

CURRICULUM VITAE

Ana Cristina Caldeira da Silva Gouveia Carvalho

PUBLICATIONS

Journals

- FRANCISCO FERREIRA; PEDRO GOMES; HUGO TENETE; ANA C CARVALHO; PAULO PEREIRA, JOANA MONJARDINO (2015). Air quality improvements following implementation of Lisbon's Low Emission Zone. *Atmospheric Environment*, Volume 122, December 2015, Pages 373-381. <http://dx.doi.org/10.1016/j.atmosenv.2015.09.064>
- N. BARROS, T. FONTES, M.P. SILVA, M.C. MANSO, A.C. CARVALHO (2015). Analysis of the effectiveness of the NEC Directive on the tropospheric ozone levels in Portugal. *Atmospheric Environment*. Available on line at DOI: <http://dx.doi.org/10.1016/j.atmosenv.2015.01.056>.
- J. A. FERREIRA, A. C. CARVALHO, L. CARVALHEIRO, A. ROCHA AND J. M. CASTANHEIRA (2014). On the influence of physical parameterisations and domains configuration in the simulation of an extreme precipitation event. *Dynamics of Atmospheres and Oceans*. Volume 68, December 2014, Pages 35-55. <http://dx.doi.org/10.1016/j.dynatmoce.2014.08.001>.
- TÂNIA FONTES; MÁRCIA SILVA; LUÍS SILVA; NELSON BARROS; ANA CRISTINA CARVALHO (2014). Can artificial neural networks be used to predict the origin of ozone episodes. *Science of The Total Environment*, vol. 488-489, pp. 197-207, 2014, <http://dx.doi.org/10.1016/j.scitotenv.2014.04.077>.
- TEIXEIRA, J. C., CARVALHO, A. C., CARVALHO, M. J., LUNA, T., AND ROCHA, A. (2014): Sensitivity of the WRF model to the lower boundary in an extreme precipitation event - Madeira island case study, *Nat. Hazards Earth Syst. Sci.*, 14, 2009-2025, doi: <http://dx.doi.org/10.5194/nhess-14-2009-2014>, 2014.

- PEREIRA, S. C., CARVALHO, A. C., FERREIRA, J., NUNES, J. P., KEIZER, J. J., AND ROCHA, A. (2013) Simulation of a persistent medium-term precipitation event over the western Iberian Peninsula, *Hydrology and Earth System Sciences*, 17, 3741-3758, doi: <http://dx.doi.org/10.5194/hess-17-3741-2013>.
- CARVALHO A. C., REIS M., SILVA L. AND MADRUGA M. J. (2013). A decade of ⁷Be and ²¹⁰Pb activity in surface aerosols measured over the Western Iberian Peninsula. *Atmospheric Environment*, 67 (2013), 193-202. <http://dx.doi.org/10.1016/j.atmosenv.2012.10.060>.
- FERREIRA F., GOMES P., CARVALHO A. C, TENTE H., MONJARDINO J., BRÁS H., PEREIRA P. (2012). Evaluation of the Implementation of a Low Emission Zone in Lisbon. *Journal of Environmental Protection*, Vol. 3 No. 29, 2012, pp. 1188-1205. doi: 10.4236/jep.2012.329137.
- BENALI A., CARVALHO A.C., NUNES J.P., CARVALHAIS N., SANTOS A. (2012) Estimating air surface temperature in Portugal using MODIS LST data. *Remote Sensing of the Environment*. 124, 108-121.
- A.C. CARVALHO, A. CARVALHO, H. MARTINS, C. MARQUES, A. ROCHA, C. BORREGO, D.X. VIEGAS, A.I. MIRANDA (2011). Fire Weather Risk Assessment Under Climate Change Using A Dynamical Downscaling Approach. *Journal of Environmental Modelling and Software* DOI: 10.1016/j.envsoft.2011.03.012.
- LUNA, T., ROCHA, A., CARVALHO, A. C., FERREIRA, J. A., and SOUSA, J.(2011) Modelling the extreme precipitation event over Madeira Island on 20 February 2010, *Nat. Hazards Earth Syst. Sci.*, 11, 2437-2452, doi:10.5194/nhess-11-2437-2011
- C. BORREGO, A. MONTEIRO, J. FERREIRA, A. I. MIRANDA, A. M. COSTA, A.C. CARVALHO AND M. LOPES (2008). Procedures for estimation of modeling uncertainty in air quality assessment. *Environment International*. doi:10.1016/j.envint.2007.12.005
- CARVALHO, A.C.; CARVALHO, A.; GELPI, I.; BARREIRO, M.; BORREGO, C.; MIRANDA, A.I.; PÉREZ-MUÑUZURI, V. (2006). Influence of topography and land use on pollutants dispersion in the Atlantic Coast of Iberian Peninsula. *Atmospheric Environment*, Volume 40, Issue 21, July 2006, pp. 3969-3982.

