Dr. Markus G. Donat

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https://www.bsc.es/discover-bsc/organisation/scientific-structure/climate-prediction

CURRENT POSITIONS

2018 – **Co-leader** of the Climate Prediction Group
Ramón y Cajal Researcher
Barcelona Supercomputing Center, Barcelona, Spain

2018 – **Associate Lecturer**
University of New South Wales (UNSW), Sydney, Australia

PREVIOUS POSITIONS

2015 – 2018 **Senior Research Fellow**
Climate Change Research Centre, UNSW, Sydney, Australia

2011 – 2014 **Postdoctoral Research Fellow**
Climate Change Research Centre, UNSW, Sydney, Australia

2010 **Postdoctoral Researcher**
Institute of Meteorology, Freie Universität Berlin, Germany

2006 – 2010 **Research Assistant and PhD candidate**
Institute of Meteorology, Freie Universität Berlin, Germany

EDUCATION

06/2010 **PhD** (Doctorate in Natural Sciences)
Institute of Meteorology, Freie Universität Berlin, Germany

01/2006 **Diploma degree** (equivalent M.Sc.) in Meteorology
Institute of Meteorology, Freie Universität Berlin, Germany

PERSONAL AWARDS, FELLOWSHIPS AND PRIZES

2019 – 2024 **Ramón y Cajal Fellowship** awarded by the Spanish Ministry of Science and Innovation

2017 **International Data Prize** awarded by World Climate Research Program (WCRP) / Global Climate Observing System (GCOS)

2015 – 2018 **Discovery Early Career Researcher Award** (DECRA) awarded by the Australian Research Council (ARC).

2016 **Prize for Best Published Paper by an Early Career Researcher,** ARC Centre of Excellence for Climate System Science

2014 **Finalist Australian Museum Eureka Prizes**, category Outstanding Early Career Researcher, as part of the "Extremes Team" (with Lisa Alexander and Sarah Perkins)

PHD STUDENT SUPERVISION

2020 – **Carlos Delgado Torres**
PhD, Barcelona Supercomputing Center / University of Barcelona
Planned completion in 2023

2016 – 2020 **Yiling Liu**
PhD, University of New South Wales, Australia
Thesis title: "Predictability of temperature and precipitation on interannual to decadal time scales in perfect-model experiments"

2015 – 2019 **Mia Gross**
PhD, University of New South Wales, Australia
Thesis title: "The disproportionate rates of change between extreme and mean temperatures over land"

2015 – 2019 **Steefan Contractor**
PhD, University of New South Wales, Australia
Thesis title: "Global changes in daily precipitation since 1950"

2016 – 2019 **Elisabeth Vogel**
PhD, co-supervisor, University of Melbourne, Australia
Thesis title: "The Impact of Climate Extreme Events on Global Agricultural Yields"

2016 – 2018 **Oliver Angelil**
PhD, University of New South Wales, Australia
Thesis title: "Uncertainty Around Probabilistic Event Attribution Statements for Extreme Weather Events"

MASTER/HONOURS STUDENT SUPERVISION

2019 **Carlos Delgado Torres**
Master thesis, Universidad Complutense de Madrid
Thesis title: "Impact of Model Initialization on Predictability of Weather Regimes over the Euro-Atlantic Region on Inter-annual to Decadal Timescales"

2019 – 2020 **Ferran López Martí**
Master thesis, Universidad de Barcelona
Thesis title: "Understanding the link between the extreme weather conditions in central Europe in spring 2018 and a preceding record-breaking sea ice reduction in the Bering sea"

2016 – 2017 **Laurence Garcia-Villada**
Honours, University of New South Wales, Australia
Thesis title: "Evaluation of El Niño Southern Oscillation Temperature and Precipitation Teleconnections in a Hierarchy of Datasets"

TEACHING UNIVERSITY COURSES AND SUMMER SCHOOLS

2018 **Course coordinator and Lecturer**
Atmospheric Sciences Course CLIM2001 (2 lectures and 1 tutorial per week, 12 weeks), University of New South Wales, Sydney, Australia

