

# Daniel Argüeso

## Curriculum Vitae

---

Meteorology Group, Dpt. of Physics  
University of Balearic Islands  
Cra. de Valldemossa Km 7.5  
07122 Palma de Mallorca, Illes Balears, Spain.  
p: (+34) 971 17 2338  
[d.argueso@uib.es](mailto:d.argueso@uib.es)  
[personal website](#)

## Employment

present

***Marie Skłodowska-Curie Actions IF fellow***

Meteorology Group, Department of Physics  
University of Balearic Islands  
Palma, Spain

Topics: Convective processes in the Maritime Continent, Air-land-sea interactions generating and modulating precipitation, simulating realistic precipitation in the tropics, convection-permitting regional climate modelling

03/2016–04/2017

***Post-doctoral research fellow***

Department of Atmospheric Sciences, SOEST  
University of Hawai'i at Mānoa  
Honolulu, HI, United States

Topics: Regional climate modelling and hindcast for wind power applications.

11/2011–03/2016

***Post-doctoral research fellow***

Climate Change Research Centre  
University of New South Wales  
Sydney, Australia

Topics: Ensemble of high-resolution climate change projections, interaction with impact researchers to generate useful climate projections, impact of cities and urban development on local climate (e.g heat stress), changes in mesoscale dynamics and extreme precipitation, changes and variability of heat waves, convection-permitting regional climate modelling.

5/2011–11/2011

***Research Assistant***

Applied Physics Department, Universidad de Granada  
Granada, Spain

Topics: High-resolution climate change projections using dynamical downscaling, present and future characteristics of extreme events.

5/2007–5/2011

***Research Assistant, PhD Student***

Applied Physics Department, Universidad de Granada

Granada, Spain Topics: High-resolution climate change projections, impact of parameterizations on model performance, model evaluation, adaptation of model to climate applications, predictability of river flows, transport in the planetary boundary layer.

## Education

**Ph.D in Physics**, Oct 2011, Universidad de Granada, Granada (Spain)

Thesis title: *High-resolution Projections of Climate Change over the Iberian Peninsula Using a Mesoscale Model*

**M.S., Geophysics and Meteorology**, Dec 2007, Universidad de Granada, Granada (Spain)

Thesis title: *An approximation to Mesoscale Model MM5: Application to Southern Iberian Peninsula*

**B.S., Physics**, Sep 2005, Universidad de Salamanca, Salamanca (Spain)

5-year undergraduate education with specialisation in Atmospheric Physics (2 years). First half of the undergraduate (3 years) completed in Universidad de Córdoba, Córdoba (Spain) and European international mobility program (1 year) completed in Università degli Studi di Modena e Reggio Emilia, Modena (Italy)

## Funding and Awards

**Marie Skłodowska-Curie Actions Individual Fellowship**, 2017-2019, University of Balearic Islands (Spain)

Simulating Realistic High-resolution precipitation in the Tropics (REHIPRE) - H2020-MSCA-IF-2016-743547

Keywords: Maritime Continent, Convection-permitting models, Precipitation, Sea-breeze, Air-Sea-Land interactions

H2020 EU-funded fellowship

## Publications

### Journal papers (28)

- [1] Y. Li, N. Jourdain, A.S. Taschetto, A. Sen Gupta, **D. Argüeso**, S. Masson, and W. Cai. Resolution dependence of the precipitation and diurnal cycle over the Maritime Continent. *Climate Dynamics*, 48(11-12):4009–4028, 2017.
- [2] L. Fita, J.P. Evans, **D. Argüeso**, Y. Liu, and A. King. Evaluation of the regional climate response in Australia to large-scale climate modes in the historical NARcliM simulations. *Climate Dynamics*, 2016. Accepted Nov 2016.
- [3] J.P. Evans, **D. Argüeso**, R. Olson, and A. Di Luca. Bias-corrected regional climate projections of extreme rainfall in south-east Australia. *Theoretical and Applied Climatology*, 2016. Accepted 2016.
- [4] **D. Argüeso**, A. Di Luca, S.E. Perkins-Kirkpatrick, and J.P. Evans. Seasonal mean temperatures changes control future heat waves. *Geophysical Research Letters*, 43:7653–7660, 2016.
- [5] T. Loridan, L. Coates, **D. Argüeso**, S.E. Perkins-Kirkpatrick, and J. McAneney. The excess heat factor as a metric for heat related fatalities: defining heatwave risk categories. *Australian Journal of Emergency Management*, 31(4):31–37, 2016.
- [6] R. Olson, J.P. Evans, **D. Argüeso**, and A. Di Luca. The NARcliM Project: Model Agreement and Significance of Climate Projections. *Climate Research*, 69(3):209–227, 2016.
- [7] A. Di Luca, J.P. Evans, A. Pepler, L.V. Alexander, and **D. Argüeso**. Evaluating the representation of Australian East Coast Lows in a regional climate model ensemble. *Journal of Southern Hemisphere Earth System Science*, 66:108–124, 2016.

- [8] S.E. Perkins, C. J. White, L.V. Alexander, **D. Argüeso**, G. Boschat, T. Cowan, J.P. Evans, M. Ekström, E.C.J. Oliver, and A. Purich. Natural hazards in Australia: heatwaves. *Climatic Change*, 139(1):101–114, 2016.
- [9] A. Di Luca, **D. Argüeso**, J.P. Evans, R. de Elía, and R. Laprise. Quantifying the overall added value of dynamical downscaling and the contribution from different spatial scales. *Journal of Geophysical Research*, 121(4):1575–1590, 2016.
- [10] I. Macadam, **D. Argüeso**, J.P. Evans, De Li Liu, and A.J. Pitman. The effect of bias correction and climate model resolution on wheat simulations forced with a Regional Climate Model ensemble. *International Journal of Climatology*, 36(14):4577–4591, 2016.
- [11] R. Lorenz, **D. Argüeso**, M. Donat, A.J. Pitman, B. van den Hurk, A. Berg, D. Lawrence, F. Cheruy, A. Ducharne, S. Hagemann, A. Meier, P. Milly, and S. Seneviratne. Influence of land-atmosphere feedbacks on temperature extremes in the GLACE-CMIP5 ensemble. *Journal of Geophysical Research-Atmospheres*, 121(2):607–623, 2016.
- [12] F. Ji, J.P. Evans, J. Teng, Y. Scorgie, **D. Argüeso**, A. Di Luca, and R. Olson. Evaluation of long-term precipitation and temperature WRF simulations for southeast Australia. *Climate Research*, 67:99–115, 2016.
- [13] **D. Argüeso**, A. Di Luca, and J.P. Evans. Precipitation over urban areas in the western Maritime Continent using a convection-permitting model. *Climate Dynamics*, 47(3):1143–1159, 2016.
- [14] A. Di Luca, J.P. Evans, A.S. Pepler, L. Alexander, and **D. Argüeso**. Resolution sensitivity of cyclone climatology over eastern Australia using six reanalysis products. *Journal of Climate*, 28:9530–9549, 2015.
- [15] S.E. Perkins, **D. Argüeso**, and C. J. White. Relationships between climate variability, soil moisture, and Australian heatwaves. *Journal of Geophysical Research*, 120:8144–8164, 2015.
- [16] M.R. Grose, J. Bhend, **D. Argüeso**, M. Ekström, A. Dowdy, P. Hoffman, J.P. Evans, and B. Timbal. Comparison of various climate change projections of eastern Australian rainfall. *Australian Meteorological and Oceanographic Journal*, 65(1):72–89, 2015.
- [17] J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, Y. Castro-Díez, **D. Argüeso**, and M.J. Esteban-Parra. Long-range seasonal streamflow forecasting over the Iberian Peninsula using large-scale atmospheric and oceanic information. *Water Resources Research*, 51:3543–3567, 2015.
- [18] **D. Argüeso**, J.P. Evans, A.J. Pitman, and A. Di Luca. Effects of city expansion on heat stress under climate change conditions. *PLOS ONE*, 10(2):e0117066, 2015.
- [19] F. Ji, J.P. Evans, **D. Argüeso**, L. Fita, and A. Di Luca. Using large-scale diagnostic quantities to investigate change in east coast lows. *Climate Dynamics*, 45(9):2443–2453, 2015.
- [20] J.P. Evans, F. Ji, C. Lee, P. Smith, **D. Argüeso**, and L. Fita. A regional climate modelling projection ensemble experiment - NARClIM. *Geoscientific Model Development*, 7(2):621–629, 2014.
- [21] **D. Argüeso**, J.P. Evans, L.Fita, and K.J. Bormann. Temperature response to future urbanization and climate change. *Climate Dynamics*, 42(7-8):2183–2199, 2014.
- [22] **D. Argüeso**, J.P. Evans, and L.Fita. Precipitation bias correction of very high resolution regional climate models. *Hydrology and Earth System Sciences*, 17:4379–4388, 2013.
- [23] **D. Argüeso**, J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. High-resolution projections of mean and extreme precipitation over Spain using the WRF model (2070-2099 vs. 1970-1999). *Journal of Geophysical Research-Atmospheres*, 117(D12108), 2012.
- [24] **D. Argüeso**, J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Evaluation of WRF mean and extreme precipitation over Spain: present climate (1970-1999). *Journal of Climate*, 25(14):4883–4897, 2012.

