

PERSONAL INFORMATION

Marianna BENASSI

✉ marianna.benassi@cmcc.it

WORK EXPERIENCE

July 2020 – now

Junior Research Associate

Fondazione CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)
Climate Variability and Prediction (CLIVAP) division

My activity is mainly devoted to the development and the maintenance of the CMCC seasonal forecast system (currently in the framework of the C3S2_370 Operational Seasonal Predictions project), and in the analysis of the CMCC-SPS forecast results.

Business or sector: Research Institute

December 2016 – June 2020

PostDoc fellow

Fondazione CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)
Climate Simulation and Prediction (CSP) division

My research activity has been devoted to the study of potential sources of predictability for the Euro-Mediterranean climate on different time scales in the framework of the ERA4CS-MEDSCOPE and the H2020-EUCP projects. I have gain experience in climate service activities collaborating in the C3S-SIS European Tourism contract.

Business or sector: Research Institute

February - August 2013

Internship

CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)

Business or sector: Research Institute

EDUCATION and TRAINING

September 2013 – February 2017

PhD in Science and Management of Climate Change

Ca' Foscari University of Venice and CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)

My PhD activity has been carried on at CMCC under the supervision of Dr Antonio Navarra. The title of my final dissertation is *Defining the time and spatial scale of climate response to CO₂ changes*, which led to the doctorate being awarded with honours.

a.y. 2009/2010 – 2011/2012

Master's degree in Physics

Alma Mater Studiorum – University of Bologna

The title of my final dissertation is *Temperature and CO₂ relations in ensemble climate change scenarios*, and this work was developed under the supervision of Prof Enzo Boschi and Dr Antonio Navarra. I graduated with the maximum grade (110/110) *cum laude*.

a.y. 2005/2006 – 2008/2009

Bachelor's degree in Physics

Alma Mater Studiorum – University of Bologna

I have worked for my final project in Physics of Volcanism with Prof Maurizio Bonafede, and I graduated with the maximum grade (110/110) *cum laude*.

a.y. 2000/2001 – 2004/2005

High School Diploma

Liceo Ginnasio Luigi Galvani, Bologna

My final examination was evaluated with the maximum grade (100/100).

PERSONAL SKILLS

Mother tongue(s)

Other language(s)

English

Italian

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Organisational/managerial skills

Strong problem-solving attitude and mediation skills put into practice as elected student representative in the board of the PhD programme in Science and Management of Climate Change, University of Venice (a.y. 2013/2014 – 2015/2016).

Technical Skills

Programming Languages and Software: C/C++ (beginner), Python (intermediate), Fortran (intermediate), MatLab (intermediate), Shell (advanced), LaTeX (advanced)

Software for climate data analysis: CDO, NCL, NCO, GrADs

Operating System: Unix, Windows

Experience with climate simulations in parallel environment (e.g. CESM - Community Earth System Model)

ADDITIONAL INFORMATION

Publications and scientific contributions

Benassi, M., Conti, G., Gualdi, S., Ruggieri, P., García-Serrano, J., Palmeiro, F.M., Batté, L., Ardilouze, C. (2021). El Niño teleconnection over the Euro-Mediterranean sector: the role of extratropical Pacific modulation, *Climate Dynamics*, 1-21. <https://doi.org/10.1007/s00382-021-05768-y>

Brunner, L., McSweeney, C., Ballinger, A. P., Befort, D. J., **Benassi, M.**, Booth, B., Coppola, E., de Vries, H., Harris, G., Hegerl, G. C., Knutti, R., Lenderink, G., Lowe, J., Nogherotto, R., O'Reilly, C., Qasmi, S., Ribes, A., Stocchi, P., & Undorf, S. (2020). Comparing Methods to Constrain Future European Climate Projections Using a Consistent Framework, *Journal of Climate*, 33(20), 8671-8692. <https://doi.org/10.1175/JCLI-D-19-0953.1>

Ardilouze, C., Materia, S., Batté, L., **Benassi, M.**, & Prodhomme, C. (2020). Precipitation response to extreme soil moisture conditions over the Mediterranean, *Climate Dynamics*, 1-16. <https://doi.org/10.1007/s00382-020-05519-5>

Mezzina, B., García-Serrano, J., Bladé, I., Palmeiro, F. M., Batté, L., Ardilouze, C., **Benassi, M.**, & Gualdi, S. (2020). Multi-model assessment of the late-winter extra-tropical response to El Niño and La Niña, *Climate Dynamics*, 1-22. <https://doi.org/10.1007/s00382-020-05415-y>