2017 **Lecturer**
Climate module of the Atmospheric Sciences course CLIM2001 (4 lectures), University of New South Wales, Sydney, Australia

2014-2017 **Guest Lecturer**
Climate Systems Science course CLIM3001, Lectures and Tutorials on weekly topics (1-2 lectures and 1 tutorial per year), University of New South Wales, Sydney, Australia

2014 **Instructor** for practical tutorials
WCRP-ICTP 2014 Summer school on Attribution and Prediction of Extremes Events, Trieste

SUPERVISION OF POSTDOCTORAL RESEARCHERS

2020 – **Aude Carreric**, Barcelona Supercomputing Center
2019 – **Rashed Mahmood**, Barcelona Supercomputing Center
2019 – **Vladimir Lapin**, Barcelona Supercomputing Center
2018 – **Xavier Levine**, Barcelona Supercomputing Center
2018 – **Etienne Tourigny**, Barcelona Supercomputing Center
2018 – **Simon Wild**, Barcelona Supercomputing Center
2018 – **Yohan Ruprich-Robert**, Barcelona Supercomputing Center
2018 – **Roberto Bilbao**, Barcelona Supercomputing Center
2018 – 2020 **Deborah Verfaille**, Barcelona Supercomputing Center
2018 – 2020 **Rachel White**, Barcelona Supercomputing Center
2018 – 2020 **Ivana Cvijanovic**, Barcelona Supercomputing Center
2018 **Oliver Angelil**, University of New South Wales, Sydney

CURRENT GRANTS AS PI

2020 – 2014 **LANDMARC** (Land-Use Based Mitigation for Resilient Climate Pathways),
Horizon 2020 Research and Innovation Action
PI and work package leader
Funding amount: 471.000 € (total project budget 7.000.000 €)

2019 – 2024 **Ramón y Cajal grant**
Personal fellowship by the Spanish Ministerio de Ciencia y Innovación
Funding amount: 208.600 €

2019 – 2021 **C3S_34c** (Prototype Service for Decadal Climate Predictions)
Copernicus Climate Change Service (C3S) contract
Funding amount: 259.000 € (total project budget: 897.200 €)

PREVIOUS GRANTS AS PI

2015 – 2018 **Discovery Early Career Researcher Award** (DECRA)
Personal fellowship awarded by the Australian Research Council
Funding amount: AU$ 370.000 (approx. 245.000 €)

2015 – 2016 **Decadal predictability of climate extremes**
Universities Australia – German Academic Exchange Service Joint Research Cooperation Scheme, Grand ID 57219579
Funding amount: AU$ 12.000 (total project budget: 20.000 €)

CURRENT GRANTS AS CO-INVESTIGATOR (OR GROUP SUPERVISOR)

2017 – 2022 **EUCP** (European Climate Prediction System)
Horizon 2020 Research and Innovation Action
Role: Co-I and BSC supervisor since 2018 (PI at BSC: Francisco Doblas-Reyes)
Funding amount: 1.026.500 € (total project budget: 12.999.000 €)

2019 – 2023 **4C** (Climate-Carbon Interactions in the Current Century)
Horizon 2020 Research and Innovation Action
Role: Co-I and BSC supervisor (PI at BSC: Raffaele Bernardello)
Funding amount: 835.200 € (total project budget: 7.784.750 €)

2019 – 2023 **TRIATLAS** (Tropical and South Atlantic - climate-based marine ecosystem prediction for sustainable management)
Horizon 2020 Research and Innovation Action
Role: BSC supervisor (PI at BSC: Pablo Ortega)
Funding amount: 258.000,00 € (total project budget: 11.000.000 €)

2017 – 2021 **MEDSCOPE** (MEDiterranean Services Chain based On climate PrEdictions)
Horizon 2020 ERA-NET
Role: Co-I and BSC supervisor since 2018 (PI at BSC: Pablo Ortega)
Funding amount: 352.000 € (total project funding: 4.439.000 €)