- [25] A.S. Kowalski and **D. Argüeso**. Scalar arguments of the mathematical functions defining molecular and turbulent transport of heat and mass in compressible fluids. *Tellus B*, 63B:1059–1066, 2011.
- [26] J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Trends of extreme precipitation and associated synoptic patterns over the southern Iberian Peninsula. *Journal of Hydrology*, 409:497–511, 2011.
- [27] **D. Argüeso**, J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, M.J. Esteban-Parra, J. Dudhia, and Y. Castro-Díez. Evaluation of WRF parameterizations for climate studies over Southern Spain using a multi-step regionalization. *Journal of Climate*, 24(21):5633–5651, 2011.
- [28] S.R. Gámiz-Fortis, J.M. Hidalgo-Muñoz, **D. Argüeso**, M.J. Esteban-Parra, and Y. Castro-Díez. Spatio-temporal variability in Ebro river basin (NE Spain): global SST as potential source of predictability on decadal time scales. *Journal of Hydrology*, 409:759–775, 2011.

### Submitted Papers (2)

- [1] **D. Argüeso** and S. Businger. Wind power characteristics of Oahu, Hawaii. *Renewable Energy*. Submitted April 2017.
- [2] F. Ji, J.P. Evans, A. Di Luca, N. Jiang, R. Olson, **D. Argüeso**, L. T-C Chang, Y. Scorgie, and M. Riley. Projected change in characteristics of near surface temperature inversions for southeast Australia. *Climate Dynamics*, 2017. Submitted March 2017.

### Book chapters (2)

- [1] I. Bladé, Y. Castro-Díez, V. Altava-Ortiz, R. Ansell, and **D. Argüeso** et al. *Climate in Spain: Past, present and future. Regional climate change assessment report*, chapter 2: Atmospheric trends in the Iberian Peninsula during the instrumental period in the context of natural variability, pages 25–41. [F.F. Pérez and R. Boscolo (eds.)], Red Temática CLIVAR-España, 2010.
- [2] E. Sánchez, G. Míguez-Macho, and **D. Argüeso** et al. *Climate in Spain: Past, present and future. Regional climate change assessment report*, chapter 5: Regional climate projections over the Iberian Peninsula: climate change scenarios modeling, pages 69–80. [F.F. Pérez and R. Boscolo (eds.)], Red Temática CLIVAR-España, 2010.

### Peer-reviewed conference papers (8)

- [1] B.C. Bates, **D. Argüeso**, J.P. Evans, J. Green, A. Griesser, D. Jakob, A. Seed, R. Lau, E. Lehmann, A. Phatak, D. Abbs, S. Lavender, K. Nguyen, T. Rafter, M. Thatcher, F. Zheng, S. Westra, and M. Leonard. Preliminary Assessment of the Impact of Climate Change on Design Rainfall IFD Curves. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Hobart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [2] J.P. Evans and **D. Argüeso**. WRF simulations of future changes in IFD curves. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Hobart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [3] J.P. Evans, A. Pepler, A. Di Luca, F. Ji, L. Alexander, and **D. Argüeso**. Future changes in Extreme East Coast Lows. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Ho-

- bart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [4] J.P. Evans, R. Olson, L. Fita, **D. Argüeso**, and A. Di Luca. NARcliM model performance including teleconnections with climate modes. In *21th International Congress on Modelling and Simulation (MODSIM2015)*, Gold Coast (Australia). 29 November- 4 December 2015. URL <http://www.mssanz.org.au/modsim2015/>.
- [5] F. Ji, J.P. Evans, Y. Scorgie, N. Jiang, **D. Argüeso**, A. Di Luca, and R. Olson. Change in Temperature Inversion for Southeast Australia. In *21th International Congress on Modelling and Simulation (MODSIM2015)*, Gold Coast (Australia). 29 November- 4 December 2015. URL <http://www.mssanz.org.au/modsim2015/>.
- [6] **D. Argüeso**, J.P. Evans, L.Fita, and K.J. Bormann. Simulated impact of urban expansion on future temperature heatwaves in Sydney. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.
- [7] J.P. Evans, L. Fita, **D. Argüeso**, and Y. Liu. Initial NARcliM Evaluation. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.
- [8] Fei Ji, M. Riley, H. Clarke, J.P. Evans, **D. Argüeso**, and L. Fita. High-resolution rainfall Projections for the Great Sydney Region. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.

