

Julian Quinting

PhD

Kaiserstraße 12, 76133 Karlsruhe, Germany

☎ Contact: +49 721-60823066

✉ julian.quinting@kit.edu

🌐 https://www.imk-tro.kit.edu/14_7532.php

Education

- 11/2011 – 01/2015 **Karlsruhe Institute of Technology**, Karlsruhe, Germany
Doctoral Student, Advisor: *Dr. Sarah Jones*
Research: The impact of tropical convection on the dynamics and predictability of midlatitude Rossby waves: a climatological study
- 10/2006 – 10/2011 **Karlsruhe Institute of Technology**, Karlsruhe, Germany
Master Student, Advisor: *Dr. Sarah Jones*
Research: Structural characteristics of Typhoon Sinlaku (2008) during its extratropical transition: an observational study
- 06/2006 **High-school graduation (Abitur)**, Walram Gymnasium Menden, Germany

Scientific Career

- 09/2023 – present **Karlsruhe Institute of Technology**, *Head of research group “Meteorological Data Science”*, Karlsruhe, Germany.
Research: Advancing subseasonal predictions at reduced computational effort
- 04/2023 **University at Albany**, *Offer of an Assistant Professorship in Atmospheric and Environmental Sciences, declined*, Albany, United States.
- 02/2018 – 08/2023 **Karlsruhe Institute of Technology**, *Research Associate in group of Dr. Christian Grams*, Karlsruhe, Germany.
Research: Subseasonal predictability of North Atlantic-European Weather regimes and the role of diabatic outflow
- 01/2016 – 01/2018 **Monash University**, *Postdoctoral Research Fellow in group of Dr. Michael Reeder*, Melbourne, Australia.
Research: Dynamics of heat waves and hybrid cyclones in the Southern Hemisphere
- 01/2015 – 12/2015 **ETH Zurich**, *Postdoctoral Research Fellow in group of Dr. Heini Wernli*, Zurich, Switzerland.
Research: North Atlantic Waveguide and Downstream Impact Experiment (NAWDEX)
- 10/2013 – 12/2013 **University at Albany**, *Visiting Scientist with Dr. Lance Bosart*, Albany, United States.

03/2011 – 05/2011 **Naval Postgraduate School**, *Visiting Scientist with Dr. Patrick Harr and Dr. Michael Bell*, Monterey, United States.

Community Service

- Joint-Editor for Monthly Weather Review and Artificial Intelligence for the Earth Systems of the American Meteorological Society
- Member of the International Commission on Dynamical Meteorology (ICDM) of IUGG
- Member of the organizational team for the MathSEE Symposium 2023, Karlsruhe, Germany
- Co-convener of the “Atmospheric Rossby waves and Jet Dynamics, and their Impacts on Extreme Weather and Climate Events” Session, EGU general assembly 2022, Vienna
- Member of the science committee for the 19th Cyclone Workshop 2019, Kloster Seeon
- Co-convener of the “Dynamical Meteorology” Session, EGU general assembly 2019, Vienna
- Reviewer for journals: Quarterly Journal of the Royal Meteorological Society, Journal of Climate, Monthly Weather Review, Climate Dynamics, Geophysical Research Letters, Weather and Forecasting, Weather and Climate Dynamics, Journal of Southern Hemisphere Earth Systems Science
- Invited chief forecaster during NAWDEX field campaign 2016, Keflavik, Iceland
- Invited forecaster during HyMeX field campaign 2012, Corsica, France

