

Steefan Contractor

Lvl 4 Mathews Bldg, Climate Change Research Centre | UNSW Sydney
ARC Centre of Excellence for Climate System Science
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Education

- Current PhD, Climate Science
Jan 2015 onwards ARC Centre of Excellence for Climate System Science & Climate Change Research Centre, Sydney, UNSW Sydney, Australia
Supervisors: A/Prof Lisa Alexander, Dr Markus Donat, Prof Steven Sherwood
Title: Has rainfall become more variable or more extreme across global land areas?
Expected Completion: August 2018
- 2009 - 2013 Bachelors of Science (Advanced) with Honours,
Major: Mathematical Physics
ARC Centre of Excellence for Quantum Computation and Communication Technology & School of Physics, UNSW Sydney, Australia
Thesis: High Frequency Measurements of Single Donors in Silicon
Advisors: Prof Sven Rogge, Dr Giuseppe Tettamanzi

Publications

Contractor, Steefan, Markus G. Donat, Lisa V. Alexander, Markus Ziese, Elke Rustemeier, Anja Meyer-Christoffer, Udo Schneider, Peter Finger, Andreas Becker and Imke Durre. "REGEN – A global land based dataset of daily precipitation ideal for analysing climatological changes". *In preparation*.

Contractor, Steefan, Markus G. Donat, Lisa V. Alexander. "Intensification of daily rainfall distribution across Australia". *Geophysical Research Letters* (2018). Under Review

Contractor, Steefan, Lisa V. Alexander, Markus G. Donat, and Nicholas Herold, "How Well Do Gridded Datasets of Observed Daily Precipitation Compare over Australia?" *Advances in Meteorology*, vol. 2015, Article ID 325718, 15 pages, (2015). doi:10.1155/2015/325718

Herold, N., L. V. Alexander, M. G. Donat, **S. Contractor**, and A. Becker, "How much does it rain over land?" *Geophysical Research Letters*, 43, 341–348, (2016). doi:10.1002/2015GL066615.

Conferences/Talks

- May 2018 **Talk**, 8th GEWEX Science Conference, Canmore, Alberta, Canada
Feb 2018 Poster, Australian Meteorological & Oceanographic Society and International Conference on Southern Hemisphere Meteorology and Oceanography Conference (AMOS-ICSHMO) 2018, Sydney, UNSW Australia
Dec 2017 **Talk**, American Geophysical Union (AGU) Fall Meeting 2017, New Orleans, Louisiana, USA
Nov 2017 Talk, Annual Progress Review, Climate Change Research Centre, UNSW Sydney
Feb 2017 **Talk**, Australian Meteorological & Oceanographic Society (AMOS) National Conference 2017, Canberra, Australia
Oct 2016 Talk, Annual Postgraduate Review, Climate Change Research Centre, UNSW Sydney

Sep 2016	Invited seminar , Global Precipitation Climatology Centre, Deutscher Wetterdienst (DWD), Offenbach, Hesse, Germany
Jun 2016	Talk , International Meeting on Statistical Climatology 2016, Canmore, Alberta, Canada
Jun 2016	Talk , Canadian Meteorological & Oceanographic Society conference 2016, Fredericton, NB, Canada
May 2016	Invited seminar , National Centres for Env. Information, National Oceanic & Atmos. Administration, Asheville, NC, USA
Feb 2016	Poster, Australian Meteorological & Oceanographic Society (AMOS) National Conference 2016, Melbourne, Australia
Oct 2015	Talk, Annual Postgraduate Review, Climate Change Research Centre, UNSW Sydney
July 2015	Poster, Australian Meteorological & Oceanographic Society (AMOS) National Conference 2015, Brisbane, Australia
Aug 2015	Talk , ARCCSS Extreme Precipitation Workshop Bureau of Meteorology, Melbourne, Australia

Scholarships/Awards

2016 - 2018	Australian Postgraduate Award, AU\$26,288 per annum
Jan 2015	ARC Centre of Excellence for Climate System Science (ARCCSS) domestic research scholarship, AU\$25,000
Dec - Jan 2014/15	ARCCSS Summer Research Scholarship, AU\$3500
Dec - Jan 2011/12	Faculty of Science Summer Research Scholarship, AU\$3000

Work Experience

2017 – 2018	Tutor, UNSW Sydney, Australia Course Name: CLIM3001 3 rd Year Climate System Science
2011 - 2017	Tutor, UNSW Sydney, Australia Course Names: PHYS 1160 Introduction to Astronomy, GENS4015 Brave New World
Aug 2013 - 2015	Research Assistant, The University of Sydney Condensed Matter Theory Group Project: Investigation of multiferroic properties of Cobalt doped perovskite ferroelectrics
2011 - 2015	Laboratory Demonstrator, UNSW Sydney First Year Physics Laboratory

Leadership Roles

2015	Student Representative for UNSW students, Early Career Researcher (ECR) Committee, ARC Centre of excellence for Climate System Science
2016	Social Representative, Climate Change Research Centre, UNSW Sydney
2011 - 2012	Elected Physoc (Physics society) representative, UNSW Sydney Role: Publicity officer and events coordinator

Public Outreach

I have co-created a website: isithotrightnow.com, that compares today's daily average temperatures against historical observations to highlight the warming signal in cities around Australia. The website offers easy to understand graphics and real-time data to journalists and general public related to regional changes and variability in temperatures, ultimately increasing public awareness and understanding of climate change.

Skills

Expert	R, Fortran, C programming
Intermediate	Python, HTML, CSS, SAS, Matlab, Mathematica, IDL, NCL
Data processing	CDO, Bash, SQL
Data visualisation	Tableau, XMGrace, R Shiny, D3
Documentation	Latex, Git, Markdown, RMarkdown

Numerical Modelling

- Weather Research and Forecasting Model (WRF) Version 3.0, NCAR, NOAA
- Density Functional Theory Modelling (Quantum Chemistry)
- Coupled Model Intercomparison Project Phase 5 (CMIP5) model output