#### Conference contributions (as presenting author only - 21)

- [1] **D. Argüeso**, A. Di Luca, and J.P. Evans. Does convection-permitting resolution improve simulated precipitation in the Maritime Continent? In *International Conference on Regional Climate - CORDEX 2016*, Stockholm (Sweden). May 2016. URL <http://www.icrc-cordex2016.org>. **Oral Presentation.**
- [2] **D. Argüeso**, A. Di Luca, and J.P. Evans. Urban-enhanced precipitation in the Maritime Continent from a convection permitting model. In *Australian Meteorological and Oceanographic Society National Conference*, Melbourne (Australia). February 2016. URL <http://www.amos.org.au/ac2016>. **Oral Presentation.**
- [3] **D. Argüeso**, J.P. Evans, and A. Di Luca. Changes of temperature and humidity in areas of city sprawl under climate change conditions. In *9th International Conference on Urban Climate*, Toulouse (France). 20-24 July 2015. URL <http://www.meteo.fr/icuc9/>. **Oral Presentation.**
- [4] **D. Argüeso**, J.P. Evans, and A. Di Luca. Heat stress changes due to urban expansion and climate change. In *Cities in Future Earth: Third Australian Earth System Outlook*, Canberra, (Australia). December 2014. URL <https://www.science.org.au/resources/cities-future-earth-third-australian-earth-system-outlook-conference-8-9-december-2014-shi>.
- [5] **D. Argüeso**, J.P. Evans, and A. Di Luca. Impact of model spatial resolution on precipitation extremes. In *7th International Scientific Conference on the Global Water and Energy Cycle*, The Hague (The Netherlands). July 2014. URL <http://gewex.org/2014conf/home.html>.
- [6] **D. Argüeso**, J.P. Evans, L. Fita, A.J. Pitman, and A. Di Luca. Amplified climate change signal due to urban expansion at local scales from a regional climate model. In *3rd International Lund Regional-Scale Climate Modelling Workshop*, Lund (Sweden). June 2014. URL <http://www.baltex-research.eu/RCM2014/>. **Oral Presentation.**

- [7] **D. Argüeso**, J.P. Evans, and A. Di Luca. Simulated heat wave trends and changes in Australia over the last 60 years. In *AMOS National Conference 2014*, Hobart (Australia). February 2014. URL <http://www.amos2014.org.au/>.
- [8] **D. Argüeso**, J.P. Evans, L.Fita, and K.J. Bormann. Simulated impact of urban expansion on future temperature heatwaves in Sydney. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>. **Oral Presentation**.
- [9] **D. Argüeso**, M.G. Donat, J.P. Evans, L.V. Alexander, and L. Fita. Trends in extreme indices in 60-year simulations over Australia. In *International Conference on Regional Climate - CORDEX 2013*, Brussels (Belgium). November 2013. URL <http://cordex2013.wcrp-climate.org/>.
- [10] **D. Argüeso**, J.P. Evans, and L.Fita. Regional Climate Modeling over Australia: Designing simulations towards impact assessment studies. In *International Workshop on Dynamical Downscaling*, Tsukuba (Japan). October 2013. **Invited Talk**.
- [11] **D. Argüeso**, J.P. Evans, and L.Fita. Precipitation bias correction of very high resolution regional models. In *Australian Meteorological and Oceanographic Society National Conference*, Melbourne (Australia). February 2013. URL <http://wired.ivvy.com/event/WXOCCX/>. **Oral Presentation**.
- [12] **D. Argüeso**, L. Fita, and J.P. Evans. Temperature response to future land-use changes in the sydney area. In *CoECS First Annual Workshop*, Hobart (Australia). September 2012. URL <http://www.climate-science.org.au/content/150-coecss-first-annual-workshop>.
- [13] **D. Argüeso**, J.M. Hidalgo-Muñoz, M.J. Esteban-Parra, S.R. Gámiz-Fortis, and Y. Castro-Díez. CLIVAR-SPAIN CONTRIBUTIONS: Evaluation of WRF ability to reproduce mean and extreme precipitation over Spain. In *WCRP OSC Climate Research in Service to Society*, Denver, CO (US). October 2011. URL <http://www.wcrp-climate.org/conference2011/index.html>.
- [14] **D. Argüeso**. Multi-step regionalization technique and regional model validation for climate studies. In *WRF Lecture Series at the Bjerknes Centre*, Bergen (Norway). September 2010. **Invited Talk**.
- [15] **D. Argüeso**, J.M. Hidalgo-Muñoz, D. Calandria-Hernández, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Multi-step regionalization technique and regional model validation for climate studies. In *10<sup>th</sup> EMS Annual Meeting. 8<sup>th</sup> European Conference on Applied Climatology*, Zurich (Switzerland). September 2010. URL [http://meetingorganizer.copernicus.org/EMS2010/poster\\_programme/3654](http://meetingorganizer.copernicus.org/EMS2010/poster_programme/3654).
- [16] **D. Argüeso**, J.M. Hidalgo-Muñoz, D. Calandria-Hernández, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Regional climate simulations over complex topography using WRF: Andalusian present climate. In *10<sup>th</sup> EMS Annual Meeting. 8<sup>th</sup> European Conference on Applied Climatology*, Zurich (Switzerland). September 2010. URL [http://meetingorganizer.copernicus.org/EMS2010/poster\\_programme/3654](http://meetingorganizer.copernicus.org/EMS2010/poster_programme/3654).
- [17] **D. Argüeso**, J.M. Hidalgo-Muñoz, M.J. Esteban-Parra, S.R. Gámiz-Fortis, D. Calandria-Hernández, and Y. Castro-Díez. MM5 sensitivity to boundary conditions and domain configuration for climate studies over Southern Spain. In *90<sup>th</sup> AMS Annual Meeting*, Atlanta, GA (US). January 2010. URL [http://ams.confex.com/ams/90annual/techprogram/paper\\_159983.htm](http://ams.confex.com/ams/90annual/techprogram/paper_159983.htm).
- [18] **D. Argüeso**, J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. An Analysis of MM5 sensitivity to different parameterizations for high-resolution climate simulations. In *EGU General Assembly*, Vienna (Austria). April 2009. URL <http://meetingorganizer.copernicus.org/EGU2009/EGU2009-9110-1.pdf>.
- [19] **D. Argüeso**, J.M. Hidalgo-Muñoz, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Análisis de la respuesta del MM5 frente a diferentes parametrizaciones físicas para el sur de

la Península Ibérica - Analysis of the MM5 response to different physics parameterizations in the south of the Iberian Peninsula. In *CLIVAR-ES. Clima en España: Pasado, presente y futuro. Contribución a un informe de Evaluación del Cambio Climático Regional*, Madrid (Spain), February 2009. URL: <http://clivar.iim.csic.es/?q=es/node/269/>.

- [20] **D. Argüeso**, M. España-Acebal, M. Staudt, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Climate Variability and Climate Change. In *I Reunion sobre e-ciencia andaluza - I meeting on andalusian e-science*, Granada (Spain). June 2007. **Oral Presentation.**
- [21] **D. Argüeso**, M. España-Acebal, M. Staudt, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Proyecto E-CA. In *I Reunion sobre e-ciencia andaluza - I meeting on andalusian e-science*, Granada (Spain). June 2007. **Oral Presentation.**

