

ALLEN POPE

@PopePolar about.me/allenpope

CURRENT POSITIONS

Postdoctoral Researcher, National Snow and Ice Data Center (2013-present)

- Studying cryospheric applications of Landsat 8
- Projects including estimating supraglacial lake depth in Greenland, monitoring glacier change in north-central Asia, and studying very low surface temperatures in Antarctica

NASA Visiting Young Scientist, Dartmouth College (2014)

- Building collaborations with existing cryospheric research groups at Dartmouth
- Developing and teaching an undergraduate and graduate course on “Polar Remote Sensing” with both theoretical and applied components

EDUCATION

Scott Polar Research Institute, University of Cambridge (Trinity College)

- Ph.D. in Polar Studies (2009-2013)
- M.Phil. in Polar Studies (2008-2009)
- Research using remote sensing to study the cryosphere with a focus on using satellite multispectral imagery and airborne laser ranging and to investigate glacier change
- Planned, funded, and executed two data collection campaigns in Svalbard and Iceland
- Supervised by Gareth Rees
- Funded by National Science Foundation Graduate Research Fellowship; previously supported by a Trinity College Eben Fiske Studentship
- Attended short courses in Glaciology at the University Centre in Svalbard lead by Doug Benn (2010) and McCarthy, Alaska led by Regine Hock (2012)

Harvard University

- B.A. in Chemistry (High Honors) & Earth and Planetary Sciences (Highest Honors), Magna cum laude, Foreign Language Citation in French (2004-2008)
- Honors thesis on Antarctic glacial history; GPA: 3.9/4, Phi Beta Kappa

PEER-REVIEWED PUBLICATIONS

Pope, A. and W.G. Rees, 2014. *Suitability of Multispectral Imagers for Remote Classification of Glacier Facies*. *Remote Sensing of Environment*, 141: 1-13.

Pope, A. and W.G. Rees, 2014. *Using in situ Spectra to Explore Landsat Classification of Glacier Surfaces*. *International Journal of Applied Earth Observation and Geoinformation*, 27A: 42-52.

Pope, A., Willis, I.C., Rees, W.G., Arnold, N.S., and F. Pálsson, 2013. *Combining airborne LiDAR and Landsat ETM+ data with photogrammetry to produce a digital elevation model for Langökull, Iceland*. *International Journal of Remote Sensing*, 34(4) 1005-1025.

Paul, F., ... **A. Pope**, and 17 others, 2013. *On the Accuracy of Glacier Outlines Derived from Remote Sensing Data*. *Annals of Glaciology* 53(63).

Aplin, P., D.S. Boyd, F.M. Danson, D.N.M. Donoghue, G. Ferrier, N. Galiatsatos, A. Marsh, **A.**

Pope, F.A. Ramirez, and N.J. Tate, 2012. *The Earth Observation Technology Cluster*, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XXXIX-B6: 31-36.

Mukhopadhyay, S., R.P. Ackert Jr., **A. Pope**, D. Pollard, and R.M. DeConto, 2012. *Miocene to Recent Ice Elevation Variations from the Interior of the West Antarctic Ice Sheet: Constraints from Geologic Observations, Cosmogenic Nuclides and Ice Sheet Modeling*. Earth and Planetary Science Letters 337–338: 243–251.

Baeseman, J., and **A. Pope**, 2011. *APECS: Nurturing a new generation of polar researchers*. Oceanography 24(3):219.

OTHER PUBLICATIONS

Pope, A., I.C. Willis, L. Grey, N.S. Arnold, W.G. Rees, and F. Pálsson, in prep. *Surface Topography, Change, and Surging of Langjökull, Iceland, from 1997 to 2007*. Journal of Glaciology.

Pope, A., A. Flemming, A. Fox, and W.G. Rees, in prep. *Open Access in Polar and Cryospheric Remote Sensing*. Remote Sensing.

Pope, A., 2012. *Spotting Ice From Space*. Planet Earth (NERC Magazine), Spring 2012.

Pope, A., 2012. *Review: Glossary of Glacier Mass Balance and Related Terms*. Polar Record doi:10.1017/S0032247411000805.

Pope, A., 2012. *Review: Repeat Photography: methods and applications in the natural sciences*. Journal of Glaciology, 58(208), 423.

Pope, A., 2009. *Recent Changes to Langjökull Icecap, Iceland: An investigation integrating airborne LiDAR and satellite imagery*, M.Phil. Thesis, University of Cambridge.

Pope, A., 2008. *Exposure dating with ²¹Ne and its application to Antarctic ice sheet history*, B.A. (Honors) Thesis, Harvard University.

SELECTED PRESENTATIONS AND POSTERS

Pope, A., T. Scambos, R. Bindschadler, and T. Haran, 2013. *Applications of Landsat 8 to Ice Sheets*. West Antarctic Ice Sheet Meeting, Sterling, VA.

