



M. Carmen Alvarez-Castro

Date of birth: 19/12/1983 | **Nationality:** Spanish | **Gender:** Female |

(+39) 0510301603 | carmen.alvarez-castro@cmcc.it |

<https://orcid.org/0000-0002-9958-010X> | viale Berti Pichat, 6/2, 40126, Bologna, Italy

About me:

PhD in Climate Sciences, working in extreme events, climate variability, predictability, and climate services.

WORK EXPERIENCE

01/02/2022 – CURRENT – Bologna, Italy

JUNIOR SCIENTIST – CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI (CMCC)

Climate Simulations and Predictions Division (CSP).

30/09/2019 – CURRENT – Seville, Spain

PART-TIME LECTURER – UNIVERSIDAD PABLO DE OLAVIDE

Degrees: [Environmental Sciences](#), [Agricultural Degree and Geography](#).

Subjects: Meteorology and Climatology, Energy, Global Change and Noise Pollution.

ECTS: 2019/2020: 4.28 ECTS, 2020/2021: 7.90 ECTS, 2021/2022: 15 ECTS

01/02/2020 – 31/01/2022 – Seville, Spain

SCIENTIST – UNIVERSIDAD PABLO DE OLAVIDE

Principal Investigator (PI) of the ERDF (European funding for Regional Development) project EFIMERA "Evaluation of Future Impacts of Mediterranean mesoscale cyclones and Risks Associated" (2020-2022).

01/10/2017 – 31/01/2020 – Bologna, Italy

JUNIOR SCIENTIST – CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI (CMCC)

Climate Simulation and Prediction Division (CSP)

14/09/2014 – 30/09/2017 – Gif-sur-Yvette, France

POSTDOCTORAL RESEARCHER – LSCE-IPSL

ESTIMR team, LSCE-IPSL. MILEX project: Extratropical climate variability during the last millennium, atmospheric circulation and extreme events. A2C2 project: Atmospheric flow Analogues for Climate Change. Supervisor: Dr. Pascal Yiou.

16/09/2013 – 16/06/2014 – Ispra, Italy

RESEARCHER – JRC-EUROPEAN COMMISSION

Climate Risk Management Unit at IES, JRC-ISPRA. ECLAIRE project: Effects of Climate Change on Air Pollution and Response Strategies for European Ecosystems. Supervisor: Dr. Alessandro Cescatti.

14/09/2011 – 31/08/2013 – Seville, Spain

PART-TIME LECTURER – UNIVERSITY PABLO DE OLAVIDE

Degree: Environmental Sciences Degree.

Subjects: Meteorology and Climatology, Global Change and Noise Pollution.

ETCS: 2011/2012: 12 ECTS, 2012/2013: 15 ECTS

08/09/2012 – 10/12/2012 – Lisbon, Portugal

VISITING RESEARCHER – IDL-UNIVERSITY OF LISBON

Grant of Santander Bank for Young Researchers and Professors. Supervisor: Dr. Ricardo M. Trigo

01/07/2009 – 31/05/2012 – Seville, Spain
RESEARCHER – UNIVERSITY PABLO DE OLAVIDE

Salva-Sinobas project: Study of climate variability in the Iberian peninsula during 1750-1850. Supervisors: Dr. David Gallego, Dr. Pedro Ribera

08/09/2008 – 08/05/2009 – London, United Kingdom
RESEARCH GRANT EUROPEAN SCIENCE FOUNDATION – TNA AND UNIVERSITY OF SUNDERLAND

MedCLIVAR project: The climate of the Mediterranean sea during the Maunder Minimum from old Royal Navy logbooks. Supervisor: Dr. Dennis Wheeler

● EDUCATION AND TRAINING

01/04/2010 – 20/06/2014 – Seville, Spain
PHD CLIMATOLOGY – University Pablo de Olavide

Thesis: "Westerly Index: Un nuevo índice de vientos del oeste en el Canal de la Mancha a partir de observaciones en los diarios de navegación de la Royal Navy (1685-2008)". Mention: International PhD, CUM-LAUDE. Supervisors: Dr. David Gallego and Dr. Pedro Ribera.

Address Seville, Spain

01/10/2006 – 01/02/2008 – Granada, Spain
MASTER IN GEOPHYSICS AND METEOROLOGY – University of Granada

Master's Thesis: Techniques and applications of statistical downscaling for study of climate change in Andalusia. Supervisors: Dr. Yolanda Castro Díez and Dr. M. Jesús Esteban Parra.