2016 – 2021 **APPLICATE** (Advanced Prediction in Polar regions and beyond: Modelling, observing system design and LInkages associated with ArctiC ClimATE change)
Horizon 2020 Research and Innovation Action
Role: Co-I and BSC supervisor since 2018 (PI at BSC: Pablo Ortega)
Funding amount: 738.500€ (total project budget: 8.715.000 €)

2017 – 2024 **CLEX** (Centre of Excellence for Climate Extremes)
Centre of Excellence funded by the Australian Research Council
Role: Associate Investigator
Total project funding: AU$ 30.000.000

PAST GRANTS AS CO-INVESTIGATOR OR COLLABORATOR

2011 – 2018 **ARCCSS** (Centre of Excellence for Climate System Science)
Centre of Excellence funded by the Australian Research Council
Role: Associate Investigator
Funding ID: CE110001028

2011 – 2014 **CLIMDEX** - global changes in observed climate extremes
Australian Research Council Linkage Project
Role: Postdoctoral Fellow
Funding ID: LP100200690

2009 – 2010 **Assessing future insurance risk from winter storms in Germany**
Research project funded by the German Insurance Association

Role: Research Associate

2006 – 2009 **ENSEMBLES** (Ensemble-based Predictions of Climate Changes and their Impacts)
European Commission's 6th Framework Programme
Role: Research Associate
Funding ID: GOCE-CT-2003-505539

POSTDOC FELLOWSHIPS OBTAINED BY MEMBERS OF MY GROUP

2021 – 2023 **Stefano Materia**, Marie Skłodowska-Curie Action Individual Fellowship (awarded in February 2021, Stefano will join my group later this year)
2020 – 2022 **Aude Carreric**, STARS Co-fund postdoctoral fellowship
2020 – 2022 **Simon Wild**, Juan de la Cierva-formación postdoctoral fellowship
2018 – 2020 **Yohan Ruprich-Robert**, Marie Skłodowska-Curie Action Individual Fellowship
2018 – 2020 **Rachel White**, Marie Skłodowska-Curie Action Individual Fellowship
2018 – 2020 **Ivana Cvijanovic**, Beatriu de Pinós Postdoctoral Fellow
2018 – 2020 **Xavier Levine**, STARS Co-fund postdoctoral fellowship
2018 – 2020 **Simon Wild**, STARS Co-fund postdoctoral fellowship

ORGANISATION OF SCIENTIFIC MEETINGS

2020 **Lead convener** of scientific session at AGU Fall Meeting, *Extreme Precipitation in Past, Present, and Future Climates*, December 2020 (virtual conference).
2019 **Lead convener** of scientific session at AGU Fall Meeting, *Extreme Precipitation in Past, Present, and Future Climates*, December 2019, San Francisco, USA.
2018 **Lead convener** of scientific session at joint Australian Meteorological and Oceanographic Society / International Conference for Southern Hemisphere Meteorology and Oceanography conference, *Climate extremes and impacts*, February 2018, Sydney, Australia.
2017 **Lead convener** of scientific session at AGU Fall Meeting, *Extreme Precipitation in Past, Present, and Future Climates*, December 2017, New Orleans, USA.
2017 **Lead convener** of scientific session at the Australian Meteorological and Oceanographic Society Annual Conference, *Climate Extremes*, February 2017, Canberra, Australia.
2016 **Program committee and session organizer,** *Climate data homogenization and Climate trends/variability assessment,* 13th International Meeting on Statistical Climatology, June 2016, Canmore, Canada.
2015 **Leading organizer**, Workshop on Understanding Processes Driving Precipitation Extremes, August 2015, Melbourne, Australia.
2015 **Organizing Committee**, WCRP Workshop on Data Requirements to Address the Grand Challenges on Weather and Climate Extremes, February 2015, Sydney, Australia.

2012 **Co-chair**, WMO Workshop (co-organized with UN-ESCWA and League of Arab States) on Climate Prediction/Projection and Extreme Events Indices in the Arab Region, March 2012, Casablanca, Morocco.