### Conference Contributions (as co-author - 73)

- [1] J.P. Evans, **D. Argüeso**, and A. Di Luca. Convection-Permitting Regional Climate Modelling of the Maritime Continent and the Impact of Urban Areas. In *14th Annual Meeting Asia Oceania Geosciences Society 2017*, Singapore (Singapore). 6-11 August 2017. URL <http://www.asiaoceania.org/aogs2017/>. **Oral Presentation.**
- [2] **D. Argüeso**, S. Businger, and T. Dunn. Improvement of tropical cyclone forecasting through lightning assimilation in WRF. In *6th International Summit on Hurricanes and Climate Change: From Hazard to Impact*, Heraklion, Crete (Greece). 4-9 June 2017. URL <https://www.aegeanconferences.org/src/App/conferences/view/114/>.
- [3] J.P. Evans, **D. Argüeso**, and A. Di Luca. Convection-Permitting Regional Climate Modelling of the Maritime Continent and the Impact of Urban Areas. In *97th AMS Annual Meeting 2017*, Seattle, WA (US). 22-26 January 2017. URL <https://annual.ametsoc.org/2017/>. **Oral Presentation.**
- [4] C. Dutheil, C. Menkes, M. Lengaigne, N. C. Jourdain, J. Vialard, M. Bador, L. Terray, A. Di Luca, **D. Argüeso**, and B. Sultan. SPCZ and cyclone future evolutions. In *AGU Fall Meeting 2016*, San Francisco, CA (US). 12-16 December 2016.
- [5] A. Di Luca, J.P. Evans, N. C. Jourdain, and **D. Argüeso**. Using convection permitting simulations to study the intensity of extreme East Coast Lows. In *GEWEX Convection-Permitting Climate Modeling Workshop*, Stockholm (Sweden). 6-8 September 2016. URL <https://ral.ucar.edu/events/2016/gewex-convection-permitting-climate-modeling-workshop>. **Oral Presentation.**
- [6] Y. Li, N. Jourdain, A.S. Taschetto, A. Sen Gupta, **D. Argüeso**, S. Masson, and W. Cai. Resolution Dependence Of The Precipitation And Diurnal Cycle Over The Maritime Continent. In *AOGS Annual Meeting 2016*, Beijing (China). 31 Jul-5 Aug 2016. URL <http://www.asiaoceania.org/aogs2016/public.asp?page=home.htm>.
- [7] I. Macadam, **D. Argüeso**, J.P. Evans, D.L. Liu, and P.H. Whetton. Using Regional Climate Model output to force wheat simulations. In *International Conference on Regional Climate - CORDEX 2016*, Stockholm (Sweden). May 2016. URL <http://www.icrc-cordex2016.org>.
- [8] A. Di Luca, **D. Argüeso**, J.P. Evans, R. de Elía, and R. Laprise. Quantifying the overall added value of dynamical downscaling and the contribution from different spatial scales. In *International Conference on Regional Climate - CORDEX 2016*, Stockholm (Sweden). May 2016. URL <http://www.icrc-cordex2016.org>. **Oral Presentation.**
- [9] J.P. Evans, **D. Argüeso**, X. Yang, R. Olson, and A. Di Luca. Future changes in extreme precipitation, rainfall erosivity and hillslope erosion in southeast Australia. In *TCCIP Workshop on Application of Climate Change Projections*, Taipei (Taiwan). 8-10 March 2016.

- [10] C. A. Jamandre, M. Hart, **D. Argüeso**, and A.J. Pitman. Urban growth within Sydney - effects of urban densification and vertical expansion. In *Australian Meteorological and Oceanographic Society National Conference*, Melbourne (Australia). February 2016. URL <http://www.amos.org.au/ac2016>. **Oral Presentation.**
- [11] J.P. Evans and **D. Argüeso**. Future projections of short time scale precipitation extremes over Sydney. In *Australian Meteorological and Oceanographic Society National Conference*, Melbourne (Australia). February 2016. URL <http://www.amos.org.au/ac2016>. **Oral Presentation.**
- [12] S.E. Perkins-Kirkpatrick, **D. Argüeso**, and C. J. White. Relationships between climate variability, soil moisture, and Australian heatwaves. In *Australian Meteorological and Oceanographic Society National Conference*, Melbourne (Australia). February 2016. URL <http://www.amos.org.au/ac2016>. **Oral Presentation.**
- [13] J.P. Evans, R. Olson, L. Fita, **D. Argüeso**, and A. Di Luca. NARCLiM model performance including teleconnections with climate modes. In *21th International Congress on Modelling and Simulation (MODSIM2015)*, Gold Coast (Australia). 29 November- 4 December 2015. URL <http://www.mssanz.org.au/modsim2015/>.
- [14] F. Ji, J.P. Evans, Y. Scorgie, N. Jiang, **D. Argüeso**, A. Di Luca, and R. Olson. Change in Temperature Inversion for Southeast Australia. In *21th International Congress on Modelling and Simulation (MODSIM2015)*, Gold Coast (Australia). 29 November- 4 December 2015. URL <http://www.mssanz.org.au/modsim2015/>.
- [15] Perkins S.E., C.J. White, L.V. Alexander, **D. Argüeso**, G. Boschat, T. Cowan, J.P. Evans, M. Ekström, E.C.J. Oliver, A. Phatak, and A. Purich. Natural hazards in Australia: heatwaves. In *21th International Congress on Modelling and Simulation (MODSIM2015)*, Gold Coast (Australia). 29 November- 4 December 2015. URL <http://www.mssanz.org.au/modsim2015/>.
- [16] J.P. Evans, **D. Argüeso**, A. Di Luca, R. Olson, F. Ji, and L. Fita. NARCLiM: Future regional projections for south-east Australia. In *Greenhouse 2015*, Hobart (Australia). 27-30 October 2015. URL <http://greenhouse2015.com>.
- [17] J.P. Evans, A. Pepler, A. Di Luca, F. Ji, L. Alexander, and **D. Argüeso**. Future changes in Extreme East Coast Lows. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Hobart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [18] J.P. Evans and **D. Argüeso**. WRF simulations of future changes in IFD curves. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Hobart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [19] B.C Bates, **D. Argüeso**, J.P. Evans, J. Green, A. Griesser, D. Jakob, A. Seed, R. Lau, E. Lehmann, A. Phatak, D. abbs, S. Lavender, K. Nguyen, T. Rafter, M. Thatcher, F. Zheng, S. Westra, and M. Leonard. Preliminary Assessment of the Impact of Climate Change on Design Rainfall IFD Curves. In *36th Hydrology and Water Resources Symposium (HWRS 2015)*, Hobart (Australia). 7-10 August 2015. URL <https://www.engineersaustralia.org.au/events/36th-hydrology-and-water-resources-symposium-hwrs-2015>.
- [20] J.P. Evans, **D. Argüeso**, A. Di Luca, L. Fita, and R. Olson. WRF Performance over the CORDEX-AustralAsia Domain. In *AOGS Annual Meeting 2015*, Singapore (Singapore). 2-7 August 2015. URL <http://asiaoceania.org/aogs2015/>.
- [21] **D. Argüeso**, J.P. Evans, S.E. Perkins, and A. Di Luca. High-resolution projections of heat wave changes in South-East Australia. In *AMOS National Conference 2015*, Brisbane (Australia). 15-17 July 2015. URL <http://www.amos2015.org.au/> **Oral Presentation by Alejandro Di Luca on my behalf.**