Address Granada, Spain

01/01/2001 – 15/09/2006 – Huelva, Spain
DEGREE IN ENVIRONMENTAL SCIENCES – University of Huelva

Address Huelva, Spain

● LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	C1	C1	C1	C1	C1
ITALIAN	C1	C1	C1	C1	C1
PORTUGUESE	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

R Language and R Studio | Bash Programming | CDO NCO NCL - Manipolazione di file in formato NetCDF e GRIB | Climate modeling | GIT (GitHub) | LaTeX Overleaf | Very good knowledge of MS Office (Outlook Word PowerPoint Excel) | LINUX / UNIX / MAC OSX / WINDOWS | Machine learning algorithm | Social Media

ORGANISATIONAL SKILLS

Organisational skills

- Organizer of Workshop on [Future Risks and Impacts of intense Mediterranean cyclones](#). Universidad Internacional de Andalucía, UNIA, Baeza, Jaén (Spain), 16th to 18th May, 2022
- Convener at the European Geosciences Union General Assembly (EGU) 2018, 2019, 2020, 2021, and planned for 2022 Session: [Dynamical Extremes in Climate Sciences](#).
- Convener at International Meeting of Statistical Climatology, IMSC2019, 23-28 June 2019. Session 4: Space-time statistics.
- Guest Editor at Atmosphere Journal of the Special Issue: [Long Term Climate Variability in the Mediterranean Region](#).
- Member of COAMBA: Colegio Oficial de Ambientólogos de Andalucía.
- Leader of the [Mediterranean Seasonal Climate Update](#), a monthly update with the seasonal forecast in the Mediterranean area for the upcoming season.

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- Award for the best oral communication in Ambientalia: Cambio climático by Federación Andaluza de Ciencias Ambientales, Huelva, (Spain) 2008.
- Contributions to international conferences: 45

JOB-RELATED SKILLS

Supervision of Students:

1. Master student: "Impacto de ciclones en el Mediterráneo". Nerea Cañestro Rodríguez. University Pablo de Olavide, Seville, Spain. 2020/2021.
2. Degree student: "Borrascas de gran Impacto en España 2017-2021". Celia Álvarez Aparicio. University Pablo de Olavide, Seville, Spain. 2020/2021.

Ongoing:

1. PhD student working in "Detection, Drivers and Impacts of Heatwaves in India" at CMCC, Italy
2. Master student working in "Impacts and predictability of heatwaves in Spain", at UPO, Spain.
3. Degree student working in "Extremes of precipitation in the Iberian Peninsula" at UPO, Spain

I have qualification as Maitre de Conference in France.

01/02/2020 – CURRENT

International/National Projects

Leader of an ERDF project as principal investigator EFIMERA (Evaluation of Future Impacts of intense cyclones in the Mediterranean, Risks Associates) at UPO (2020-2022), leader of the events work package extremes (WP4) in the European project (JPI) ROADMAP (The Role of ocean dynamics and Ocean-Atmosphere interactions in Driving climate variations and future Projections of impact relevant extreme events), and researcher in the BITACOR project (Reconstruction of the climate from logbooks, UPO project) at UPO. In the past 10 years I have been involved in the following projects: ERA4CS JPI projects (MEDSCOPE), H2020 projects (A2C2, COACCH), National Projects (Salva Sinovas, Spain), and International Projects (MILEX, Sweden).

Publications

- Perez-Zanon, N., LP Caron, MC Alvarez-Castro et al, 2021. <https://doi.org/10.5194/gmd-2021-368>