2010 **Co-convener** of scientific session at EGU General Assembly, *Climate change impact on economical and industrial activities*, May 2010, Vienna, Austria

COMMISSIONS OF TRUST / SERVICE ACTIVITIES / OUTREACH

2020 – **Member** World Meteorological Organization (WMO) Expert Team on Data Requirement for Climate Services (ET-DRC)

2020 – **Member** of the Science Plan Development team for the World Climate Research Program (WCRP) Lighthouse Activity on *Explaining and Predicting Earth System Change*

2018 – 2020 **Associated Expert** with the World Meteorological Organization (WMO) Commission for Climatology Expert Team on Data Development and Stewardship (ET-DDS)

2017 – **Editorial board member** of the journal *Atmosphere*, section Climatology

2015 – **Reviewer of funding proposals** for German Research Foundation (Deutsche Forschungsgemeinschaft, DFG), Australian Research Council (ARC), Copernicus Climate Change Service (C3S), French National Research Agency (ANR), Research Council of the University of Leuven (KU Leuven)

2011 – **Reviewer for Scientific Journals** (Publons profile: https://publons.com/author/1404254) 114 verified reviews for 24 different journals including Nature (2), Nature Climate Change (9), Nature Geoscience (3), Nature Communications (3), Journal of Climate (15), Journal of Geophysical Research (13), Geophysical Research Letters (12), Climate Dynamics (13), Environmental Research Letters (9), International Journal of Climatology (7), Bulletin of the American Meteorological Society (7), Quarterly Journal of the Royal Meteorological Society (2), and others

- **Contributing author** to national and international assessment activities
  - Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (WGI, Chapter 2)
  - Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (WGI, Chapter 11),
  - Report *Extreme Weather Events in Europe: preparing for climate change adaptation* for The European Academies Science Advisory Council (EASAC)

- **Media appearances** in major news outlets including ABC Radio, BBC, Euronews (TV life interview), The Sydney Morning Herald, The Guardian, Herald Sun, Newsweek, News.com.au, Financial Review, ScienceNews, Der Spiegel, La Voz de Galicia (Spanish newspaper), and others

- **Advising policy makers**. I contributed to
    - A Summary for Policymakers of key research outcomes from the ARC Centre of Excellence for Climate System Science for the Australian Government, Department of the Environment and Energy (2018)
    - An explainer to the Spanish Minister for Ecological Transition, Teresa Ribera, about the climatic drivers and impacts of the storm Filomena, which caused record snowfall amounts and related severe disruptions to parts of Spain (2021)

- **Making climate information publically available.** I am part of the development team of
    - http://www.climdex.org: A web platform to disseminate data and analyses of global observed climate extremes for public download. This website attracts on average more than 700 users per month (measured over the past 2 years March 2019 – February 2021).
    - https://decadal.bsc.es: A web service to disseminate operational decadal climate prediction information

SCIENTIFIC PUBLICATIONS

I have published **96 peer-reviewed journal articles** (including ten in *Nature*, *Nature Climate Change*, *Nature Geoscience* and *Nature Communications*) and **four book chapters** since 2010. These publications have been **cited more than 7,400 / 5,500 times** using Google Scholar / Scopus, and I have an **h-index of 40 / 39** (Google Scholar / Scopus).

Selected peer-reviewed journal publications

Please see full list at https://scholar.google.com/citations?user=0judg4UAAAAJ, underlined author names indicate students under my supervision.

Contractor, S., **M. G. Donat**, L. V. Alexander (2021), Changes in observed daily precipitation over global land areas since 1950, *Journal of Climate*, *34*(1), 3-19, https://doi.org/10.1175/JCLI-D-19-0965.1.