Teaching & Supervision

- 11/2024 – present Supervision of MSc thesis of Kevin Gramlich, KIT
- 10/2024 – present Supervision of BSc thesis of Julia Bäessler, KIT
- 06/2024 – present Supervision of MSc thesis of Nicole Knopf, KIT
- 02/2024 – present Supervision of PhD thesis of Svenja Christ, KIT
- 01/2024 – present Supervision of MSc thesis of Isabel Pena, KIT
- 09/2023 – present Supervision of PhD thesis of Siyu Li, KIT
- 05/2022 – present Supervision of PhD thesis of Fabian Mockert, KIT
- 04/2024 – 07/2024 Supervision of BSc thesis of Marie Müller, KIT
- 07/2023 – 07/2024 Supervision of MSc thesis of Dorothea Schwärzel, University of Heidelberg
- 06/2023 – 06/2024 Supervision of MSc thesis of Yangfan Zhou, KIT
- 02/2023 – 01/2024 Supervision of MSc thesis of Christian Sperka, KIT
- 05/2022 – 04/2022 Supervision of MSc thesis of Fabian Mockert, KIT
- 06/2016 – present Supervision of PhD thesis of Cameron Henderson, Monash University
- 07/2022 – 07/2023 Supervision of MSc thesis of Siyu Li, KIT
- 12/2021 – 05/2022 Supervision of BSc thesis of Marie Lange, KIT
- 05/2021 – 04/2022 Supervision of MSc thesis of Fabian Mockert, KIT
- 02/2021 – 02/2022 Supervision of MSc thesis of Kilian Hermes, KIT
- 06/2020 – 12/2020 Supervision of MSc thesis of Elias Müller, KIT
- 06/2018 – 06/2019 Supervision of MSc thesis of Seraphine Hauser, KIT
- 10/2015 – 03/2016 Supervision of MSc thesis of Raphael Portmann, ETH Zurich

06/2013 – 06/2014 Supervision of MSc thesis of Marlon Maranan, KIT
 2020 – present Lecturer in “Synoptic Meteorology”, KIT
 Summer 2012–14 Lecturer in seminar on “Tropical Meteorology”, KIT
 Winter 2011 Teaching assistant in “Theoretical Meteorology”, KIT

Invited Presentations

- 2025: Johannes Gutenberg University of Mainz, Institute for Atmospheric Physics, Mainz, Germany: “Towards probabilistic data-driven weather forecasts for the sub-seasonal time-scale”
- 2024: German Meteorological Society, Offenbach, Germany: “Towards probabilistic data-driven weather forecasts for the sub-seasonal time-scale”
- 2024: MeteoSwiss, Zurich, Switzerland: “Towards probabilistic data-driven weather forecasts for the sub-seasonal time-scale”
- 2024: University of Bielefeld, Bielefeld, Germany: “Uncertainty quantification for data-driven weather models”
- 2024: Weizmann Institute of Science, Rehovot, Israel: “Probabilistic predictions with Pangu-Weather: Ensemble Generation and Uncertainty Growth”
- 2024: German Weather Service, Offenbach, Germany: “Probabilistic predictions with Pangu-Weather: Ensemble Generation and Uncertainty Growth”
- 2024: Danske Commodities, Aarhus, Denmark: “Weather regime prediction on subseasonal time-scales”
- 2023: IUGG General Assembly, Symposium of the International Association of Meteorology and Atmospheric Sciences, Berlin, Germany: “Machine learning-based feature identification to advance our understanding in dynamic meteorology”
- 2023: Monash University, School of Earth, Atmosphere, and Environment, Melbourne, Australia: “Deep Learning for the Verification of Synoptic-scale Processes in NWP and Climate Models”
- 2022: Stony Brook University, School of Marine and Atmospheric Sciences, Stony Brook, USA: “Deep Learning for the Verification of Synoptic-scale Processes in NWP and Climate Models”
- 2021: University of Bern, Institute of Geography, Bern, Switzerland: “Deep Learning for the Verification of Synoptic-scale Processes in NWP and Climate Models”
- 2021: Center for Western Weather and Water Extremes, UC San Diego, USA, online: “NAWDIC - general update and NAWDIC Halo”
- 2020: S2S Webinar Series: “Using a statistical model to verify warm conveyor belts in ECMWF’s subseasonal forecasts”
- 2020: Center for Western Weather and Water Extremes, UC San Diego, USA, online: “NAWDIC - Vision for a new international field campaign”
- 2019: Johannes Gutenberg University of Mainz, Institute for Atmospheric Physics, Mainz, Germany: “The dynamics of heat waves and hybrid cyclones in the Australian region”
- 2019: ECMWF Workshop “Observational Campaigns for better weather forecast, Reading, UK: “Forecast products for flight planning from a researchers’ perspective”
- 2019: University of Exeter, College of Engineering, Mathematics and Physical Sciences, Exeter, UK: “The intensity and motion of hybrid cyclones in a composite potential vorticity framework”
- 2017: ARC Centre of Excellence for Climate System Science Workshop, Canberra, Australia: “Southeastern Australian heat waves from a trajectory viewpoint”
- 2016: University of Leeds, Institute for Climate and Atmospheric Science, Leeds, UK: “On the

remote impact of tropical cyclones on midlatitude weather and predictability”

