

CURRICULUM VITAE (July 2010)

NAME *PETER LEONARD READ*

DATE OF BIRTH: 18 October 1953

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Married with two children

DEGREES HELD

B.Sc. (Hons Class I) Physics	University of Birmingham	1975
Ph. D.	Radioastronomy University of Cambridge	1980
M.A.	University of Oxford	1990

EMPLOYMENT

1979	Higher Scientific Officer, High Atmosphere Branch (Met O 19), Meteorological Office, Bracknell, Berkshire - <i>studies of the 'umkehr' inversion technique for measurement of stratospheric ozone and NO₂</i>
1979 - 1980	Meteorological Office College, Shinfield Park, Reading, Berkshire - <i>Scientific Officers Course (introduction to theoretical and operational meteorology)</i>
1980 - 1988	Research Scientist (promoted to Senior Scientific Officer 1983, Principal Scientific Officer 1985), Geophysical Fluid Dynamics Laboratory, Meteorological Office, Bracknell, Berkshire - <i>laboratory, numerical and theoretical studies of the dynamics of rotating fluids, and applications to planetary atmospheres and oceans.</i>
1988 - 1991 (1990-	Research Scientist and Head of Meteorological Office Unit (1991), Robert Hooke Institute, University of Oxford - <i>establishing a Geophysical Fluid Dynamics Laboratory in Oxford.</i>

1991 - present	University Lecturer, Dept. of Physics (Atmospheric, Oceanic & Planetary Physics), University of Oxford, and Fellow and Tutor in Physics, Trinity College, Oxford. <i>Head of Geophysical and Planetary Fluid Dynamics group.</i>
2001	Senior Tutor, Trinity College, Oxford
2002 – 2003	Dean, Trinity College, Oxford.
2005 – 2006	Vice-President, Trinity College, Oxford.
2008 -	Head of sub-Department of Atmospheric, Oceanic & Planetary Physics, University of Oxford (from 1 August 2008)

HONOURS & PRIZES

1. Fellow by Special Election, St Cross College, Oxford (1989-1991)
2. Titular Reader in Physics, University of Oxford (1999-present)
3. Golden Badge Award, European Geophysical Society (2001) – for distinguished service as Chairman of IWG I (Nonlinear Processes in Geophysics).
4. Titular Professor of Physics, University of Oxford (2002 – present)
5. Visiting Professor, Université Aix et Marseille II, France (2003)
6. Visiting Professor, École Normale Supérieure, France (2007)
7. Adrian Gill Prize, Royal Meteorological Society (2008)

OTHER POSTS & APPOINTMENTS

(i) Co-convenor of symposium on 'Long-lived Eddies in Atmospheres and Oceans' at the European Geophysical Society General Assembly, Louvain-la-Neuve, Belgium (April 1984)

(ii) Co-convenor for planetary atmospheres, Royal Society Planetary Science Working Group (1987-1989)

(iii) Committee member of the Dynamical Problems Specialist Group of the Royal Meteorological Society (1987 - present; Secretary 1988-94)

(iv) Member of NASA Instrument Definition Science Team for the imaging facility instrument on the proposed NASA/ESA Cassini spacecraft mission to Saturn and Titan (1988-1989)

