Colin Goldblatt

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Employment

2008 – present	NASA Postdoctoral Program Fellowship, NASA Ames Research Center, California, U.S.A. Advisor: Dr Kevin Zahnle
2008 – 2008	Research Assistant, School of Environmental Sciences, University of East Anglia, U.K.

University Education

2005 – 2008	PhD, School of Environmental Sciences, University of East Anglia, U.K. *Bistability of atmospheric oxygen, the Great Oxidation and climate* Supervisors: Prof. Tim Lenton and Prof. Andy Watson FRS.
2003 – 2005	PhD student, School of Geographical Sciences, University of Bristol, U.K. Transferred to UEA when Prof. Lenton moved to UEA.
1999 – 2003	BSc(Hons) Meteorology and Oceanography, Class I, Schools of Environmental Sciences and Mathematics, University of East Anglia, U.K. Including academic year 2001 – 2002 as: Exchange Student, University of Colorado, USA.

Awards

2008	Editors' Citation for Excellence in Refereeing for Global Biogeochemical Cycles.
2003	Prize for best final year project, School of Environmental Sciences, University of East Anglia.
2001	Ede and Ravencroft Prize for significant academic and extra curricular achievement, University of East Anglia.

Grants

2008	NASA Postdoctoral Program Fellowship ($120,000)
2007	Goldschmidt Student Travel Grant (€500)
2007	Bioastronomy Meeting Student Travel Grant ($1760)

Journal articles

Submitted/in review:

C. Goldblatt, A. J. Matthews, M. W. Claire, T. M. Lenton, A. J. Watson and K. J. Zahnle, Nitrogen as a resolution of the Faint Young Sun Paradox.

C. Goldblatt, N. Sleep, K. J. Zahnle and E. G. Nisbet, The Eons of Chaos and Hades.

C. Goldblatt, A. J. Watson and T. M. Lenton, Bistability of atmospheric oxygen and the Great Oxidation: implications for life detection.

Published:

C. Goldblatt, T. M. Lenton and A. J. Watson, An evaluation of the longwave radiative transfer code used in the Met Office Unified Model, *Quart. J. Roy. Met. Soc.,* 135(640), 619-633, doi:10.1002/qj.403.

M. T. Johnson, N. E. Vaughan, P. Goodwin, **C. Goldblatt**, S. Roudesl and T. M. Lenton, Why NH_3 Is Not a Candidate Reagent for Ambient CO_2 Fixation: A Response to "Alternative Solution to Global Warming Arising from CO_2 Emissions—Partial Neutralization of Tropospheric H_2CO_3 with NH_3", *Environ. Prog.*, 27(3), 412-417, 2008, doi:10.1002/ep.10298.

C. Goldblatt, T. M. Lenton and A. J. Watson, Bistability of atmospheric oxygen and the Great Oxidation, *Nature,* 443, 683-686, 2006, doi:10.1038/nature05169.

K. W. Nicholls, et al. [22 authors including **C. Goldblatt**], Measurements beneath an Antarctic ice shelf using an autonomous underwater vehicle, *Geophys. Res. Lett.*, 33, L08612, 2006, doi:10.1029/2006GL025998.

Conference presentations

Forthcomming:

Oral: C. Goldblatt. A. J. Matthews, M. Claire, T. M. Lenton , A. J. Watson and K. J. Zahnle, Nitrogen as a resolution of the Faint Young Sun Paradox, *Astrobiology Graduate Conference (AbGradCon)*, 17–20 July 2009, Seattle, U.S.A.

Poster: C. Goldblatt. A. J. Matthews, M. Claire, T. M. Lenton , A. J. Watson and K. J. Zahnle, Nitrogen as a resolution of the Faint Young Sun Paradox, *The Royal Meteorological Society Conference*, 29 June–2 July 2009, Reading, United Kingdom.

Poster: C. Goldblatt, T. M. Lenton and A. J. Watson, An evaluation of the longwave radiative transfer code used in the Met Office Unified Model, *The Royal Meteorological Society Conference*, 29 June–2 July 2009, Reading, United Kingdom.

Oral: C. Goldblatt. A. J. Matthews, M. Claire, T. M. Lenton , A. J. Watson and K. J. Zahnle, There was probably more nitrogen in the Archean atmosphere - this would have helped resolve the Faint Young Sun paradox, *Goldschmidt,* 21–26 June 2009, Davos, Switzerland.