- 2016: Monash University, School of Earth Atmosphere and Environment, Clayton, Australia: “On the remote impact of tropical cyclones on midlatitude weather and predictability”

Outreach

- 2024: KIT’s public seminar series “Young talents: science and music”, Karlsruhe, Germany: “And now the weather forecast for the next three weeks”
- 2024: Science week Mathematics, Karlsruhe, Germany: “From farmers almanac to artificial intelligence: The (R)evolution of weather forecasting”
- 2024: Interview in UPAS Podcast, “Wie wird künstliche Intelligenz für die Wettervorhersage genutzt?”, in preparation
- 2023: Interview in KIT’s magazine LookIT: “Use of AI revolutionizes weather forecasting”
- 2023: Invited speaker to KIT Brain bites: “And now the weather forecast for the next three weeks”
- 2023: Operational Pangu-weather forecasts on kit-weather.de, http://www.kit-weather.de/pangu_comparison_maps.php
- 2023: Speaker at KIT’s open day: “And now the weather forecast for the next three weeks”
- 2023: Interview in Meteorological Technology International Magazine, “Forward thinking: A project to improve subseasonal forecasts at reduced computational power is now underway at Germany’s KIT”
- 2022: Invited guest to the radio program “SWR2 Forum” on the drought and heat in Germany 2022, “Heat, Fire, Drought – what are the effects of the great drought?”
- 2022: DFG photo competition for DFG wall calendar 2022 to increase visibility of atmospheric research
- 2021: Interview in “Badische Neueste Nachrichten” on the chances of machine learning in weather forecasting: “There will be a revolution in weather forecasting”
- 2021: KIT press release on the relation of flooding in western Germany 2021 to climate change, “Severe weather in North Rhine-Westphalia and Rhineland-Palatinate”
- 2021: Invited guest to the radio program “SWR2 Forum” on the dynamics and predictability of the flooding in western Germany 2021, “Floods in southwestern Germany - is climate change becoming a threat?”
- 2012: KIT’s public seminar series “Young talents: science and music”, Karlsruhe, Germany: “Eye to eye with a tropical cyclone - aircraft based measurements to improve weather forecasts”
- 2012: Kids-University, Sindelfingen, Germany: “How does a tropical cyclone form?”

Institutional responsibilities

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| 2023–present | Steering committee member of the KIT Graduate School Computational and Data Science |
| 2019–present | Project lead of future “North Atlantic Waveguide, Dry Intrusion and Downstream Impact Campaign (NAWDIC)”, KIT, Germany |
| 2018–2022 | Elected member of KIT convent, KIT, Germany |
| 2016–2017 | Organizer of the Internal Weather Seminar, Monash University, Australia |
| 2015 | Assistant project manager of “North Atlantic Waveguide and Downstream Impact Experiment (NAWDEX)”, ETH Zurich, Switzerland |

Third-party funding record

- 2025: PI of DFG HALO-SPP project “North Atlantic Waveguide, Dry Intrusion and Downstream Impact Campaign”, 1,435k€
- 2024: PI of DFG-ANR project “Dry Intrusion and Cloud Head winds On Top Of Marine Interfaces”, 412k€
- 2024: Co-PI in Natural Environment Research Council (NERC) project lead by University of Exeter, Climate Change Impact on Midlatitude Cyclone Intensity, Tracks, and Impacts (CLIM-CITI), 802k€
- 2024: Co-PI in Federal Ministry of Education and Research (BMBF) project, WarmWorld – module “Smarter”, 499k€
- 2023: PI in Federal Ministry of Education and Research (BMBF) project, ClimXtreme – a research network on climate change and extreme events, 275k€
- 2023: PI in KIT YIN Grant, Data-driven weather models: Towards improved uncertainty quantification, interpretability and efficiency, 27k€
- 2022: PI of ERC Starting Grant, Advancing Sub-Seasonal Predictions at Reduced computational Effort (ASPIRE), 1,500k€
- 2021: PI of bridge-PhD funded by KIT Center Mathematics in Sciences, Engineering, and Economics, Probabilistic weather regime prediction: Combining physical models and generative machine learning, 105k€
- 2021: Co-PI in KIT Excellence Fund Future Fields project, A new Testbed for Exploring Machine Learning in Atmospheric Prediction (TEEMLEAP), 354k€
- 2019: DAAD Partnership Program with the University of Tsukuba, Japan, 20k€
- 2013: Karlsruhe House of Young Scientists Research Travel Grant for research visit at the University at Albany, United States
- 2013: International Association of Meteorology and Atmospheric Sciences Travel Grant to the Davos Atmosphere and Cryosphere Assembly, Davos, Switzerland
- 2012: Karlsruhe House of Young Scientists Travel Grant to the 4th International Workshop on Extratropical Transition, St. Adele, Canada
- 2012: Karlsruhe House of Young Scientists “Event Planning Support” Grant for the PANDOWAE Young Scientists Winter School

