations

- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. Applied Mathematics Colloquium, Northwestern University, October 2006.
- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. Presentation at the Isaac Newton Institute Programme ‘Pattern Formation in Large Domains’, October 2005.
- ‘A Codimension Two Resonant Bifurcation from a Heteroclinic Cycle with Complex Eigenvalues’. Contributed Presentation, SIAM conference on Applications of Dynamical Systems, Utah, USA, May 2005.
- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. Poster presentation at Coupled 60 workshop, University of Houston, Texas, USA, February 2005.
- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. Applied Mathematics Seminar Series, Exeter, November 2004.
- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. DAMTP seminar series, Cambridge, May 2004.
- ‘Cycling Cycles: Dynamics near a Heteroclinic Network’. LMS PANDA meeting, Cambridge, December 2003.
- ‘Heteroclinic Networks in Rotating Convection’. AFD/NLD Group Seminar Series, Cambridge, October 2003.
- ‘Heteroclinic Networks in Rotating Convection’. Poster presentation at SIAM conference on Applications of Dynamical Systems, Utah, USA, May 2003.
- ‘Heteroclinic Networks in Rotating Convection’. Poster presentation at Workshop on Dynamics and Bifurcations of Patterns, University of Colorado, USA, May 2003.

## Academic Awards

- March 2004, Rayleigh-Knight Essay Prize, University of Cambridge.
- May 2003, J. Yorke Poster Prize, SIAM Conference on Applications of Dynamical Systems, Utah.
- June 2001, Senior Scholarship, Trinity College, Cambridge.
- June 2001, Mathison Prize (highest ranking student in applied mathematics), Trinity College, Cambridge.
- June 1999, Junior Scholarship, Trinity College, Cambridge.

## Teaching Experience

- 2006, 2007, Instructor for Math 234, Multivariable Calculus, for undergraduate engineers, Northwestern University.
- 2006 - present, Assisting with supervision of PhD student Tiffany Psemeneki, Northwestern University. Research project involves optimal control of a simplified model of fish locomotion.
- December 2005, Admissions officer for undergraduate interviews for Trinity College, Cambridge.
- August 2005, Supervisor for example classes for the Isaac Newton Institute training course 'Pattern Formation in Large Domains'.
- Oct-Dec 2004, Instructor for example classes for the Part III (graduate) course Bifurcations and Instabilities in Dissipative Systems, DAMTP, Cambridge University.
- Oct 2002 - Dec 2005, Supervisor for undergraduate mathematics students at Cambridge University. Courses taught include Differential Equations, Dynamics, Complex Methods and Dynamical Systems.

## Professional Services and Memberships

- Referee for *Dynamical Systems: an International Journal*.
- Book reviewer for SIAM DSWeb (<http://www.dynamicalsystems.org/>) and UK Nonlinear News (<http://www.maths.leeds.ac.uk/Applied/news.dir/>).
- Member of SIAM.
- Member of the LMS.

## Skills and Qualifications

- Excellent computer skills, both on Windows and Unix platforms.
- Working knowledge of Matlab, Maple, LaTeX, Fortran, Pascal, IDL and Visual Basic.
- Teambuilding and self awareness, developed through the UK Grad training programme (Otterburn, October 2004).