- (v) Secretary to the University Grants Committee Review of Meteorology (1988-1989)
- (vi) Local convener of a symposium 'The Meteorology and Climate of Mars' at the IAMAP General Assembly, Reading (August 1989).
- (vii) Secretary, Hooke Institute Steering Group (overseeing body for liaison between the Robert Hooke Institute, Oxford, and the participating external organisations - Oxford University, Meteorological Office and NERC Institute for Oceanographic Sciences) (1990-1991).
- (viii) Invited Lecturer at Summer School on 'Rotating Fluids in Geophysical and Industrial Applications' International Centre for Mechanical Sciences (CISM), Udine, Italy (July 1991).
- (ix) Co-convener of symposium 'Coherent Structures and Turbulence in Geophysical Fluids and Plasmas' at the European Geophysical Society General Assembly, Edinburgh (April 1992)
- (x) Co-convener of symposia 'Atmospheres of the terrestrial and outer planets' at the European Geophysical Society General Assemblies in Wiesbaden (May 1993), Grenoble (May 1994) and Hamburg (April 1995)
- (xi) Elected Chairman of the Interdisciplinary Working Group I (Nonlinear Processes in Geophysics) of the European Geophysical Society for 1996-2000.
- (xii) Member of the Commission on Planetary Atmospheres and their Evolution (ICPAE) of the International Association for Meteorology and Atmospheric Science (IAMAS) (1995 – present)
- (xiii) Participating Scientist on the Pressure-Modulator Infrared Radiometer (PMIRR) Experiment on the NASA Mars Observer Mission (1992-93).
- (xiv) Co-Investigator on the Composite Infrared Spectrometer instrument (CIRS) on the NASA/ESA Cassini mission to Saturn (1993 - present).
- (xv) Associate Editor *Surveys in Geophysics*, appointed for 1996-2006.
- (xvi) Co-Investigator on the Pressure-Modulator Infrared Radiometer (PMIRR) for the NASA Mars Climate Orbiter mission (1996 - 1999).
- (xvii) Associate Editor *Physics & Chemistry of the Earth*, appointed for 1996-2001.
- (xviii) Member of Expert Panel for HYDRALAB consortium (EU Concerted Action Programme in Geophysical Fluid Dynamics and Hydraulics) (1998-2000)
- (xix) Elected Ordinary Member of Council of the Royal Meteorological Society, October 1999-2002.
- (xx) Organizer of main meeting of the Royal Meteorological Society on 'Meteorology of the Sun and Planets' (December 1999)

(xxi) Convener of symposium 'Achievements and directions in nonlinear geophysics:' at the European Geophysical Society General Assembly in Nice (April 2000),

(xxii) Associate Editor *Quart. J. R. Met. Soc.*, 2000-2005.

(xxiii) NASA Discovery Mission Science Panel (November 2000)

(xxiv) Member of Scientific Organizing Committee of 1st International Workshop on The Mars Atmosphere: Modelling and Observations, Granada, Spain, 13-15 January 2003

(xxv) NASA Planetary Atmospheres Peer Review Panel (August 2004)

(xxvi) Co-Editor *Quart. J. R. Met. Soc.*, 2005 – 2008.

(xxvii) Member of Scientific Organizing Committee of 2nd International Workshop on The Mars Atmosphere: Modelling and Observations, Granada, Spain, 27 February – 3 March 2006

(xxviii) Chair of Planetary sub-Panel of the Astronomy Grants Panel, STFC, 2007-2010

(xxix) Member of Scientific Organizing Committee of International Conference on Fluxes and Structures in Fluids – Physics of Geospheres, M. V. Lomonosov Moscow State University, Russia, 23-28 June 2009

(xxx) Organizer of ROTATING FLUIDS IN GEOPHYSICS: A meeting to celebrate the work of Prof. Raymond Hide FRS CBE, 10 July 2009

(xxxi) Member of Scientific Organizing Committee of International Venus Conference, Aussois 2010, Aussois, France, 20-26 June 2010

MEMBERSHIP OF PROFESSIONAL SOCIETIES

- Fellow of Royal Astronomical Society (since 1980)
- Fellow of Royal Meteorological Society (since 1980)
- Member of European Geophysical Society / European Geosciences Union (since 1982)
- Member of Royal College of Organists (since 1978)
- Member of Division of Planetary Sciences of American Astronomical Association (since 2008)
- Member of American Geophysical Union (since 2009)

Invited lectures and presentations (since 2001)

1. *Laboratory experiments on sloping convection and the General Circulation: "Philosophers' Stone" or a "storm in a teacup"?* - Royal Meteorological Society meeting on *Dynamics of the atmospheric circulation: classic papers and their message for today*, London 21 November 2001.