Publications in review

Bülte, C., Horat, N., **Quinting, J.**, & Lerch, S. (2024). Uncertainty quantification for data-driven weather models. arXiv preprint arXiv:2403.13458. <https://arxiv.org/abs/2403.13458v1>

Dolores-Tesillos, E., Martius, O., and **Quinting, J.** (2024). On the role of moist and dry processes for atmospheric blocking biases in the Euro-Atlantic region in CMIP6, EGU sphere [preprint]. <https://doi.org/10.5194/egusphere-2024-2878>

Henderson, C.R., Barnes, M., Reeder, M.J., **Quinting, J.F.** & Jakob, C. (2024). Heavy Summer Rainfall in Southeastern Australia. submitted to Quarterly Journal of the Royal Meteorological Society

Mass, A., Andersen, H., Cermak, J., Formenti, P., Pauli, E., and **Quinting, J.** (2024). A satellite-based analysis of semi-direct effects of biomass burning aerosols on fog and low cloud dissipation in the Namib Desert, EGU sphere [preprint], <https://doi.org/10.5194/egusphere-2024-1627>

Wilhelm, J., **Quinting, J.**, Burba, M. et al. TEEMLEAP - A new testbed for exploring machine learning in atmospheric prediction for research and education. ESS Open Archive. December 21, 2024. <https://doi.org/10.22541/essoar.173482059.96151727/v1>

Peer-reviewed publications

To, D. A., **Quinting, J.**, Hoshyaripour, G. A., Götz, M., Streit, A., and Debus, C. (2024). Architectural Insights and Training Methodology Optimization of Pangu-Weather, Geosci. Model Dev., 17, 8873–8884. <https://doi.org/10.5194/gmd-17-8873-2024>

Mockert, F., Grams, C. M., Lerch, S., Osman, M., **Quinting, J.** (2024). Multivariate post-processing of probabilistic sub-seasonal weather regime forecasts. Q. J. R. Meteorol. Soc., 150, 4771–4787. <https://doi.org/10.1002/qj.4840>

Schäfler, A., Krüger, K., Oertel, A., **Quinting, J. F.**, Raveh-Rubin, S. (2024). Indication for biases in dry intrusions and the marine boundary layer over the Azores in ECMWF short-term forecasts and analyses. Geophysical Research Letters, 51, e2024GL109601. <https://doi.org/10.1029/2024GL109601>

Henderson, C.R., Reeder, M.J., Parker, T.J., **Quinting, J.F.** Jakob, C. (2024). Summer Heatwaves in Southeastern Australia. Q. J. R. Meteorol. Soc., 150, 4285–4305. <https://doi.org/10.1002/qj.4816>

Wandel, J., Büeler, D., Knippertz, P., **Quinting, J. F.**, & Grams, C. M. (2024). Why moist dynamic processes matter for the sub-seasonal prediction of atmospheric blocking over Europe. Journal of Geophysical Research: Atmospheres, 129, e2023JD039791. <https://doi.org/10.1029/2023JD039791>

Hermes, K., **Quinting, J.**, Grams, C.M., Hoose, C. & Hoshyaripour, G.A. (2024) Impact of Saharan dust outbreaks on short-range weather forecast errors in Europe. Quarterly Journal of the Royal Meteorological Society, 1–20. Available from: <https://doi.org/10.1002/qj.4666>