- [22] Carlo Jamandre, M. Hart, A.J. Pitman, and **D. Argüeso**. Influence of urban expansion and densification on local climate. In *AMOS National Conference 2015*, Brisbane (Australia). 15-17 July 2015. URL <http://www.amos2015.org.au/>.
- [23] A. Di Luca, J.P. Evans, and **D. Argüeso**. Using QuikSCAT wind data to evaluate some properties of ECLs as derived from reanalysis products. In *AMOS National Conference 2015*, Brisbane (Australia). 15-17 July 2015. URL <http://www.amos2015.org.au/>.
- [24] Fei Ji, J.P. Evans, **D. Argüeso**, A. Di Luca, and L. Fita. Investigating changes in indicated East Coast Lows. In *AMOS National Conference 2015*, Brisbane (Australia). 15-17 July 2015. URL <http://www.amos2015.org.au/>.
- [25] R. Olson, J.P. Evans, **D. Argüeso**, and A. Di Luca. The NARClIM Project: Significance and Model Agreement on Climate Projections. In *AMOS National Conference 2015*, Brisbane (Australia). 15-17 July 2015. URL <http://www.amos2015.org.au/>.
- [26] J.P. Evans, A. Pepler, A. Di Luca, F. Ji, L. Alexander, and **D. Argüeso**. Future changes in Extreme East Coast Lows. In *26th IUGG General Assembly 2015*, Prague (Czech Republic). 22 June-2 July 2015. URL <http://www.iugg2015prague.com>.
- [27] A. Di Luca, J.P. Evans, **D. Argüeso**, R. Olson, and L. Fita. Future changes in extreme lows affecting the east coast of Australia. In *Joint Assembly AGU-GAC-MAC-CGU*, Montreal (Canada). 3-7 May 2015. URL <http://ja.agu.org/2015/>.
- [28] M. García-Valdecasas-Ojeda, S.R. Gámiz-Fortis, J.M. Hidalgo-Muñoz, **D. Argüeso**, Y. Castro-Díez, and M.J. Esteban-Parra. Regional Climate Model sensitivity to different parameterizations schemes with WRF over Spain. In *EGU General Assembly*, Vienna, (Austria). 12-17 April 2015. URL <http://www.egu2015.eu/home.html>.
- [29] M. García-Valdecasas-Ojeda, S.R. Gámiz-Fortis, J.M. Hidalgo-Muñoz, **D. Argüeso**, Y. Castro-Díez, and M.J. Esteban-Parra. Assessment of WRF Physics Options for Dynamical Downscaling over Spain. In *International Simposium CLIMA-ES*, Tortosa, (Spain). 11-13 March 2015. URL [http://www.aeclim.org/index.php?option=com\\_content&view=article&id=456%3Asimposio-internacional-clima-es-2015-en-tortosa-espana&catid=27%3Anoticias&Itemid=48&lang=es](http://www.aeclim.org/index.php?option=com_content&view=article&id=456%3Asimposio-internacional-clima-es-2015-en-tortosa-espana&catid=27%3Anoticias&Itemid=48&lang=es).
- [30] J.P. Evans, **D. Argüeso**, A. Di Luca, R. Olson, and L. Fita. Design of a regional climate model ensemble that incorporates model performance and independence. In *2014 AGU Fall Meeting*, San Francisco, CA (US). December 2014. URL <http://fallmeeting.agu.org/2014/>.
- [31] R. Olson, J.P. Evans, **D. Argüeso**, and A. Di Luca. Climate Projections from the NARClIM Project: Model Biases and Significance of Projected Changes. In *2014 AGU Fall Meeting*, San Francisco, CA (US). December 2014. URL <http://fallmeeting.agu.org/2014/>.
- [32] J.P. Evans, C. Lee, **D. Argüeso**, F. Ji, A. Di Luca, R. Olson, and M. Riley. Regional climate change projections for use in impacts and adaptation research in southeast Australia. In *Practical Responses for Climate Change Conference*, Melbourne (Australia). 25-27 November 2014. URL <https://www.engineersaustralia.org.au/news/last-call-abstracts-practical-responses-climate-change-23rd-may-2014>.
- [33] J.P. Evans, **D. Argüeso**, A. Di Luca, R. Olson, F. Ji, C. Lee, and Y. Scorgie. Future Climate Projections for Coastal NSW. In *23rd NSW Coastal Conference*, Ulladulla (Australia). 10-13 November 2014. URL <http://www.coastalconference.com>.
- [34] J.P. Evans, **D. Argüeso**, A. Di Luca, R. Olson, and L. Fita. Including model performance and independence in ensemble design. In *1st WCRP CORDEX Science and Technology Workshop in Southeast Asia*, Bogor (Indonesia). November 2014.

- [35] J.P. Evans and **D. Argüeso**. Convection permitting regional climate modelling for short time scale precipitation extremes. In *OzEWEX Workshop*, Canberra, (Australia). October 2014. URL <http://www.wenfo.org/ozewex/workshop/>.
- [36] R. Olson, J.P. Evans, A. Di Luca, and **D. Argüeso**. The NARcliM Project: Model Evaluation and Climate Projections for Temperature and Precipitation for South-East Australia. In *OzEWEX Workshop*, Canberra, (Australia). October 2014. URL <http://www.wenfo.org/ozewex/workshop/>.
- [37] A. Di Luca, Laprise R, J.P. Evans, **D. Argüeso**, and R. de Elía. Some factors influencing the added value of Regional Climate Models. In *Milankovitch Anniversary UNESCO Symposium 2014*, Belgrade (Serbia). September 2014. URL <http://www.jcerni.org/en/activities/conferences/wmtccc.html>.
- [38] A. Di Luca, **D. Argüeso**, and J.P. Evans. Recent changes in extreme Australian East Coast Lows in reanalysis datasets and simulations. In *7th International Scientific Conference on the Global Water and Energy Cycle*, The Hague (The Netherlands). July 2014. URL <http://gewex.org/2014conf/home.html>.
- [39] A. Di Luca, J.P. Evans, and **D. Argüeso**. Identifying cyclones in high-resolution RCM simulations and reanalysis. In *3rd International Lund Regional-Scale Climate Modelling Workshop*, Lund (Sweden). June 2014. URL <http://www.baltex-research.eu/RCM2014/>.
- [40] L. Fita, S. Liles, J.P. Evans, and **D. Argüeso**. Exploring new evaluation methods for RCM exercises. Using Australian soundings for the NARcliM experiment. In *3rd International Lund Regional-Scale Climate Modelling Workshop*, Lund (Sweden). June 2014. URL <http://www.baltex-research.eu/RCM2014/>.
- [41] J.P. Evans, **D. Argüeso**, A. Di Luca, and L. Fita. Including model performance and independence in ensemble design. In *3rd International Lund Regional-Scale Climate Modelling Workshop*, Lund (Sweden). June 2014. URL <http://www.baltex-research.eu/RCM2014/>. **Oral Presentation**.
- [42] L. Fita, **D. Argüeso**, J.P. Evans, and A.D. King. NARcliM regional downscaling project in Australia: Long-term climatological analysis of the control period. In *EGU General Assembly*, Vienna (Austria). 27 April - 2 May 2014. URL <http://www.egu2014.eu/home.html> **Oral Presentation**.
- [43] J.P. Evans, **D. Argüeso**, and A. Di Luca. Large Scale NARcliM Evaluation. In *AMOS National Conference 2014*, Hobart (Australia). February 2014. URL <http://www.amos2014.org.au/>.
- [44] Fei Ji, J.P. Evans, **D. Argüeso**, and L. Fita. Investigating Changes In Frequency, Intensity And Location Of Indicated East Coast Lows. In *AMOS National Conference 2014*, Hobart (Australia). February 2014. URL <http://www.amos2014.org.au/>.
- [45] J.P. Evans A. Di Luca and **D. Argüeso**. Intensity and distribution of East Coast Lows as derived from reanalysis and simulated datasets. In *AMOS National Conference 2014*, Hobart (Australia). February 2014. URL <http://www.amos2014.org.au/>.
- [46] A. Di Luca, J.P. Evans, and **D. Argüeso**. A framework to compare Australian East Coast Lows events derived from varying resolution datasets. In *CoECSS Annual Workshop*, Lorne (Australia), November 2013.
- [47] J.P. Evans, L. Fita, **D. Argüeso**, and Y. Liu. Initial NARcliM Evaluation. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.
- [48] Fei Ji, J.P. Evans, L. Fita, and **D. Argüeso**. Using large-scale Diagnostic Quantities to Investigate Change in Frequency of East Coast Low Events. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.