- Gaetani M, Pohl B, MC Alvarez-Castro et al, 2021. <https://doi.org/10.5194/acp-21-16575-2021>
- Fedele, G, T Penduff, S Pierini, MC Alvarez-Castro, A Bellucci and S Masina. 2021 <https://doi.org/10.1007/s00382-021-05751-7>.
- Alvarez-Castro MC and P Ribera. 2020. <https://doi.org/10.3390/atmos11111172>.
- Pons, FME, G Messori, MC Alvarez-Castro, D Faranda. 2020. [10.1007/s10955-020-02573-5](https://doi.org/10.1007/s10955-020-02573-5)
- Ruggieri, P, MC Alvarez-Castro, P Athanasiadis, A Bellucci, S Materia, S Gualdi. 2020. <https://doi.org/10.1175/JCLI-D-19-0498.1>
- Materia, M, A Muñoz, S Mason, MC Alvarez-Castro, F Vitart, S Gualdi. 2019. <https://doi.org/10.1175/WAF-D-19-0086.1>
- Perez-Zanon, N, LP Caron, MC Alvarez-Castro, J von Hardenberg, L Lledo, N Manubens, E Sanchez-Garcia, B van Schaeybroeck, V Torralba, D Verfaillie. 2021 <https://rdrr.io/cran/CSTools/>
- Alvarez-Castro, MC , D Faranda, P Yiou. 2019 <https://doi.org/10.3390/atmos10040166>
- Faranda, D, MC Alvarez-Castro, G Messori, and P Yiou. 2019 <https://doi.org/10.1038/s41467-019-09305-8>
- Messori, G, P Davini, MC Alvarez-Castro, FSR Pausata, R Caballero. 2019 <https://doi.org/10.1007/s00382-018-4373-2>.
- Rodrigues, D., M.C. Alvarez-Castro, G. Messori, Y. Robin, P. Yiou, D. Faranda. 2018. <https://doi.org/10.1175/JCLI-D-17-0176.1>.
- Vautard, R., N. Christidis, A. Ciavarella, M. C. Alvarez-Castro, O. Bellprat, B. Christiansen, I. Colfescu, T. Cowan, F. Doblas-Reyes, J. Eden, M. Hauser, G. Hegerl, N. Hempelmann, K. Klehmet, F. Lott, C. Nangini, R. Orth, S. Radanovics, S. I. Seneviratne, G.J. van Oldenborgh, P. Stott, S. Tett, L. Wilcox, P. Yiou. 2018 <https://doi.org/10.1007/s00382-018-4183-6>.
- Mellado-Cano, D., D. Barriopedro, R. Garcia-Herrera, R. M. Trigo, M.C. Alvarez-Castro. 2018 <https://doi.org/10.1175/JCLI-D-17-0261.1>.
- Christiansen, B. , M.C. Alvarez-Castro, N. Christidis, A. Ciavarella, I. Colfescu, T. Cowan, J. Eden, M. Hauser, N. Hempelmann, K. Klehmet, F. Lott, C. Nangini, G. J. van Oldenborgh, R. Orth, P. Stott, S. Tett, R. Vautard, L. Wilcox, P. Yiou. 2018 <https://doi.org/10.1175/JCLI-D-17-0589.1>.
- Alvarez-Castro, M.C., D. Faranda, P. Yiou. 2018 <https://doi.org/10.1155/2018/2494509>.
- Faranda, D., G. Messori, M.C. Alvarez-Castro, P. Yiou. 2017 [10.5194/npg-24-713-2017](https://doi.org/10.5194/npg-24-713-2017)
- Hempelmann, N. , C. Ehbrecht, M.C. Alvarez-Castro, et al. 2017. [10.1016/j.cageo.2017.10.004](https://doi.org/10.1016/j.cageo.2017.10.004)
- Faranda, D. , M.C. Alvarez-Castro, P. Yiou. [10.1007/s00382-016-3042-6](https://doi.org/10.1007/s00382-016-3042-6). 2016.
- Barriopedro, D. ,D. Gallego, M.C. Alvarez-Castro, R. García-Herrera, D, Wheeler, C. Peña-Ortiz and, S. M. Barbosa. [10.1007/s00382-013-1957-8](https://doi.org/10.1007/s00382-013-1957-8). 2014.
- Peña-Ortiz, D. Gallego, P. Ribera, P. Ordoñez-Perez, M.C. Alvarez-Castro. [1002/jgrd.50305](https://doi.org/10.1002/jgrd.50305). 2013
- Luterbacher, J. ,R. García-Herrera, A. R. Allan, M.C. Alvarez-Castro, et al.. 2012. DOI: 10.1016/B978-0-12-416042-2.00002.
- Alvarez-Castro, M.C., Y. Castro-Díez, M.J. Esteban-Parra, S.R. Gámiz Fortis. 2008 ISBN: 13978- 84-97856-60-8 , 1084-96856-60-7. Depósito legal: H-81-2008.