

CURRICULUM VITAE

Name	Ian Ross	Date of Birth	10th February 1972
Address	Basement Flat 14A All Saints Road Bristol BS8 2JJ	Place of Birth	Bristol, UK.
		Marital Status	Single
		Nationality	British
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EDUCATION

Oct. 2005 - Present *School of Geographical Sciences, University of Bristol, UK*

Currently working towards a PhD., using ideas from dynamical systems theory to try to understand the output of climate models. This work is funded by a NERC e-Science studentship, for which I wrote a proposal while working as a research assistant in the department. As well as my PhD. work, I have been involved in various proposal writing, lecturing and research group support activities.

Oct. 1998 - Nov. 2001 *Department of Physics, Oxford University, UK*

Spent three years studying towards a DPhil. in the Sub-Department of Atmospheric, Oceanic and Planetary Physics. First year spent working on data analysis for the PMIRR-2 instrument on the Mars Climate Orbiter spacecraft, until this mission was lost at Mars in September 1999, necessitating a change of DPhil. project. Following two years spent unsuccessfully attempting to develop prototype optical delay line hardware and associated control software for a proposed space interferometry mission to search for extra-solar planets. Left department before submitting thesis due to lack of financial resources. Received Werrett Prize for first year report. Taught undergraduate physics and mathematics at St. Anne's College.

Oct. 1997 - June 1998 *Clare College, Cambridge University, UK*

Certificate of Advanced Study in Mathematics (Part III Maths Tripos) – basically a taught master's in advanced mathematics. Involved studying five or six lecture courses for examination from a choice of around a hundred in all branches of mathematics, both pure and applied. I followed courses in a range of subjects in applied mathematics and theoretical physics.

Oct. 1989 - June 1992 *Christ Church, Oxford University, UK*

Gained BA (Oxon.) First Class Honours degree in Physics. Studied a wide variety of physical phenomena, with a strong emphasis on theoretical work – my final year courses included Mathematical Physics, Advanced Quantum Mechanics, General Relativity and Differential Geometry. Received College Scholarship for performance in first year examinations.

Sept. 1987 - June 1989 *St. Brendan's Sixth Form College, Bristol, UK*

Five A-levels: Mathematics (A), Further Mathematics (A), Physics (A), Computer Science (A), Chemistry (B); three S-levels: Mathematics (1), Further Mathematics (1), Physics (1).

Sept. 1983 - June 1987 *Bedminster Down Comprehensive School, Bristol, UK*

9 O-levels.

WORK EXPERIENCE

June 2004 - Sep. 2005 *School of Geographical Sciences, University of Bristol – Scientific Programmer*

One year contract position working on climate modelling, with a view to starting a PhD. in the department at the beginning of the next academic year. My work involved using the FOAM GCM coupled to the LPJ dynamic vegetation model to evaluate vegetation and ocean feedbacks on the mid-Holocene climate. I was also been involved in liaising with the fire paleodata community in the US and performed some teaching duties in the department.

Jan. 2004 - Mar. 2004 *Elixent Ltd., Bristol – Software Engineer*

Short-term contract position in a semiconductor IP company working on place-and-route tools for a reconfigurable array processor architecture. My work here revolved around modelling aspects of the architectural timing model to derive simplified empirical timing rules to improve the place-and-route performance.

Mar. 2003 - Dec. 2003 *Ergnosis Ltd., Bristol – Software Engineer*

Permanent position in a small software start-up producing next-generation software tools for Java development. My responsibilities here predominantly involved the development of low-level infrastructure

components such as language parsing infrastructure and a flexible low-level versioning and undo/redo system.

Nov. 2002 - Feb. 2003 *Coleg Ceredigion, Aberystwyth* – Part-Time Maths Lecturer
Short-term contract teaching maths part-time at 'A'-Level and university entrance standard. During this period, also did a range of freelance web design and CAD work in West Wales.

Feb. 2002 - Oct. 2002 *Systems Engineering & Assessment Ltd., Somerset* – Senior Systems Engineer
Permanent position in medium-sized company performing development and study work in the marine and aerospace sectors. Performed a variety of tasks here, including sonar system performance analysis as part of a support contract to the MoD for the Sonar 2076 system, development of software for use in distributed naval simulations, assessment of a large software package for acoustic synthesis for sonar system acceptance testing, and a software development project for translation of CAD geometry for use in visualisation of distributed simulations.

Nov. 2001 - Feb. 2002 *Every Software Ltd., Oxford* – software developer
Permanent position as senior software developer working with small early stage company, developing distributed image management software for the construction industry.

Jan. 1997 - May 1997 *Union Bank of Switzerland, New York* – IT consultant
Contracting position working on fixed income analytics library. Designed and implemented a cross-platform database interface for accessing reference and historical data. Also contributed to the design of the main analytics library and acted as a technical consultant for most of the programming and design questions arising in the work of other members of the team.