Quinting, J. F., Grams, C. M., Chang, E. K.-M., Pfahl, S., & Wernli, H. (2024) Warm conveyor

belt activity over the Pacific: modulation by the Madden–Julian Oscillation and impact on tropical–extratropical teleconnections, *Weather Clim. Dynam.*, 5, 65–85, <https://doi.org/10.5194/wcd-5-65-2024>

Matsunobu, T., **Quinting, J.F.**, Grams, C.M. & Matsueda, M. (2023). Regional extreme precipitation events in wintertime Japan facilitated by East-Asian large-scale flow patterns, *SOLA*, Online ISSN 1349-6476, <https://doi.org/10.2151/sola.2023-033>

Pickl, M., **Quinting, J.F.** & Grams, C.M. (2023). Warm conveyor belts as amplifiers of forecast uncertainty. *Q. J. R. Meteorol. Soc.*, 1–22, <https://doi.org/10.1002/qj.4546>

Seifert, A., Bachmann, V., Filipitsch, F., Förstner, J., Grams, C. M., Hoshyaripour, G. A., **Quinting, J.**, Rohde, A., Vogel, H., Wagner, A., and Vogel, B. (2023). Aerosol–cloud–radiation interaction during Saharan dust episodes: the dusty cirrus puzzle, *Atmos. Chem. Phys.*, 23, 6409–6430, <https://doi.org/10.5194/acp-23-6409-2023>

Ludwig, P., Ehmele, F., Franca, M. J., Mohr, S., Caldas-Alvarez, A., Daniell, J. E., Ehret, U., Feldmann, H., Hundhausen, M., Knippertz, P., Küpfer, K., Kunz, M., Mühr, B., Pinto, J. G., **Quinting, J.**, Schäfer, A. M., Seidel, F., and Wisotzky, C. (2023). A multi-disciplinary analysis of the exceptional flood event of July 2021 in central Europe – Part 2: Historical context and relation to climate change, *Nat. Hazards Earth Syst. Sci.*, 23, 1287–1311, <https://doi.org/10.5194/nhess-23-1287-2023>

Oertel, A., Pickl, M., **Quinting, J. F.**, Hauser, S., Wandel, J., Magnusson, L., et al. (2023). Everything hits at once: How remote rainfall matters for the prediction of the 2021 North American heat wave. *Geophys. Res. Lett.*, 50, e2022GL100958. <https://doi.org/10.1029/2022GL100958>

Mohr, S., Ehret, U., Kunz, M., Ludwig, P., Caldas-Alvarez, A., Daniell, J. E., Ehmele, F., Feldmann, H., Franca, M. J., Gattke, C., Hundhausen, M., Knippertz, P., Küpfer, K., Mühr, B., Pinto, J. G., **Quinting, J.**, Schäfer, A. M., Scheibel, M., Seidel, F., and Wisotzky, C. (2023). A multi-disciplinary analysis of the exceptional flood event of July 2021 in central Europe – Part 1: Event description and analysis, *Nat. Hazards Earth Syst. Sci.*, 23, 525–551, <https://doi.org/10.5194/nhess-23-525-2023>

Quinting, J. F., Grams, C. M., Oertel, A., & Pickl, M. (2022). EuLerian Identification of ascending AirStreams (ELIAS 2.0) in Numerical Weather Prediction and Climate Models. Part II: Model application to different data sets, *Geosci. Model Dev.*, 15, 731–744 <https://doi.org/10.5194/gmd-15-731-2022>

Quinting, J. F., & Grams, C. M. (2022). EuLerian Identification of ascending Air Streams (ELIAS 2.0) in Numerical Weather Prediction and Climate Models. Part I: Development of deep learning model, *Geosci. Model Dev.*, 15, 715–730, <https://doi.org/10.5194/gmd-15-715-2022>

Hochman, A., Messori, G., **Quinting, J. F.**, Pinto, J. G., & Grams, C. M. (2021). Do Atlantic-European weather regimes physically exist?. *Geophysical Research Letters*, 48, e2021GL095574. <https://doi.org/10.1029/2021GL095574>

Büeler, D., Ferranti, L., Magnusson, L., **Quinting, J. F.**, & Grams, C.M. (2021). Year-round

sub-seasonal forecast skill for Atlantic-European weather regimes. *Q. J. R. Meteorol. Soc.*, 147, 4283-4309, <https://doi.org/10.1002/qj.4178>

