

SAMANTHA FERRETT

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EMPLOYMENT

Postdoctoral Research Associate, *University of Reading* **October 2019 – Present**

The project aims to examine the representation on high impact weather in Southeast Asia in convection-permitting ensemble forecasts. The project is part of the Met Office Weather and Climate Science for Service Partnership (WCSSP) SE Asia, as part of the Newton Fund.

Postdoctoral Research Associate, *University of Reading* **March 2018 – October 2019**

The project aimed to investigate the relationship between Tropical Waves and high impact weather across Southeast Asia in reanalyses and Met Office forecasts. The project is part of the Met Office Weather and Climate Science for Service Partnership (WCSSP) SE Asia, as part of the Newton Fund.

Associate Research Fellow, *University of Exeter* **July 2015 – March 2018**

Research aimed to increase understanding of persistent coupled climate model biases atmospheric processes that modulate in El Niño-Southern Oscillation (ENSO) events and drive teleconnections. This project was part of Work Package 2: “Global Dynamics of Climate Variability and Change” of the Met Office Climate Science for Service Partnership (CSSP) China Project, as part of the Newton Fund.

Associate Research Fellow, *University of Exeter* **October 2014 – April 2015**

Six month placement on the Met Office Climate Science for Services Partnership (CSSP) China Project, as part of the Newton Fund.

EDUCATION

University of Exeter **September 2011 – May 2015**

Ph.D. Mathematics

Thesis: *El Niño-Southern Oscillation stability under global warming.*

University of Exeter **September 2006 – June 2010**

Master of Mathematics with Honours in Mathematics; Class I

PUBLICATIONS

- Ferrett, S.**, Frame, T. H. A, Methven, J., Holloway, C. E., Webster, S., Stein, T. H. M., and Cafaro, C. (In Press) Evaluating convection-permitting ensemble forecasts of precipitation over Southeast Asia. *Weather and Forecasting*, doi: <https://doi.org/10.1175/WAF-D-20-0216.1>
- Cafaro C., Woodhams, B., Stein, T. H. M., Birch, C., Webster, S., Bain, C., Hartley, A., Clarke, S., **Ferrett, S.**, and Hill, P. (2021) Do convection-permitting ensembles lead to more skilful short-range probabilistic rainfall forecasts over tropical East Africa? *Weather and Forecasting* doi: <https://doi.org/10.1175/WAF-D-20-0172.1>
- Yang, G.-Y., **Ferrett, S.**, Woolnough, S., Methven, J. and Holloway, C. E. (2020) Real-time identification of equatorial waves and evaluation of waves in global forecasts. *Weather and Forecasting*. ISSN 0882-8156 doi: <https://doi.org/10.1175/WAF-D-20-0144.1>
- Ayesiga, G., Holloway, C. E., Williams, C. J., Yang, G.-Y. and **Ferrett, S.** (2020) The observed synoptic scale precipitation relationship between Western Equatorial Africa and Eastern Equatorial Africa. *International Journal of Climatology*. ISSN 0899-8418 doi: <https://doi.org/10.1002/joc.6711>
- Ferrett, S.**, Collins, M., Ren, H.-L., Wu, B. and Zhou, T. (2020) The role of tropical mean-state biases in modeled winter Northern Hemisphere El Niño teleconnections. *Journal of Climate*, 33 (11). ISSN 1520-0442 doi: <https://doi.org/10.1175/JCLI-D-19-0668.1>
- Ferrett, S.**, Yang, G.-Y., Woolnough, S. J., Methven, J., Hodges, K. and Holloway, C. E. (2020) Linking extreme precipitation in Southeast Asia to equatorial waves. *Quarterly Journal of the Royal Meteorological Society*, 146 (727). pp. 665-684. ISSN 1477-870X doi: <https://doi.org/10.1002/qj.3699>
- Jimenez, J. C., Marengo, J. A., Alves, L. M., Sulca, J. C., Takahashi, K., **Ferrett, S.** and Collins, M. (2019) The role of ENSO flavors and TNA on recent droughts over Amazon forests and the Northeast Brazil region. *International Journal of Climatology*. ISSN 0899-8418 doi: <https://doi.org/10.1002/joc.6453>
- Ferrett, S.**, & Collins, M. (2019). ENSO feedbacks and their relationships with the mean state in a flux adjusted ensemble. *Climate Dynamics*, DOI 10.1007/s00382-016-3270-9
- Ferrett, S.**, Collins, M., & Ren, H. L. (2018). Diagnosing relationships between mean state biases and El Niño shortwave feedback in CMIP5 models. *Journal of Climate*. doi: 10.1175/JCLI-D-17-0331.1
- Ferrett, S.**, Collins, M., & Ren, H. L. (2017). Understanding Bias in the Evaporative Damping of El Niño Southern Oscillation Events in CMIP5 Models. *Journal of Climate*. **30**, 6351-6370.
- Guilyardi, E., Bellenger, H., Collins, M., **Ferrett, S.**, Cai, W., & Wittenberg, A. (2012). A first look at ENSO in CMIP5. *Clivar Exchanges*, 17(1), 29-32.

COMMUNICATIONS

(International only)

- S. Ferrett**, S. Woolnough, G.-Y. Yang, J. Methven, K. Hodges and C. Holloway. *Tropical wave compositing and analysis* [Oral] The 2nd WCSSP Southeast Asia Regional Science Workshop, Manila, Philippines 2019
- S. Ferrett**, S. Woolnough, G.-Y. Yang, J. Methven, K. Hodges and C. Holloway. *Linking extreme precipitation in Southeast Asia and equatorial waves* [Poster] The 2nd WCSSP Southeast Asia Regional Science Workshop, Manila, Philippines 2019

- S. Ferrett**, S. Woolnough, G.-Y. Yang, J. Methven, K. Hodges and C. Holloway. *Equatorial Waves and High Impact Weather in South East Asia* [Oral], AOGS, Singapore 2019
- S. Ferrett**, M. Collins and H.-L. Ren. *The Role of the Hydrological Cycle in ENSO Atmospheric Feedbacks* [Oral] AGU Fall Meeting, San Francisco, USA 2016
- S. Ferrett**, M. Collins and H.-L. Ren. *Atmospheric feedbacks in the ENSO cycle and the Role of the Hydrological Cycle* [Oral] The Second Science meeting of CSSP China, Nanjing, China 2015
- S. Ferrett** and M. Collins. *ENSO stability under climate change* [Poster] CLIVAR Workshop on ENSO extremes and diversity, Sydney, Australia 2015
- S. Ferrett** and M. Collins. *ENSO stability under climate change* [Oral] EGU General Assembly, Vienna, Austria 2014

OTHER SKILLS AND EXPERIENCE

Extensive knowledge of Python, R, Unix and Matlab

2020: Supervision of MSc Meteorology group project – ‘How atypical was the recent flooding in Indonesia?’

2018: Co-Supervision of project of MSc Meteorology student, Zainab Ali - ‘Cocoa & Climate’

October 2013 – April 2015: Demonstrating weekly Python practical workshops for the undergraduate module ‘Programming for Mathematics and Business’

Completion of Learning and Teaching in Higher Education (LTHE) Stage 1 course.