- [49] Fei Ji, M. Riley, H. Clarke, J.P. Evans, **D. Argüeso**, and L. Fita. High-resolution rainfall Projections for the Great Sydney Region. In *20th International Congress on Modelling and Simulation (MODSIM2013)*, Adelaide (Australia). December 2013. URL <http://www.mssanz.org.au/modsim2013/>.
- [50] J.P. Evans, **D. Argüeso**, and L. Fita. A Regional climate projection ensemble over Australia. In *International Conference on Regional Climate - CORDEX 2013*, Brussels (Belgium). November 2013. URL <http://www.ukm.edu.my/seaclid-cordex/index.html>.
- [51] J.P. Evans, **D. Argüeso**, L. Fita, Y. Liu, P. Smith, and C. Lee. NSW / ACT Regional Climate Modelling project (NARClIM). In *AMOS National Conference 2013*, Melbourne (Australia). February 2013. URL <http://wired.ivvy.com/event/WXOCCX/>.
- [52] L. Fita, S. Liles, **D. Argüeso**, and J.P. Evans. Exploring new observational data-sets to validate regional climate simulations. An example with radio-soundings. In *AMOS National Conference 2013*, Melbourne (Australia). February 2013. URL <http://wired.ivvy.com/event/WXOCCX/>.
- [53] J.P. Evans, **D. Argüeso**, and L. Fita. Regional Climate Modeling over Australia. In *2012 AGU Fall Meeting*, San Francisco, CA (US). December 2012. URL <http://fallmeeting.agu.org/2012/>.
- [54] L. Fita, **D. Argüeso**, Y. Liu, and J.P. Evans. NARClIM: Regional Climate Modeling over Australia. In *CoECSS First Annual Workshop*, Hobart (Australia). September 2012. URL <http://www.climate-science.org.au/content/150-coecss-first-annual-workshop>.
- [55] M.J. Esteban-Parra, S.R. Gámiz-Fortis, J.M. Hidalgo-Muñoz, **D. Argüeso**, M. Hernández-Martínez, and Y. Castro-Díez. CLIVAR-SPAIN CONTRIBUTIONS: Statistical downscaling for winter Miño river flow and its potential use to obtain regional climate change projections. In *WCRP OSC Climate Research in Service to Society*, Denver, CO (US). October 2011. URL <http://www.wcrp-climate.org/conference2011/index.html>.
- [56] J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. CLIVAR-SPAIN CONTRIBUTIONS: An analysis of extreme precipitation events over the southern Iberian Peninsula. Trends and atmospheric mechanisms associated. In *WCRP OSC Climate Research in Service to Society*, Denver, CO (US). October 2011. URL <http://www.wcrp-climate.org/conference2011/index.html>.
- [57] S.R. Gámiz-Fortis, J.M. Hidalgo-Muñoz, **D. Argüeso**, M.J. Esteban-Parra, and Y. Castro-Díez. CLIVAR-SPAIN CONTRIBUTIONS: Streamflow variability and predictability in the Ebro river basin. In *WCRP OSC Climate Research in Service to Society*, Denver, CO (US). October 2011. URL <http://www.wcrp-climate.org/conference2011/index.html>.
- [58] J.M. Hidalgo-Muñoz, **D. Argüeso**, D. Calandria-Hernández, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Synoptic patterns associated with heavy rainfall events in the South of the Iberian Peninsula. In *10<sup>th</sup> EMS Annual Meeting. 8<sup>th</sup> European Conference on Applied Climatology*, Zurich (Switzerland). September 2010. URL [http://meetingorganizer.copernicus.org/EMS2010/poster\\_programme/3655](http://meetingorganizer.copernicus.org/EMS2010/poster_programme/3655).
- [59] M.J. Esteban-Parra, S.R. Gámiz-Fortis, **D. Argüeso**, J.M. Hidalgo-Muñoz, D. Calandria-Hernández, and Y. Castro-Díez. Atmospheric and oceanic influences on the winter and spring Miño river flow. In *10<sup>th</sup> EMS Annual Meeting. 8<sup>th</sup> European Conference on Applied Climatology*, Zurich (Switzerland). September 2010. URL [http://meetingorganizer.copernicus.org/EMS2010/poster\\_programme/3664](http://meetingorganizer.copernicus.org/EMS2010/poster_programme/3664).
- [60] D. Calandria-Hernández, J.M. Hidalgo-Muñoz, **D. Argüeso**, M.J. Esteban-Parra, S.R. Gámiz-Fortis, and Y. Castro-Díez. Gaussian Mixture Models for forecasting and filling of climatological time series. In *10<sup>th</sup> EMS Annual Meeting. 8<sup>th</sup> European Conference on Applied Climatology*, Zurich (Switzerland). September 2010. URL [http://meetingorganizer.copernicus.org/EMS2010/poster\\_programme/3655](http://meetingorganizer.copernicus.org/EMS2010/poster_programme/3655).