Dunn, R. J. H., L. V. Alexander, **M. G. Donat**, X. Zhang, M. Bador, N. Herold, et al. (2020), Development of an updated global land in-situ-based dataset of temperature and precipitation extremes: HadEX3, *Journal of Geophysical Research: Atmospheres*, 125, e2019JD032263. https://doi.org/10.1029/2019JD032263

Contractor, S., **M. G. Donat,** L. V. Alexander, M. Ziese, A. Meyer-Christoffer, U. Schneider, E. Rustemeier, A. Becker, I. Durre, R. S. Vose (2020), Rainfall Estimates on a Gridded Network (REGEN) – a global land-based gridded dataset of daily precipitation from 1950 to 2016, *Hydrology and Earth System Sciences*, 24, 919–943, https://doi.org/10.5194/hess-24-919-2020.

Gross, M. H., **M. G. Donat**, L. V. Alexander, S. C. Sherwood (2020), Amplified warming of seasonal cold extremes relative to the mean in the Northern Hemisphere extratropics, *Earth System Dynamics*, 11, 97–111, https://doi.org/10.5194/esd-11-97-2020, 2020.

Garcia-Villada, L. P., **M. G. Donat**, O. Angélil, A. S. Taschetto (2020), Temperature and precipitation responses to El Niño-Southern Oscillation in a hierarchy of datasets

with different levels of observational constraints, *Climate Dynamics*, 55, 2351–2376. https://doi.org/10.1007/s00382-020-05389-x

Donat, M. G., O. Angélil, A. M. Ukkola (2019), Intensification of precipitation extremes in the world's humid and water-limited regions, Environmental Research Letters, 14, 065003, https://doi.org/10.1088/1748-9326/ab1c8e

Vogel, E., **M. G. Donat**, L. V. Alexander, M. Meinshausen, D. K. Ray, D. Karoly, N. Meinshausen, K. Frieler (2019), The effects of climate extremes on global agricultural yields, Environmental Research Letters, 14, 054010, https://doi.org/10.1088/1748-9326/ab154b

Bellprat, O., V. Guemas, F. Doblas-Reyes, **M. G. Donat** (2019), Towards reliable extreme weather and climate event attribution, *Nature Communications*, 10(1), 1732.

Liu, Y., **M. G. Donat**, H. W. Rust, L. V. Alexander, M. H. England (2019), Decadal predictability of temperature and precipitation means and extremes in a perfect-model experiment, *Climate Dynamics*, 53, 3711–3729, https://doi.org/10.1007/s00382-019-04734-z

Liu, Y., **M. G. Donat**, A. S. Taschetto, F. J. Doblas-Reyes, L. V. Alexander, M. H. England (2019). A framework to determine the limits of achievable skill for interannual to decadal climate predictions. *Journal of Geophysical Research: Atmospheres*, 124, 2882– 2896. https://doi.org/10.1029/2018JD029541

Donat, M. G., A. J. Pitman, O. Angélil (2018), Understanding and reducing future uncertainty in midlatitude daily heat extremes via land surface feedback constraints, *Geophysical Research Letters*, 45, 10,627–10,636. https://doi.org/10.1029/2018GL079128

Walz, M. A., **M. G Donat**, G. C. Leckebusch (2018), Large-scale drivers and seasonal predictability of extreme wind speeds over the North Atlantic and Europe, *Journal of Geophysical Research: Atmospheres*, 123, 11,518–11,535. https://doi.org/10.1029/2017JD027958

Contractor, S., **M. G. Donat**, L. V. Alexander (2018), Intensification of the daily wet day rainfall distribution across Australia, *Geophysical Research Letters*, 45, 8568–8576. https://doi.org/10.1029/2018GL078875

Oliver, E. C .J. **M. G. Donat**, M. T. Burrows, P. J. Moore, D. A. Smale, L. V. Alexander, J. A. Benthuysen, M. Feng , A. Sen Gupta, A. J. Hobday, N. J. Holbrook, S. E. Perkins-Kirkpatrick, H. A. Scannell, S. C. Straub, T. Wernberg (2018), Longer and more frequent marine heatwaves over the past century, *Nature Communications*, 9, 1324, doi: 10.1038/s41467-018-03732-9

Gross, M. H., **M. G. Donat**, L. V. Alexander, and S. A. Sisson (2018), The Sensitivity of Daily Temperature Variability and Extremes to Dataset Choice. *J. Climate,* **31**, 1337–1359, https://doi.org/10.1175/JCLI-D-17-0243.1

Donat, M. G., A. J. Pitman, and S. I. Seneviratne (2017), Regional warming of hot extremes accelerated by surface energy fluxes, *Geophysical Research Letters*, 44, 7011–7019, doi:10.1002/2017GL073733.