Materia, S., Ardilouze, C., Prodhomme, C., Donat, M.G., **Benassi, M.**, Doblas-Reyes, F.J., Peano D., Caron, L.P., Ruggieri, P., & Gualdi, S. (2021). Summer temperature response to extreme soil water conditions in the Mediterranean transitional climate regime, *Climate Dynamics*, 1-21. <https://doi.org/10.1007/s00382-021-05815-8>

Mezzina, B., Palmeiro, F. M., García-Serrano, J., Bladé, I., Batté, L., & **Benassi, M.** (2021). Multi-model assessment of the late-winter stratospheric response to El Niño and La Niña, *Climate Dynamics*, 1-21. <https://doi.org/10.1007/s00382-021-05836-3>

Ruggieri, P., **Benassi, M.**, Materia, S., Peano, D., Ardilouze, C., Batté, L., & Gualdi, S. (2021). On the role of Eurasian autumn snow cover in dynamical seasonal predictions, *Clim Dyn* **58**, 2031–2045 (2022). <https://doi.org/10.1007/s00382-021-06016-z>

Conferences and meetings

Benassi M., Athanasiadis P., Borrelli A., Cavicchia L., Gualdi S., Hashemi Devin M., Nicoli D., Sanna A., and Tibaldi S., A NAO-based subsampling approach for winter seasonal predictions. *In prep.*
Benassi, M., & Navarra, A. The Response of the Atmosphere to Local CO₂ Changes. Poster presentation at the **SISC Annual Conference 2017 (Bologna - Italy, October 2017)** and at the **EGU Annual Meeting 2018 (Wien - Austria, April 2018)**.

Benassi, M., Materia, S., Ruggieri, P., & Gualdi, S. Remote sources of predictability for the Mediterranean climate. Oral presentation at the **SISC Annual Conference 2018 (Venice - Italy, October 2018)**.

Benassi, M., Materia, S., Ruggieri, P., & Gualdi, S. ENSO teleconnections over the Euro-Mediterranean region: the role of PDO modulation. Oral presentation at the **EMS Annual Meeting 2018 (Budapest - Hungary, September 2018)**, at the **MEDCLIVAR 2018 Conference (Belgrade - Serbia, September 2018)**, at the **EGU Annual Meeting 2019 (Wien-Austria, April 2019)**, and at the **EMS Annual Meeting 2019 (Copenhagen-Denmark, September 2019)**.

Benassi, M., Materia, S., Ruggieri, P., Batté, L., Ardilouze, C., García-Serrano, J., Palmeiro, F.M., Prodhomme, C., & Gualdi, S. Seasonal sources of predictability for the Euro-Mediterranean sector from different Earth system components. Oral presentation at the **SISC Annual Conference 2019 (Trento - Italy, October 2019)**.

Benassi, M., Conti, G., Gualdi, S., Ruggieri, P., García-Serrano, J., Palmeiro, F.M., Batté, L., & Ardilouze, C., ENSO teleconnection over the Euro-Mediterranean sector: the role of extratropical Pacific modulation. Poster presentation at the virtual **EGU Annual Meeting 2020**.

Benassi, M., Conti, G., Gualdi, S., Ruggieri, P., Materia, S., García-Serrano, J., Palmeiro, F.M., Batté, L., & Ardilouze, C., El Niño teleconnection to the Euro-Mediterranean late-winter: the role of extratropical Pacific modulation. Lightning talk at the virtual **EMS Annual Meeting 2021**.

Benassi M., Athanasiadis P., Borrelli A., Cavicchia L., Gualdi S., Hashemi Devin M., Sanna A., and Tibaldi S., A NAO-based subsampling approach for winter seasonal predictions. Oral presentation at **ATMOS2024 conference (Bologna – Italy, July 2024)** and at **EMS Annual Meeting 2024 (Barcelona and online, September 2024)**
Predictability and ensemble forecast systems (March 2021, ECMWF - virtual)

Summer schools and topical courses

Introduction to Python Programming (February 2020, CINECA - Milano, Italy)

CDS training session (May 2018, ECMWF - Reading, UK)

Introduction to Parallel Computing (February 2017, CINECA – Bologna, Italy)

Visiting periods

CESM Tutorial 2014 (August 2014, National Center for Atmospheric Research – Boulder, Colorado)

In fall 2015, I spent a three-month visiting period at NCAR (National Center for Atmospheric Research – Boulder, Colorado), where I have worked under the supervision of Dr Joe Tribbia.

Mentoring activity

In spring 2019 I have supervised Ms Erika van der Linden (master student at Delft University of Technology) during her internship at CMCC Foundation, focused on the analysis of uncertainty in ensembles of climate simulations.

Curriculum Vitae in formato europeo di ciascuna risorsa impegnata nell'attuazione del programma di ricerca del CN, redatto in lingua inglese e contenente l'autorizzazione al trattamento dei dati personali (According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV)

May, 14th 2025

Marianna Benassi