International Symposia

- J. C. TEIXEIRA, A. C. CARVALHO AND A. ROCHA (2015). WRF-Chem Sensitivity in an Saharan Dust Event. 95th American Meteorological Society Annual Meeting. January 04 - 08, 2015, Phoenix, AZ, USA. <https://ams.confex.com/ams/95Annual/webprogram/Paper259777.html>
- JOÃO TEIXEIRA, ANA CRISTINA CARVALHO, MARIA JOÃO CARVALHO, ALFREDO ROCHA (2014) Identifying coupling Modes of Particulate Matter and Meteorological Fields through Singular Vector Decomposition. 14th EMS Annual Meeting & 10th European Conference on Applied Climatology (ECAC). 6 - 10 October 2014. Prague, Czech Republic. (http://www.ems2014.eu/ems2014_programme_book.pdf).
- JOÃO TEIXEIRA, ANA CRISTINA CARVALHO AND ALFREDO ROCHA (2014). WRF-Chem Sensitivity Vertical Resolution in a Saharan Dust Event. EcoHCC'2014. International Conference on Eco-hydrology, Soil and Climate Change. 10-12 September, 2014, Instituto Politécnico de Tomar. Tomar. Portugal (<http://www.ecohcc.ipt.pt/?script=programme>).
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- J. TEIXEIRA, A. C. CARVALHO AND A. ROCHA (2014). WRF-Chem skill in simulating a Saharan dust Event over Portugal. 8^a Assembleia Luso Espanhola de Geodesia e Geofísica. 29-31 Janeiro de 2014 (<http://www.8alegg.cge.uevora.pt/?lang=en>).
- JOÃO TEIXEIRA, ANA CRISTINA CARVALHO, NELSON BARROS, ALFREDO ROCHA, MÁRIO REIS (2013). Cross cutting data analysis to the contribution of stratospheric ozone in surface measured concentrations. In Proceedings of: 16th IUAPPA World Clean Air Congress, 29 September- 4 October, Cape Town, South Africa (<http://www.iuappa2013.com>).

- TÂNIA FONTES, LUÍS SILVA, MÁRCIA SILVA, NELSON BARROS, ANA CRISTINA CARVALHO (2013) Predicting the origin of ozone episodes using artificial neural networks. In proceeding of: 16th IUAPPA World Clean Air Congress, 29 September- 4 October, Cape Town, South Africa (<http://www.iuappa2013.com>).
- A. C. PARRACHO, M. SILVA, T. FONTES, A. C. CARVALHO, N. BARROS and J. M. CASTANHEIRA (2013). The annual evolution of the daily cycle of surface ozone concentration in long time series of the Portuguese air quality network. 13th EMS Annual Meeting & 11th European Conference on Applications of Meteorology (ECAM), 09 - 13 September 2013, Reading, United Kingdom. (http://www.ems2013.net/ems2013_programme_book.pdf)
- JOANA JUSTINO, ANA CRISTINA CARVALHO, ALEXANDRA B. RIBEIRO & CORINA CARRANCA (2013). Emissões gasosas no cultivo do arroz por alagamento e sua importância na qualidade do ar. Livro de resumos do Encontro Anual da SPCS 2013, Oeiras, 26 a 28 de Junho, 2013.
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- MONJARDINO, J. CARVALHO A.C., MENDES L. AND FERREIRA F. (2012). The importance of forest fires and dust on aerosol over Portugal's background. European Aerosol Conference. Granada, Spain, 2-7 September 2012
- SOUSA, JOÃO; CARVALHO, ANA CRISTINA, PAULO MELO GONÇALVES, ALFREDO ROCHA, CARLOS MARQUES, JOANA MONJARDINO and FRANCISCO FERREIRA (2011). Principal Component Analysis of PM10 and PM2.5 concentrations in Iberian Peninsula. 6th INTERNATIONAL WORKSHOP ON SAND/DUSTSTORMS AND ASSOCIATED DUSTFALL. Athens, Greece, 7 - 9 September 2011.