Campbell, G., **A. Pope**, M.A. Lazzara, and T.A. Scambos, 2013. *The Coldest Place On Earth: -90°C and Below in East Antarctica from Landsat-8 and other Thermal Sensors*. American Geophysical Union Fall Meeting, San Francisco.

Pope, A. and T.A. Scambos, 2013. *Glacier Change and an Updated Glacier Inventory of Mongolia using Landsat 8*. American Geophysical Union Fall Meeting, San Francisco.

Willis, I., E. Pope, **A. Pope**, N. Arnold, and W.G. Rees, 2013. *Biases in MODIS and ETM+ -derived surface albedo and implications for energy balance and melt*. American Geophysical Union Fall Meeting, San Francisco.

S. Weeks and **A. Pope**, 2011. *The Cool Club: Creating, engaging, experimental, and creative encounters between young minds and polar researchers*. American Geophysical Union Fall Meeting, San Francisco.

Oral presentation: **Pope, A.**, W.G. Rees, I. Willis, N. Arnold, and F. Pálsson, 2010. *Recent Changes to Langjökull, Iceland: Integrating airborne LiDAR and satellite imagery*. International Polar Year Oslo Science Conference, Oslo.

Hoffman, P.F., Domack, E.W., Fox, T.J., **Pope, A.**, McKinnon, K., 2008. *Large base-level and glacioeustatic changes during the pan-glacial episode ending in 635 Ma*. American Geophysical Union Fall Meeting, San Francisco.

COMMUNITY OUTREACH & ACTIVITIES

- Council, Council Leadership Team, Thriving Earth Exchange Board, Cryosphere Focus Group Executive Committee, and Publications Strategy Team; *American Geophysical Union* (2013-2014)
- Steering Committee, *International Polar Initiative* (2011-Present)
- Director, *Foundation for the Good Governance of International Spaces* (2013-Present)
- Fellow, *Software Sustainability Institute* (2013-2014)
- President, Vice-President / Executive Committee, Council Member, and Field Schools Coordinator; *Association of Polar Early Career Scientists (APECS)*, (2010-Present)
- Committee Member, Organizer: Cryospheric Sciences Career Skills Workshop, Circumpolar Remote Sensing Workshop, Software and Polar Research Workshop, Website manager Education and outreach team; *UK Polar Network* (2009-2013)
- Session Co-Convener, American Geophysical Union Fall Meeting 2011 and International Polar Year Oslo Science Conference 2010; Organizing Committee, Circumpolar Remote Sensing Symposium 2010.
- Expeditions Committee Polar Science Advisor, *British Exploring* (2010-2013)
- Participant selection and evaluation committee, *PolarTREC 2011* (Teachers and Researchers Exploring and Collaborating; ARCUS, NSF)
- Extensive outreach activities coordinated with: The Polar Museum, Scott Polar Research Institute, UK Polar Network, British Science Festival, Education Through Expeditions, and others.
- **Field Assistant:** Langtang Valley, Nepal (May-June 2013), glaciology; Tarfala Research Station (March – April 2012, April-May 2013), glacier mass balance; US Antarctic Program (Nov 2008 – Jan 2009), cosmogenic nuclide sample collection; Namibia (May-June 2008), carbonate sedimentary geology studying Snowball Earth.
- **Selected Honors:** IPY Oslo Early Career Stipend Recipient (2010), John Glen Prize for Best Student Poster, IGS British Branch Meeting (2009), Kawamura Visiting Fellowship Program (2008), AmeriCorps Student Leader in Service (2007), Herchel Smith Summer Undergraduate Research Fellowship (2006), Eagle Scout Rank, Boy Scouts of America (2004).

TEACHING EXPERIENCE

Geography Department, Cambridge University (2011-2013)

- Led small group undergraduate supervisions for 1st year course on Remote Sensing of Climate Variables; 2-3 students per session.
- Contributing lecturer and supervisor for M.Phil. in Polar Studies; 7 students. Led the first remote sensing practical lesson ever used in the course.
- Demonstrated practical exercises on multispectral remote sensing using ERDAS Imagine. Class size ~40 students with 3-4 instructors.

Juneau Icefield Research Program (2012)

- Glaciological training and research in expeditionary field setting
- Lectured/led exercises on mass balance, energy balance, cosmogenic nuclide measurements, remote sensing, communication skills, and the BBC's "Frozen Planet."
- Advised multiple student research projects related to feature tracking, vegetation mapping, shallow radar interpretation, and mass balance flux-gate calculation.

Reach Cambridge Summer School – Geography (2010)

- Lecturer to final year high-school students on climate change and glaciology. Supervised excursion to the London Natural History Museum.