July 1995 - Dec. 1996 *Credit Suisse Financial Products, Tokyo* – analyst/developer
Permanent position (with grade of Assistant Vice President) involving support and development work for a variety of front office systems, including Lotus spreadsheet addins, trade entry systems and deal revaluation servers. Wrote a general trade display addin for Lotus 1-2-3 for UNIX, replacing several existing addins with one capable of managing trade types of arbitrary complexity, flexibly and quickly; also worked on the migration of existing Lotus 1-2-3 for UNIX spreadsheets to Excel on Windows NT. On top of project work, also provided general developer support and tools troubleshooting for five other Tokyo developers.

Aug. 1994 - June 1995 *Teknekron Software Systems Inc., London* – C++/SQL development
Worked on a number of different projects, including an order routing system for Liberty (a subsidiary of Cedel), and maintenance and enhancement of an existing database replication package. The major project I worked on was a distributed transaction processing infrastructure for Nomura (there was also interest from other clients). I worked on the main message switching mechanisms for this, and wrote a large (c. 35,000 lines) Motif administration and configuration tool for the system. I was also in charge of the day-to-day management of the programming team on this project, which involved scheduling work for a group of five or six people and managing deliveries to clients, as well as doing a large proportion of the development work myself.

April 1993 - July 1994 *Investment Intelligence Systems Corp., London* – C/C++ development
The main bulk of my work here was on a market data delivery system, initially in London, then in Paris at Banque Nationale de Paris, supporting their main Paris dealing room and branch offices world-wide. I had experience of both server and client development, writing a fault-tolerant feed handler for a French stock market feed, a real-time DDE server for Windows, and working on character-based and Motif front-ends for market data display; I also worked on other communications projects, including an automated news quality monitoring system for Reuters.

Nov. 1992 - March 1993 *Compulexis Ltd., Oxford, UK* – C/SQL development
Programming work for dictionary editing systems.

PUBLICATIONS

R. M. Gladstone, I. Ross, P. J. Valdes, A. Abe-Ouchi, P. Braconnot, S. Brewer, M. Kageyama, A. Kitoh, A. Legrande, O. Marti, R. Ohgaito, B. Otto-Bliesner, W. R. Peltier, G. Vettoretti (2005). Mid-Holocene NAO: A PMIP2 model intercomparison. *Geophys. Res. Lett.* **32**(16), art. no. L16707.

V. Masson-Delmotte, M. Kageyama, P. Braconnot, S. Charbit, G. Krinner, C. Ritz, E. Guilyardi, J. Jouzel, A. Abe-Ouchi, M. Crucifix, R. Gladstone, C. Hewitt, A. Kitoh, A. LeGrande, O. Marti, U. Merkel, T. Motoi, R. Ohgaito, B. Otto-Bliesner, W. Peltier, I. Ross, P. Valdes, G. Vettoretti, S. Weber, F. Wolk, Y. Yu (2006). Past and future polar amplification of climate change: Climate model intercomparisons and ice-core constraints. *Clim. Dyn.* **26**(5),

513-529.

D. J. Lunt, I. Ross, P. J. Hopley, P. J. Valdes (2006). Modelling Late-Oligocene C4 grasses and climate. *Submitted to Palaeogeography, Palaeoclimatology, Palaeoecology.*

POSTERS

I. Ross, P. J. Valdes, S. Wiggins (2006). Towards a framework for stochastic bifurcation analysis of atmospheric models. *Presented at EGU General Assembly, Vienna.*

I. Ross, P. J. Valdes, S. Wiggins (2006). ENSO at the Mid-Holocene and LGM: Results from the Paleoclimate Modelling Intercomparison Project PMIP2. *Presented at the NERC/DAMTP GEFD Summer School, Cambridge.*

LECTURES AND PUBLIC TALKS

- 6 Jul 2006 *Aviation and Climate Change*
Stop Bristol Airport Expansion Campaign
- 19 Oct 2006 *What Do We Know About Climate Change And How Do We Know It?*
Stop Climate Change Campaign
- 1 Nov 2006 *Climate change and implications for public health*
Avon Public Health Network Seminar series
- 14 Mar 2007 *Land use and climate change*
School of Geographical Sciences, University of Bristol
Hydrosphere and Environmental Change, Climate Impacts lecture series

INTERESTS

Languages French: speak, read and write to a good conversational standard; Japanese: speak and read to an basic level; Welsh: speak and read to a basic level.

Sports Swimming: 2-3 times a week; circuit training: lots; cycling: as often as possible; kayaking, particularly white water and surf kayaking; caving.

Walking and Camping I am a keen walker and have walked in a number of places in the UK, Iceland and France. I particularly enjoy long-distance lightweight backpacking and wild camping.

Travel I have lived in France, Japan and the US, and have travelled in Egypt, Tunisia, Indonesia, Canada, the Philippines and a number of European countries.

REFERENCES

Provided on request.