- [61] A.S. Kowalski and **D. Argüeso**. Scalar determinants of heat and mass transport in compressible fluids. In *29<sup>th</sup> Conference on Agricultural and Forest Meteorology*, Keystone, CO (US). August 2010. URL [http://ams.confex.com/ams/19Ag19BLT9Urban/techprogram/programexpanded\\_636.htm](http://ams.confex.com/ams/19Ag19BLT9Urban/techprogram/programexpanded_636.htm).
- [62] J.M. Hidalgo-Muñoz, **D. Argüeso**, M.J. Esteban-Parra, S.R. Gámiz-Fortis, D. Calandria-Hernández, and Y. Castro-Díez. Extreme value analysis of precipitation series in the south of Iberian Peninsula. In *90<sup>th</sup> AMS Annual Meeting*, Atlanta, GA (US). January 2010. URL [http://ams.confex.com/ams/90annual/techprogram/paper\\_159994.htm](http://ams.confex.com/ams/90annual/techprogram/paper_159994.htm).
- [63] S.R. Gámiz-Fortis, M.J. Esteban-Parra, **D. Argüeso**, J.M. Hidalgo-Muñoz, D. Calandria-Hernández, and Y. Castro-Díez. Modelling the spring Douro river flow using SST. In *90<sup>th</sup> AMS Annual Meeting*, Atlanta, GA (US). January 2010. URL [http://ams.confex.com/ams/90annual/techprogram/paper\\_159852.htm](http://ams.confex.com/ams/90annual/techprogram/paper_159852.htm).
- [64] M.J. Esteban-Parra, S.R. Gámiz-Fortis, **D. Argüeso**, J.M. Hidalgo-Muñoz, D. Calandria-Hernández, and Y. Castro-Díez. Evaluation of long-term trends in spring onset in the Northern Europe using Singular Spectral Analysis. In *90<sup>th</sup> AMS Annual Meeting*, Atlanta, GA (US). January 2010. URL [http://ams.confex.com/ams/90annual/techprogram/paper\\_159863.htm](http://ams.confex.com/ams/90annual/techprogram/paper_159863.htm).
- [65] J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Variability of the extreme rainfall events in the South of the Iberian Peninsula. In *EGU General Assembly*, Vienna (Austria). April 2009. URL <http://meetingorganizer.copernicus.org/EGU2009/EGU2009-7771-2.pdf>.
- [66] J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Angular Distance Weighting technique for developing a daily high-resolution gridded precipitation datasets for the South of the Iberian Peninsula. In *EGU General Assembly*, Vienna (Austria). April 2009. URL <http://meetingorganizer.copernicus.org/EGU2009/EGU2009-10610.pdf>.
- [67] S.R. Gámiz-Fortis, M.J. Esteban-Parra, **D. Argüeso**, J.M. Hidalgo-Muñoz, and Y. Castro-Díez. Quantifying the predictability of the European temperatures based on the Atlantic SST. In *EGU General Assembly*, Vienna (Austria). April 2009. URL <http://meetingorganizer.copernicus.org/EGU2009/EGU2009-7225-4.pdf>.
- [68] J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Variabilidad de los extremos pluviométricos en el sur de la Península Ibérica - Variability of precipitation extremes in the south of the Iberian Peninsula. In *CLIVAR-ES. Clima en España: Pasado, presente y futuro. Contribución a un informe de Evaluación del Cambio Climático Regional*, Madrid (Spain), February 2009. URL: <http://clivar.iim.csic.es/?q=es/node/269/>.
- [69] D. Calandria-Hernández, J.M. Hidalgo-Muñoz, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Técnicas lineales y no lineales aplicadas al relleno de huecos: Un estudio comparativo en series temporales de caudales. In *XXXII Reunión Bienal Real Sociedad Española Física y 18<sup>o</sup> Encuentro Ibérico para la enseñanza de la Física. Comunicaciones científicas*, Ciudad Real (Spain), September 2009. 978-84-692-4956-7.
- [70] J.M. Hidalgo-Muñoz, D. Calandria-Hernández, **D. Argüeso**, S.R. Gámiz-Fortis, M.J. Esteban-Parra, and Y. Castro-Díez. Variabilidad espacio-temporal de los caudales en la cuenca hidrográfica del Guadalquivir. In *XXXII Reunión Bienal Real Sociedad Española Física y 18<sup>o</sup> Encuentro Ibérico para la enseñanza de la Física. Comunicaciones científicas*, Ciudad Real (Spain), September 2009. 978-84-692-4956-7.
- [71] S.R. Gámiz-Fortis, M.J. Esteban-Parra, **D. Argüeso**, J.M. Hidalgo-Muñoz, and Y. Castro-Díez. Cuantificación de la capacidad predictiva de la SST del Atlántico en las temperaturas de Europa - Quantification of the Atlantic SST predictive capability for European temperatures. In *CLIVAR-ES. Clima en España: Pasado, presente y futuro. Contribución a un informe de Evaluación del Cambio*

*Climático Regional*, Madrid (Spain), February 2009. URL: <http://clivar.iim.csic.es/?q=es/node/269/>.

- [72] M.C. Álvarez-Castro, M.J. Esteban-Parra, S.R. Gámiz-Fortis, **D. Argüeso**, and Y. Castro-Díez. Comparación y validación de los Modelos de Circulación General en Andalucía y su potencial uso para el downscaling de la precipitación - Comparison and validation of General Circulation Models over Andalusia and their potential use for precipitation downscaling. In *6<sup>a</sup> Asamblea Hispano-Portuguesa de Geodesia y Geofísica*, Tomar (Portugal), February 2008. URL: <http://www.ipt.pt/6alegg/es/index.htm>.
- [73] M. España-Acebal, J.C. Torres-Cantero, **D. Argüeso-Barriga**, and Y. Castro-Díez. Gestión Medioambiental usando sistemas GIS 3D - Environmental Management using 3D GIS systems. In *I Simposio en desarrollo de software*, Granada (Spain), March 2007. ISBN: 978-84-96856-17-2. URL: <http://lsi.ugr.es/desarrollosoftware/simposio>.

#### Technical reports (4)

- [1] **D. Argüeso**, A. Di Luca, J.P. Evans, M. Parry, M. Gross, L. Alexander, D. Green, and S.E. Perkins. Heatwaves affecting NSW and the ACT - recent trends, future projections and associated impacts on human health. Technical report, NARCLiM Technical Note 5, June 2015. [Download](#).
- [2] J.P. Evans and **D. Argüeso**. Guidance on the use of bias corrected data. Technical report, NARCLiM Technical Note 3, April 2014. [Download](#).
- [3] J.P. Evans, **D. Argüeso**, R. Olson, and A. Di Luca. NARCLiM Extreme Precipitation Indices Report. Technical report, NARCLiM Technical Note 6, July 2015. [Download](#).
- [4] R. Olson, J.P. Evans, **D. Argüeso**, and A. Di Luca. NARCLiM Climatological Atlas. Technical report, NARCLiM Technical Note 4, December 2014. [Download](#).

#### Teaching

2015/2016: Co-supervision of a scholarship student through a 6-week summer research program. Project title: "How extreme will Australia's climate get by the late 21<sup>st</sup> century". Faculty of Science. University of New South Wales, Australia.

2015: Climate Systems Science (CLIM3001) - Regional climate modelling, statistical and dynamical downscaling. Global and regional climate projections (2 hours). 3<sup>rd</sup> Year Undergraduate course for Science students. Faculty of Science. University of New South Wales, Australia.

2014/2015: Co-supervision of a scholarship student through a 6-week summer research program. Project title: "Quantifying rainfall falling from East Coast Cyclones". Faculty of Science. University of New South Wales, Australia.

2013: Dynamical downscaling of temperature and precipitation over the Iberian Peninsula. Course (4 hours) for the students of the Master in Geophysics and Meteorology (GEOMET). University of Granada, Spain

2010/2011: Physics. 1<sup>st</sup> Year of Environmental Sciences Degree. Laboratory lessons (40 hours). Applied Physics Department. University of Granada, Spain.

2010: Matlab 2010a: Introduction to Matlab. Course (4 hours) for the students of the Master in Geophysics and Meteorology (GEOMET). University of Granada, Spain

2009/2010: Fundamentals of Physics. 1<sup>st</sup> Year of Environmental Sciences Degree. Laboratory lessons (60 hours). Applied Physics Department. University of Granada, Spain.

2008/2009: Fundamentals of Physics. 1<sup>st</sup> Year of Environmental Sciences Degree. Laboratory lessons (60 hours). Applied Physics Department. University of Granada, Spain.

