

Anthony C L Ashton

PERSONAL STATUS	British, Married.	
EMPLOYMENT	Emmanuel College , University of Cambridge. Junior Research Fellow in Mathematics DAMTP , University of Cambridge. PhD Plus Research Fellow	Oct 2010 to present Dec 2009 to Aug 2010
RESEARCH INTERESTS	Analysis in PDEs, non-local approaches to boundary value problems, infinite dimensional Hamiltonian systems, Lie group methods and symmetry analysis in PDEs.	
EDUCATION	University of Cambridge , Peterhouse, England PhD in Mathematics, supervised by Prof. A.S. Fokas - Thesis Title: <i>Nonlocal Approaches to Boundary Value Problems</i> . Certificate of Advanced Study in Mathematics (<i>Distinction</i>) BA Pure & Applied Mathematics (<i>1st Class</i>)	Oct 2006 to Dec 2009 Oct 2005 to June 2006 Oct 2002 to June 2005
PRIZES AND AWARDS	University of Cambridge Dept. of Applied Mathematics and Theoretical Physics. <ul style="list-style-type: none">• PhD Plus Fellowship Competition, winner. - Awarded to student showing outstanding promise during PhD.• Smith-Knight Essay Prize. Peterhouse <ul style="list-style-type: none">• Elected Senior Scholar in Mathematics.• Francis Gisborne Scholar in Mathematics.	
PUBLICATIONS	Applied Analysis Group, DAMTP <ul style="list-style-type: none">• A.C.L. Ashton, <i>Clifford Analysis and Boundary Value Problems</i>. In preparation.• A.C.L. Ashton, <i>Fourier Transforms of Surface Measures with Hölder Regularity</i>. In preparation.• A.C.L. Ashton, <i>Inversion of the Dirichlet-Neumann Map on Domains with \mathbf{Z}_2 Symmetry</i>. Submitted.• A.C.L. Ashton, A.S. Fokas, <i>A Non-local Formulation of Rotational Water Waves</i>. Submitted.• A.C.L. Ashton, <i>On the Non-existence of Three Dimensional Water Waves with Finite Energy</i>. Nonlinear Analysis B (in press).• A.C.L. Ashton, <i>Regularity Theorems for Elliptic and Hypoelliptic Operators via the Global Relation</i>. J. Part. Diff. Eq. (2011), 24, 83–96.• A.C.L. Ashton, <i>Stability of Parallel Fluid Loaded Plates: A Non-local approach</i>. Studies in Applied Mathematics (2010), 125, 301–329.• A.C.L. Ashton, A.S. Fokas, <i>A Novel Method of Solution for the Fluid Loaded Plate</i>. Proc. Roy. Soc. A (2009), 465, 3667–3685.• A.C.L. Ashton, <i>Conservation Laws and Non-Lie Symmetries</i>. J. Nonlinear Math. Phys. (2008), 15-3, 316–332.• A.C.L. Ashton, <i>The Fundamental k-Form and Global Relations</i>. Symmetry, Integrability & Geom., Meth. and App. (2008), 4, 033.	
TALKS AND PRESENTATIONS	Applied Analysis Group, DAMTP <ul style="list-style-type: none">- <i>The Hamiltonian Structure of Water Wave Equations</i>. Mathematical Physics Seminars, DAMTP 10/09.- <i>A Novel Approach to Boundary Value Problems</i>. University of Nottingham, 08/09.- <i>A Pseudodifferential Approach to Fluid Loaded Plates</i>. Oxford vs. Cambridge Applied Mathematics conference (winners), DAMTP 05/09.- <i>Clifford Algebras and Boundary Value Problems</i>. Young Researchers in Mathematics, DAMTP 03/09.- <i>The Fluid Loaded Plate and Well-posedness</i>. Young Researchers in Mathematics, DAMTP 03/09.- <i>A Novel Method of Solution for the Fluid Loaded Plate</i>. Imperial College, 01/09.- <i>Conservation Laws in Mathematical Physics</i>. Directions in Research, DAMTP 07/08.	

TEACHING
EXPERIENCE

Undergraduate Supervising

Oct 2005 to Present

- Taught 17 different courses from Parts IA, IB and II of the Mathematical tripos. Ranging from Complex Analysis to General Relativity. Teaching material is available on request.

Undergraduate Admissions Interviewer

Dec 2006 to Present

- Conduct interviews with the Director of Studies (currently Dr. A. Zsak, previously Dr. M. Walters) for undergraduate admissions in Mathematics.

Pre University Tutoring

Mar 2007 to Present

- On behalf of Clare college, tutor a small groups of potential applicants from inner city schools. Sessions cover interview style questions and STEP exams.