2. *Ten years of the 'EuroMars' Climate Model* - General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan 30 June-11 July 2003
3. *Large-scale experimental study of the formation of zonal jets in convectively-driven geostrophic turbulence on a topographic beta-plane* - Symposium on Rotating and Stratified Flows, General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan 30 June-11 July 2003
4. *Atmospheric dynamics on Jupiter since Galileo and Cassini* - Symposium on Recent Progress in Planetary Exploration at XXV International Astronomical Union, Sydney, Australia, 13-26 July 2003
5. *Baroclinic/inertia-gravity wave interactions and their stochastic parameterization* - EPSRC Network Workshop on Mathematical Models of Geophysical Flows, Pitlochry, Scotland, 20-24 April 2004
6. Appearance on *Material World* (BBC Radio 4)
http://www.bbc.co.uk/radio4/science/thematerialworld_20040513.shtml
7. *Multiple jet formation in a convectively driven flow on a beta-plane* - International Conference on Theoretical and Applied Mechanics, Warsaw, Poland, 15-20 August 2004
8. *Mars climate and meteorology* - International Conference on Environmental Systems, Rome, Italy, 11 July 2005
9. *'Storms in a teacup': new directions for research on baroclinic chaos* - International Couette-Taylor Workshop, Sapporo, Japan, 5-7 September 2005
10. *Dynamics of convectively driven banded jets in the laboratory* - AGU Chapman Conference on Jets and Annular Structures in Geophysical Fluids, Savannah GA, USA, 9-12 January 2006
11. *Spontaneous Inertia-gravity wave generation by fully-developed baroclinic instability in the laboratory* - Spontaneous Imbalance Workshop, Seattle WA, USA, 7-10 August 2006
12. *DNS of transitions towards Structural Vacillation and centrifugal convection in an air-filled, rotating, baroclinic annulus* - International Couette-Taylor Workshop, Le Havre, France, 9-12 July 2007
13. *Simulating the circulation of Venus' atmosphere using OPUS-V: waves, instabilities and clouds* - Venus Workshop, UCLA, 29 August - 1 September 2007
14. *Synchronizing baroclinic chaos - in numerical models and experiments* - Nonlinear Dynamics & Chaos: Advances & Perspectives [in honour of Celso Grebogi] University of Aberdeen 17 - 21 September 2007
15. *Large-scale planetary and geophysical turbulence - general introduction, and Large-scale geostrophic turbulence experiments on the Coriolis platform* - International Workshop on Zonal Jets in Rotating Turbulent Flows of Cryogenic Helium,

College of Marine Sciences, University of South Florida, February 25-26, 2008

16. *General Circulation Models of the atmospheres of the outer planets* – Royal Meteorological Society: Weather and climate on the planets: A joint meeting with the Royal Astronomical Society, London, 19 March 2008
17. *Fluid dynamics (& climate) for “Physics majors”?* - Workshop on Teaching Weather and Climate Using Laboratory Experiments, University of Chicago, USA, 18-20 June 2008
18. *Assessing atmospheric predictability of the Martian atmosphere using numerical weather prediction and data assimilation* – 3rd International Workshop on The Mars Atmosphere: modeling and observations, Williamsburg, Va, USA, 10-13 November 2008.
19. *“Free Modes”, Arnol’d II and other stories.....* - Symposium in honour of Dr Andy White, Imperial College, London, 7 January 2009
20. *Dynamics and Circulation Regimes of the Terrestrial Planets: The Big Picture....?* – 43rd ESLAB Symposium: Comparative Planetology – Venus – Earth – Mars, ESTEC, Noordwijk, The Netherlands, 11-15 May 2009
21. *Eddy-Driven Jets and Vortices in Convectively Forced Geostrophic Turbulence on a Topographic Beta-Plane* – International Conference on Fluxes and Structures in Fluids – Physics of Geospheres, M. V. Lomonosov Moscow State University, Russia, 23-28 June 2009
22. *Predicting chaotic climates: from Earth to super-Earths?* – International Conference on Mathematics and Astronomy: a joint long journey, Madrid, Spain, 23-27 November 2009
23. *Climate and atmospheric circulation of Mars* - CPS 6th International School of Planetary Sciences: Planetary Atmospheres, Kobe, Japan, 4-9 January 2010.
24. *Eddy-driven jets and vortices in convectively forced geostrophic turbulence on a topographic beta-plane* – HYDRALAB Users’ Symposium, Hannover, Germany, 1-4 February 2010.
25. *Laboratory studies of eddy-driven jets and vortices in convectively forced geostrophic turbulence on a topographic beta-plane* – AGU Ocean Sciences Conference, Portland, Oregon, USA, 22-26 February 2010
26. *Synchronization phenomena in the Earth’s climate on quasi-biennial and intraseasonal timescales from measurements of zonal wind and atmospheric angular momentum* – 458th WE-Heraus Seminar: SYNCLINE 2010 Synchronization in Complex Networks, Physikzentrum Bad Honnef, Germany, 26-29 May 2010
27. *Barotropic instability of planetary polar vortices: laboratory analogues of Venus’s polar ‘dipole’?* – International Venus Conference, Aussois, France, 20-26 June 2010
28. *Building a “big picture” of planetary atmospheres dynamics* – COSPAR General

Assembly, Bremen, Germany, 18-25 July 2010