Donat, M. G., L. V. Alexander, N. Herold, A. J. Dittus (2016), Temperature and precipitation extremes in century-long gridded observations, reanalyses, and atmospheric model simulations, *J. Geophys. Res. Atmos.*, 121, 11,174–11,189, doi:10.1002/2016JD025480

Donat, M. G., A. L. Lowry, L. V. Alexander, P. A. O'Gorman, N. Maher (2016), More extreme precipitation in the world's dry and wet regions, *Nature Climate Change*, 6, 508–513, doi:10.1038/nclimate2941

Seneviratne, S. I., **M. G. Donat**, A. J. Pitman, R. Knutti, R. L. Wilby (2016), Allowable CO2 emissions based on regional and impact-related climate targets, *Nature*, 529, 477–483, doi:10.1038/nature16542

Donat, M. G., A. D. King, J. T. Overpeck, L. V. Alexander, I. Durre, D. J. Karoly (2016), Extraordinary heat during the 1930s US Dust Bowl and associated large-scale conditions, *Climate Dynamics*, 46(1), 413-426, doi: 10.1007/s00382-015-2590-5

King, A. D., **M. G. Donat,** L. V. Alexander, D. J. Karoly (2015), The ENSO-Australian rainfall teleconnection in reanalysis and CMIP5, *Climate Dynamics*, 44 (9-10), 2623-2635, doi: 10.1007/s00382-014-2159-8

Donat, M. G., J. Sillmann, S. Wild, L. V. Alexander, T. Lippmann, F. W. Zwiers (2014), Consistency of temperature and precipitation extremes across various global gridded in situ and reanalysis data sets, *Journal of Climate,* 27, 5019–5035, doi:10.1175/JCLI-D-13-00405.1

Donat, M. G., L. V. Alexander, H. Yang, I. Durre, R. Vose, J. Caesar (2013), Global land-based datasets for monitoring climatic extremes, *Bulletin of the American Meteorological Society*, 94, 997-1006, doi:10.1175/BAMS-D-12-00109.1

Donat, M. G., L. V. Alexander, H. Yang, I. Durre, R. Vose, R. J. H. Dunn, K. M. Willett, E. Aguilar, M. Brunet, J. Caesar, B. Hewitson, C. Jack, A. M. G. Klein Tank, A. C. Kruger, J. Marengo, T. C. Peterson, M. Renom, C. Oria Rojas, M. Rusticucci, J. Salinger, A. S. Elrayah, S. S. Sekele, A. K. Srivastava, B. Trewin, C. Villarroel, L. A. Vincent, P. Zhai, X. Zhang and S. Kitching (2013), Updated analyses of temperature and precipitation extreme indices since the beginning of the twentieth century: The HadEX2 dataset, *J. Geophys. Res. Atmos.*, 118, 2098–2118, doi:10.1002/jgrd.50150

Donat, M. G. and L. V. Alexander (2012), The shifting probability distribution of global daytime and night-time temperatures, *Geophys. Res. Lett.*, 39, L14707, doi:10.1029/2012GL052459.

Donat, M. G., Pardowitz, T., Leckebusch, G. C., Ulbrich, U., and Burghoff, O. (2011), High-resolution refinement of a storm loss model and estimation of return periods of loss-intensive storms over Germany, *Nat. Hazards Earth Syst. Sci.*, 11, 2821-2833, doi:10.5194/nhess-11-2821-2011.