## Technical Skills

**Operative Systems:** Unix/Linux, Mac OSX 10.10, Windows 8

**Programming Languages:** Python, Fortran90, Matlab 2014, shell scripting, NCL, GMT, Latex

**Climate tools:** Climate Data Operators (CDO), netCDF Operator (NCO)

**Regional Climate Models:** MM5 and WRF (In serial and high-performance parallel supercomputers)

**Graphic skills:** Adobe Photoshop CC, Adobe Illustrator CC

**Other skills:** Version control software (GIT), Large datasets management (~PBs)

## Languages

**Mother Tongue:** Spanish

**Fluent:**

- English - Certificate in Advanced English (CAE) from University of Cambridge (UK)
- Italian
- Portuguese

**Basic:** French

## Participation in research projects

2017–2019 *Simulating Realistic High-resolution Precipitation in the Maritime Continent (REHIPRE)*

Project ID: H2020-MSCA-IF-2016-743547

Financed by: European Union - European Commission - Horizon 2020 Program

Lead Researcher: **Dr. Daniel Argüeso**

2016–2017 *Investigation of the Long-Range Lightning Datastream for Improved Storm Forecasting*

Financed by: Jonathan Merage Foundation

Lead Researcher: Prof. Steven Businger

2015–2017 *Creation of Gridded Energy Datasets for Solar and Wind Power on Oahu*

Financed by: Hawaii Natural Energy Institute (HNEI)

Lead Researcher: Prof. Steven Businger

2015–2015 *Heatwaves affecting NSW and ACT*

Financed by: NSW Office of Environment and Heritage

Lead Researchers: A/Prof. Jason P. Evans, Dr. Donna Green and A/Prof. Lisa V. Alexander

2015–2015 *Rainfall extremes affecting NSW and ACT*

Financed by: NSW Office of Environment and Heritage

Lead Researcher: A/Prof. Jason P. Evans

2013–2017 *Impactos del Cambio Climático en la cuenca del Guadalquivir (LICUA) - Climate Change impacts in the Guadalquivir catchment (LICUA)*

Financed by: Regional Government of Andalusia (*Junta de Andalucía*)

Lead Researcher: Prof. María Jesús Esteban-Parra

2011–2014 *New South Wales and ACT Regional Climate Modelling (NARClIM)*

Financed by: Consortium of project partners (NSW Office of Environment and Heritage, UNSW, ACT Environment and Sustainable Development Directorate, Sydney Water, Sydney Catchment Authority,

Hunter Water, NSW Department of Transport, NSW Department of Primary Industry, NSW Office of Water)

Lead Researcher: A/Prof. Jason P. Evans

Website: <http://www.ccrcc.unsw.edu.au/NARcliM/>

2011–2013 *Proyecciones de Cambio Climático para el caudal de los ríos ibéricos (CARIBE) – Climate Change projections of Iberian river flows (CARIBE)*

Financed by: Spanish Ministry of Education and Science (*Ministerio de Educación y Ciencia*)

Lead Researcher: Prof. María Jesús Esteban-Parra

2007–2010 *Proyecciones de Cambio Climático de alta resolución en Andalucía mediante un modelo de mesoscala (PROCLIAN) – High-resolution projections of Climate Change scenarios over Andalusia using a mesoscale model (PROCLIAN)*

Financed by: Regional Government of Andalusia (*Junta de Andalucía*)

Lead Researcher: Prof. Yolanda Castro-Díez

2007–2010 *Impactos de la variabilidad climática en la predicción annual y estacional del caudal de los ríos ibéricos (PREDICA) – Climate variability impact on annual and seasonal prediction of Iberian rivers flow (PREDICA)*

Financed by: Spanish Ministry of Education and Science (*Ministerio de Educación y Ciencia*)

Lead Researcher: Prof. Yolanda Castro-Díez

## **Collaboration and visits external centers**

11/2011–10/2013 **University of Granada, Spain - Collaboration**

Topic: Regional climate projections of Iberian river flows.

09/2010 **Bjerknes Centre for Climate Research, Norway - Visit**

Topic: Challenges in the use of WRF for climate change research

08/2010–11/2010 **National Center for Atmospheric Research (NCAR), US - Visit**

Topic: Parameterization tests over Iberian Peninsula for climate studies and evaluation of boundary conditions

02/2008 **Universidad de Murcia, Spain - Visit**

Topic: MM5 modifications for climate studies

## **Other Experience**

### **Peer Reviewing**

Nature Climate Change, Journal of Climate, Climate Dynamics, Geophysical Research Letters, Geoscientific Model Development, Environmental Research Letters, Climate Research, Theoretical and Applied Climatology, Advances in Science and Research, Hydrology and Earth System Sciences, Journal of Hydrometeorology, Urban Climate, Climatic Change, Asia-Pacific Journal of Atmospheric Sciences, Chinese Journal of Oceanology and Limnology, International Journal of Climatology, Journal of the Southern Hemisphere Earth Systems Science, Journal of Advances in Modeling Earth Systems

Expert reviewer of project proposals for the Spanish National Research Program (2013, 2014)

### **Organising Committee**

Member of the organising committee of the Maritime Continent Workshop held in Melbourne 5-6th November 2015 that brought together 35 scientists from 7 different institutions in Australia and New Zealand.

### **Grant Writing**

Application to the Australian national scheme (Australian Research Council - ARC) for early career researchers (Discovery Early Career Researcher Award - DECRA) for 3-year funding with the project entitled "The future climate extremes of Australian cities" ranked among the top 10% of unsuccessful applications.

### **Travel Grants**

CORDEX and WCRP: Early Career Researcher Travel Support (approx. \$500). Attendance to CORDEX conference 2016, Stockholm (Sweden)

Australian Academy of Sciences (\$300). Accommodation during Cities in Future Earth conference 2014, Canberra (Australia)

UCAR and WCRP: Early Career Research Travel Support (\$900). Attendance to GEWEX conference 2014, The Hague (The Netherlands)

CORDEX: Early Career Researcher Travel Grant (approx. \$3000). Attendance to CORDEX conference 2013, Brussels (Belgium)

CLIVAR-Spain Travel Grant (approx. \$700) for WCRP 2011, Denver, CO (US).

Regional Government of Andalusia Travel Grant (approx. \$5000), stay at NCAR 2009, Boulder, CO (US).



### **Attendance to Courses**

WRF, WRF-Var and WRF-Chem tutorials. National Center for Atmospheric Research (NCAR). July 14<sup>th</sup>-24<sup>th</sup> 2008. Boulder (CO), US.

11th EGEE/EELA/EUMedGrid Tutorial. Computational Andalusian Center for Science (CICA). September 10<sup>th</sup>-12<sup>nd</sup> 2007. Seville, Spain.

### **Outreach and Media**

My research has captured the interest of general public media. My recent work on urban expansion in Sydney had significant coverage on radio and newspapers across Australia and New Zealand (i.e. ABC radio, The Sydney Morning Herald), including live interviews. Previously, several Spanish nationwide media reported on the results of my PhD Thesis just after its publication, including the national broadcasting channel TVE.

Contribution to a video explaining potential impacts of climate change in New South Wales (NSW, Australia) to the general public in collaboration with the NSW Office of Environment and Heritage ([link to video](#))

Participation in a video created by University of New South Wales and the ARC Centre of Excellence for Climate Science to promote climate science and science in general among high school and undergraduate students, where different scientists tell their views on a science career and try to bring their experience closer to students.

October 3, 2017