Poster: C. Goldblatt. A. J. Matthews, T. M. Lenton , A. J. Watson and K. J. Zahnle, The nitrogen content of the early atmosphere: climatic consequences and surface–geosphere exchange, *Developments In Noble Gas Understanding and Expertise (DINGUE) workshop*, 19–20 June 2009, Nancy, France.

Previous:

Invited, oral: C. Goldblatt, A. J. Matthews, T. M. Lenton, A. J. Watson and K. J. Zahnle, The Global Nitrogen Budget and the Faint Young Sun Paradox, *AGU Fall Meeting,* 15–19 December 2008, San Francisco, U.S.A.

Poster: C. Goldblatt, T. M. Lenton and A. J. Watson, Bistability of atmospheric oxygen and the Great Oxidation: implications for life detection, *Royal Society discussion meeting: Photosynthetic and atmpspheric evolution*, 12–13 November 2007, London, U.K.

Oral: C. Goldblatt, T. M. Lenton and A. J. Watson, Bistability of atmospheric oxygen and the Great Oxidation, *Goldschmidt,* 20–24 August 2007, Cologne, Germany.

Oral: C. Goldblatt, T. M. Lenton and A. J. Watson, Bistability of atmospheric oxygen and the Great Oxidation: implications for life detection, *Bioastronomy 2007,* 15–19 July, Puerto Rico.

Poster: C. Goldblatt, T. M. Lenton and A. J. Watson, Bistability of atmospheric oxygen and the Great Oxidation: implications for life detection, *Astrobiology Graduate Conference (AbGradCon)*, 13–14 July 2007, Puerto Rico.

Poster: C. Goldblatt, T. M. Lenton and A. J. Watson, The Great Oxidation at ∼2.4 Ga as a bistability in atmospheric oxygen due to UV shielding by ozone, *European Geosciences Union,* 2–7 April 2006, Vienna, Austria.

Oral: C. Goldblatt, A. J. Watson and T. M. Lenton, Multiple extreme glaciations in the Palaeoproterozoic: coupled climate biogeochemical dynamics, *Earth System Processes II.* 8–11 August 2005, Calgary, Canada.

Departmental Seminars

Forthcomming:

Met, Ocean and Climate seminar series, School of Environmental Sciences, University of East Anglia, U.K., *A double bill of radiative transfer with a bit of geochemistry thrown in for fun: An evaluation of the longwave radiative transfer code used in the Met Office Unified Model followed by solving the Faint Young Sun Paradox with nitrogen* (10 July 2009).

Previous:

Space Science Seminar Series, NASA Ames Research Center, California, U.S.A., *The N2 inventory of the Early Earth atmosphere: Climatic consequences and surface-mantle geochemical cycling* (21 January 2009).

Earth and Planetary Sciences, University of California Santa Cruz, U.S.A., *The global nitrogen cycle and the faint young sun paradox* (17 October 2008).

Space Science Division, NASA Ames Research Center, California, U.S.A., *Bistability of atmospheric oxygen: understanding the Great Oxidation and finding other planets* (8 February 2007).

Geochemical Luncheon Club, School of Environmental Sciences, University of East Anglia, U.K., *The Great Oxidation at ~2.4 Ga as a bistability in atmospheric oxygen* (23 January 2006).

Professional Service

Reviewer for: *Global Biogeochemical Cycles*
Geophysical Research Letters

Education and Outreach

San Jose Tech Musuem Space Week. Talks to museum visitors, both school children and adults. *Life and planetary atmospheres: Earth and beyond* (22 July 2009).

NASA Digital Learning Network. Broadcast seminar to high school and middle school students. *Life and planetary atmospheres: Earth and beyond* (1 April 2009).

Research training and courses

Sept 2004	Earth System Sciences Summer School, University of Reading, UK.
Jan – Feb 2004	European Research Course in Atmospheres (ERCA), Grenoble, France.
June – Aug 2002	Summer Student Fellow, Woods Hole Oceanographic Institution, MA, USA.

Fieldwork experience

Jan – Feb 2004	Five week research cruise on *RRS James Clark Ross* in the Southern Ocean. Responsibilities included operating CTD, processing hydrographic data and general watchkeeping duties.
Aug 2003	Field Assistant on geomorphological fieldwork in north-east Iceland.