Donat, M. G., D. Renggli, S. Wild, L. V. Alexander, G. C. Leckebusch, and U. Ulbrich (2011), Reanalysis suggests long-term upward trends in European storminess since 1871, *Geophys. Res. Lett.*, 38, L14703, doi:10.1029/2011GL047995.

Donat, M.G., G.C. Leckebusch, S. Wild, and U. Ulbrich (2011), Future changes in European winter storm losses and extreme wind speeds inferred from GCM and RCM multi-model simulations, *Nat. Hazards Earth Syst. Sci.*, 11, 1351-1370, doi:10.5194/nhess-11-1351-2011.

Donat, M. G., G. C. Leckebusch, S. Wild, and U. Ulbrich (2010), Benefits and limitations of regional multi-model ensembles for storm loss estimations. *Climate Research*, 44, 211-225. doi:10.3354/cr00891.

Donat, M. G., G. C. Leckebusch, J. G. Pinto, and U. Ulbrich (2010), Examination of Wind Storms over Central Europe with respect to Circulation Weather Types and NAO phases. *International Journal of Climatology*, 30 (9), 1289 - 1300. doi:10.1002/joc.1982.

Donat, M. G., G. C. Leckebusch, J. G. Pinto, and U. Ulbrich (2010), European storminess and associated circulation weather types: future changes deduced from a multi-model ensemble of GCM simulations. *Climate Research*, 42, 27-43. doi:10.3354/cr00853.

Scholarly book chapters

Donat, M. G., J. Sillmann, E. M. Fischer (2020), Changes in climate extremes in observations and climate model simulations. From the past to the future. *In Climate Extremes and Their Implications for Impact and Risk Assessment*, Elsevier, pp. 31-57, https://doi.org/10.1016/B978-0-12-814895-2.00003-3.

King, A. D., **M. G. Donat**, E. Hawkins, and D. J. Karoly (2017), The timing of anthropogenic emergence in climate extremes. Chapter 6 in *Climate Extremes: Patterns, Trends, and Mechanisms*, S.-Y. Wang, J-H Yoon, C. Funk and R. Gillies (Eds.), Wiley UK, pp 93-103.

Lewis, S. C., D. J. Karoly, A. D. King, S. E. Perkins, and **M. G. Donat** (2017), Mechanisms explaining recent changes in Australian climate extremes. Chapter 15 in *Climate Extremes: Patterns, Trends, and Mechanisms*, S.-Y. Wang, J-H Yoon, C. Funk and R. Gillies (Eds.), Wiley UK, pp 249-263.

Ulbrich U., G. C. Leckebusch, **M. G. Donat** (2013), The most costly natural hazard in Europe: windstorms. In: *Natural Disasters and Adaptation to Climate Change* (Eds. S. Boulter, J. Palutikof, D. Karoly, and D. Guitart), Cambridge University Press, pp 109 – 120.

CONFERENCE PRESENTATIONS (ORAL OR POSTER)

I have authored or co-authored more than 150 abstracts and related presentations at scientific conferences and workshops, which are not included here for the sake of brevity.

Highlights include:

- Invited oral presentation at the AGU Fall meeting, December 2019, San Francisco, USA
- Invited established researcher to present at the WCRP Early Career Researchers Workshop *Water Cycle in a 1.5°C warmer world: interdisciplinary approaches*, December 2019, San Francisco, USA
- Plenary Presentation at International Meeting of Statistical Climatology, June 2019, Toulouse, France
- Invited expert to Scoping Meeting for the Establishment of the Arab Climate Outlook Forum (ArabCOF) co-organized by the WMO, October 2014, Amman, Jordan
- Invited oral presentation at the AGU Fall meeting, December 2014, San Francisco, USA
- Invited oral presentation at the Davos Atmosphere and Cryosphere Assembly DACA-13, July 2013, Davos, Switzerland

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2014 – American Geophysical Union
2013 – 2020 Australian Meteorological and Oceanographic Society
2010 – 2015 European Geosciences Union