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RESEARCH INTERESTS Tropical Cyclones, Numerical Modelling, Air-Sea Interaction, El Niño Southern Oscillation, Climate Change, Ocean Surface Waves

**PUBLICATIONS** 

Bell, R. J., Strachan, J., Hodges, K. I., Vidale, P. L. and Roberts, M. (2014) The role of the remote Ocean on tropical cyclone activity associated with different types of El Niño, (in prep.)

Roberts, M., Vidale, P. L., Mizielinski, M., Demory, M-E., Schiemann, R., Strachan, J., Hodges, K., Camp, J. and Bell, R. (2014) Tropical cyclones in the UPSCALE ensembles of high-resolution global climate models, *Journal of Climate (submitted)* 

Roberts, M., Vidale, P. L., Bell, R. and Hodges, K. (2013) Sensitivity of tropical cyclone simulation to SST forcing, *U.S. Clivar Variations*, **11(3)**, 12-17

Bell, R. J., Strachan, J., Hodges, K. I., Vidale, P. L. and Roberts, M. (2013) Simulation of the global ENSO-Tropical cyclone teleconnection by a high resolution coupled general circulation model, *Journal of Climate (in review)* 

Bell, R. J., Strachan, J., Hodges, K. I., Vidale, P. L. and Roberts, M. (2013) The Response of Tropical Cyclones to Idealized Climate Change Experiments in a Global High Resolution Coupled General Circulation Model, *Journal of Climate*, **26(20)**, 7966-7980

Bell, R. J., Strachan, J., Hodges, K. I. and Vidale, P. L. (2012) Tropical cyclones and climate change in a high resolution general circulation model, HiGEM, Proceedings of the 30<sup>th</sup> American Meteorological Society on Hurricanes and Tropical Meteorology

Bell, R. J., Leonard-Williams, A. and Saulter, A. (2010) The North Atlantic Wave Climate and the NAO. *Unpublished Met Office report for BAE Systems* 

Conference Presentations **Invited speaker**, 2014 Ocean Sciences Meeting, *Honolulu, Hawaii, USA*, February 2014.

4<sup>th</sup> International Summit on Hurricanes and Climate Change, Kos, Greece, June 2013: Awarded student travel award; Awarded University graduate school travel bursary.

Royal Meteorology Society Student Conference, Leeds, UK, June 2012:

## Organiser.

American Meteorological Society 30<sup>th</sup> Conference on Hurricanes and Tropical Meteorology, *Ponte Vedra Beach*, *Florida*, *USA*, April 2012.

European Research Course on Atmospheres, *Grenoble, France*, January - February 2012: **Poster prize**.

Met Office Tropical Cyclone Working Group meetings, *Exeter*, *UK*, 2011 - present.

#### **EDUCATION**

#### The University of Reading, Reading, Berkshire, UK

PhD., Atmosphere, Oceans and Climate, October 2010 - expected Feburary 2014

Thesis: Dynamically Simulated Tropical Storms: Their Natural Variability and Response to Climate Change

Research summary: Investigating the response of global tropical cyclone activity to the phase of ENSO and climate change; specifically evaluating the driving mechanisms of changing tropical cyclone activity using a high-resolution coupled climate model, which is validated against reanalysis data and observations of tropical cyclones.

Supervisors: Prof. Pier Luigi Vidale, Dr. Kevin Hodges & Dr. Jane Strachan

# The University of Southampton, Southampton, Hampshire, UK

MOcean., Master of Oceanography, October 2006 - July 2010, First-Class Honours

Dissertation: Wind and Wave Variability in Reanalyses and Satellite Measurements in the North Atlantic

Research summary: Analysis and interpretation of Ocean wave products in reanalyses and calibrated altimeter measurements. Investigating the relationship of Ocean wave variability to modes of atmospheric variability using empirical orthogonal functions.

Supervisors: Prof. Meric Skroksz, Dr. Christine Gommenginger & Dr. David Cromwell

### West Somerset Community College, Minehead, Somerset, UK

Alevels: Maths (A), Biology (B), Geography (B).

Achievements: Achievement award, Department award for Geography.

# WORK EXPERIENCE

Met Office, Exeter, Devon, UK

Ocean Waves team, Summer 2010

Adding a perturbed physics scheme to an Ocean wave model ensemble. The project involved running the spectral wave model WAVE-WATCHIII with forcing from The Met Office Global and Regional Ensemble Prediction System (MOGREPS).

Australian Institute of Marine Science, Townsville, Queensland, Australia

Research scientist, Summer 2008

Processing, visualisation and interpretation of a global ocean circulation model and Argo surface velocity drifter data for the Coral Triangle region. Output from my work on circulation and connectivity of the region was presented at an international workshop in November 2008.

#### Princeton Hydro, LLC, Princeton, New Jersey, United States

Project scientist, Summer 2007

I worked side by side with a senior project scientist sampling pollutants and biology on private and public lakes.

## Professional Activities

Spatio Temporal modelling Workshop, Glasgow, February 2014

Associate fellow, American Geophysical Union, 2013 - present.

Attended the National Centre for Atmospheric Science Climate Modelling Summer School, Oxford, September 2013.

Organiser of 'PhD Visiting Scientist: Isaac Held', at Department of Meteorology, *Reading*, March 2013.

Participant in 2-day Unified Model hands-on training course, *Reading*, November 2012.

Associate Fellow, American Meteorological Society, 2012 - present.

Participant in European Research Course on Atmospheres, 9<sup>th</sup> January - 10<sup>th</sup> February 2012, *Grenoble and Haute-Provence*, *France*. Received a NERC Scholarship, Walker Institute Award and Royal Meteorology Society Legacy Fund Award to finance attendance.

Associate Fellow, Royal Meteorological Society, 2010 - present.

## OUTREACH ACTIVITIES

Media interviews regarding typhoon Haiyan with BBC and Sky news, November 2013.

Influencing Policy on Climate Change workshop, Windsor, October 2013. Environmental YES: increasing entrepreneurial awareness, Nottingham, August 2013.

Media coaching day, Reading, April 2013.

Attended Introduction to the News Media, Oxford, April 2013.

Helped organise the University of Reading meteorology careers day, March 2013.

Presented a poster at a stakeholder engagement event on floods and droughts, *London*, January 2013.

Attended the Lloyds of London science of risk conference, *London*, November 2012.

Shortlisted for a Parliamentary Office of Science and Technology (POST) internship for my writing on coastal protection, September 2012.

Contributions to the 'weather and climate discussion' blog at the Department of Meteorology, *Reading*, 2011 - present.

Experience with the use of social media for scientific outreach.

Wrote current blogs from the international conferences I have attended,

2012 - present.

Teacher assistant at a popular mathematics lecture in  $\it Birmingham,$  October 2011.

Demonstrated on several MSc. and BSc. Meteorology courses, 2011 -present.

References available on request Last updated: January 28, 2014