Wandel, J., **Quinting, J. F.**, & Grams, C. M. (2021). Toward a systematic evaluation of warm conveyor belts in numerical weather prediction and climate models. Part II: Verification of operational reforecasts, *Journal of the Atmospheric Sciences*, 78, 3965-3982, <https://doi.org/10.1175/JAS-D-20-0385.1>

Quinting, J. F., & Grams, C. M., 2021: Toward a systematic evaluation of warm conveyor belts in numerical weather prediction and climate models. Part I: Predictor selection and logistic regression model, *Journal of the Atmospheric Sciences*, 78, 1465-1485, <https://doi.org/10.1175/JAS-D-20-0139.1>

Hochman, A., Scher, S., **Quinting, J.**, Pinto, J. G., and Messori, G., 2021: A new view of heat wave dynamics and predictability over the eastern Mediterranean, *Earth Syst. Dynam.*, 12, 133-149, <https://doi.org/10.5194/esd-12-133-2021>

Hochman, A., Scher, S., **Quinting, J.**, Pinto, J. G., Messori, G., 2020: Dynamics and predictability of cold spells over the Eastern Mediterranean. *Clim. Dyn.*. <https://doi.org/10.1007/s00382-020-05465-2>

Mohr, S., Wilhelm, J., Wandel, J., Kunz, M., Portmann, R., Punge, H. J., Schmidberger, M., **Quinting, J. F.**, and Grams, C. M., 2020: The role of large-scale dynamics in an exceptional sequence of severe thunderstorms in Europe May–June 2018, *Weather Clim. Dynam.*, 1, 325–348, <https://doi.org/10.5194/wcd-1-325-2020>

Spensberger, C., Madonna, E., Boettcher, M., Grams, C.M., Papritz, L., **Quinting, J. F.**, Röthlisberger, M., Sprenger, M. and Zschenderlein, P., 2020: Dynamics of concurrent and sequential Central European and Scandinavian heatwaves. *Q. J. R. Meteorol. Soc.*, 146, 2998-3013, <https://doi.org/10.1002/qj.3822>

Hauser, S., Grams, C.M., Reeder, M.J., McGregor, S., Fink, A.H. and **Quinting, J. F.**, 2020: A weather system perspective on winter-spring rainfall variability in southeastern Australia during El Niño. *Q. J. R. Meteorol. Soc.*, 146, 2614-2633, <https://doi.org/10.1002/qj.3808>

Andersen, H., Cermak, J., Fuchs, J., Knippertz, P., Gaetani, M., **Quinting, J.**, Sippel, S., and Vogt, R., 2020: Synoptic-scale controls of fog and low-cloud variability in the Namib Desert. *Atmos. Chem. Phys.*, 20, 3415-3438, <https://www.atmos-chem-phys.net/20/3415/2020/>

Catto, J. L., Ackerley, D., Booth, J. F., Champion, A. J., Colle, B. A., Pfahl, S., Pinto, J. G., **Quinting, J. F.**, and Seiler, C., 2019: The Future of Midlatitude Cyclones. *Curr. Clim. Change Rep.*, 5, 407-420, <https://doi.org/10.1007/s40641-019-00149-4>

Babić, K., Kalthoff, N., Adler, B., **Quinting, J. F.**, Lohou, F., Dione, C., and Lothon, M., 2019: What controls the formation of nocturnal low-level stratus clouds over southern West Africa during the monsoon season? *Atmos. Chem. Phys.*, 19, 13489–13506, <https://doi.org/10.5194/acp-19-13489-2019>

Parker, T. J., **Quinting, J. F.**, and Reeder, M. J., 2019: The synoptic-dynamics of summertime heat waves in the Sydney area (Australia), *J. Southern Hemis. Earth Sys. Sci.*, 69, 116–130, <https://doi.org/10.1071/ES19004>

Quinting, J. F., & Vitart, F., 2019: Representation of synoptic-scale Rossby wave packets and blocking in the S2S prediction project database. *Geophys. Res. Lett.*, 46, 1070– 1078. <https://doi.org/10.1029/2018GL081381>

Keller, J.H., C.M. Grams, M. Riemer, H.M. Archambault, L. Bosart, J.D. Doyle, J.L. Evans, T.J. Galarneau, K. Griffin, P.A. Harr, N. Kitabatake, R. McTaggart-Cowan, F. Pantillon, **J. Quinting**, C.A. Reynolds, E.A. Ritchie, R.D. Torn, and F. Zhang, 2018: The Extratropical Transition of Tropical Cyclones Part II: Interaction with the midlatitude flow, downstream impacts, and implications for predictability. *Mon. Wea. Rev.*, 147, 1077–1106, <https://doi.org/10.1175/MWR-D-17-0329.1>

Quinting, J. F., Reeder, M. J., and J. L. Catto, 2018: The intensity and motion of hybrid cyclones in the Australian region in a composite potential vorticity framework. *Q. J. R. Meteorol. Soc.*, 145, 273–287, <https://doi.org/10.1002/qj.3430>

Quinting, J. F., Catto, J. L., and M. J. Reeder, 2018: Synoptic climatology of hybrid cyclones in the Australian region. *Q. J. R. Meteorol. Soc.*, 145, 288–302, <https://doi.org/10.1002/qj.3431>

Quinting, J. F., T. Parker, and M.J. Reeder, 2018: Two Synoptic Routes to Subtropical Heat Waves as Illustrated in the Brisbane Region of Australia, *Geophys. Res. Lett.*, 45, 10,700– 10,708, <https://doi.org/10.1029/2018GL079261>

Schäfler, A., and Coauthors, 2018: The North Atlantic Waveguide and Downstream Impact Experiment. *Bull. Amer. Meteor. Soc.*, 99, 1607–1637, <https://doi.org/10.1175/BAMS-D-17-0003.1>

Portmann R., B. Crezee, **J. Quinting**, and H. Wernli, 2018: The complex life cycles of two long-lived potential vorticity cut-offs over Europe. *Q. J. R. Meteorol. Soc.*, 144, 701–719, <https://doi.org/10.1002/qj.3239>

Evans, C., K.M. Wood, S.D. Aberson, H.M. Archambault, S.M. Milrad, L.F. Bosart, K.L. Corbosiero, C.A. Davis, J.R. Dias Pinto, J. Doyle, C. Fogarty, T.J. Galarneau, C.M. Grams, K.S. Griffin, J. Gyakum, R.E. Hart, N. Kitabatake, H.S. Lentink, R. McTaggart-Cowan, W. Perrie, **J. F. Quinting**, C.A. Reynolds, M. Riemer, E.A. Ritchie, Y. Sun, and F. Zhang, 2017: The Extratropical Transition of Tropical Cyclones. Part I: Cyclone Evolution and Direct Impacts. *Mon. Wea. Rev.*, 145, 4317–4344, <https://doi.org/10.1175/MWR-D-17-0027.1>

Quinting, J. F. and M.J. Reeder, 2017: Southeastern Australian Heat Waves from a Trajectory Viewpoint. *Mon. Wea. Rev.*, 145, 4109–4125, <https://doi.org/10.1175/MWR-D-17-0165.1>

Schneidereit, A., D.H. Peters, C.M. Grams, **J. F. Quinting**, J.H. Keller, G. Wolf, F. Teubler, M. Riemer, and O. Martius, 2017: Enhanced Tropospheric Wave Forcing of Two Anticyclones in the Prephase of the January 2009 Major Stratospheric Sudden Warming Event. *Mon. Wea. Rev.*, 145, 1797–1815, <https://doi.org/10.1175/MWR-D-16-0242.1>

Quinting, J. F. and S.C. Jones, 2016: On the Impact of Tropical Cyclones on Rossby Wave Packets: A Climatological Perspective. *Mon. Wea. Rev.*, 144, 2021–2048, <https://doi.org/10.1175/MWR-D-14-00298.1>

Quinting, J. F., M.M. Bell, P.A. Harr, and S.C. Jones, 2014: Structural Characteristics of T-PARC Typhoon Sinlaku during Its Extratropical Transition. *Mon. Wea. Rev.*, 142, 1945–1961, <https://doi.org/10.1175/MWR-D-13-00306.1>

Other publications

Quinting, J. F., & Grams, C. M. (2021). EuLerian Identification of ascending AirStreams (ELIAS 2.0) in Numerical Weather Prediction and Climate Models. Zenodo. <https://doi.org/10.5281/zenodo.5154980>

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