

Marisol Osman
CURRICULUM VITAE

1. PERSONAL DATA

Name: Marisol OSMAN

Date of birth: May 21, 1987

Nationality: Argentina

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Current Positions: - Researcher at Centro de Investigaciones del Mar y la Atmósfera. Since November 2022. Current Research plan: Development of subseasonal forecasts for its application by different sectors.

Current Research: I'm working on climate variability, predictability and prediction over the Southern Hemisphere and South America. In particular, I'm interested in analyzing the sources of predictability, especially those from high and polar latitudes, model calibration techniques and usability of climate information by socio-economic actors.

Key Skills: I have 12 years postgraduate experience working in climate science, with emphasis in climate predictability and prediction. I also have experience teaching a variety of topics from atmospheric thermodynamics to climate change. I have experience working within the Python data science ecosystem.

Past Positions: - Postdoctoral researcher at Karlsruhe Institute of Technology. September 2021 - September 2023.

- Junior Researcher at Centro de Investigaciones del Mar y la Atmósfera. November 2018 - October 2022. Research plan: Impact of the Southern Annular Mode dynamics and its combined action with ENSO on South American climate. Supervisor: Carolina Vera.

2. EDUCATION

Apr 2012-Mar 2017. Degree: PhD in Atmospheric and Ocean Sciences. University of Buenos Aires. 2012-2017. **Thesis Title:** "Predictability and prediction skill on seasonal timescales over South America". **Advisor:** Carolina Vera.

Apr 2005-Mar 2012. Degree: Licentiate in Atmospheric Sciences (Master level). University of Buenos Aires. 2005-2012. **Thesis Title:** "Statistical and Dynamical basis for seasonal forecast of summer precipitation in the East of Argentina". **Advisor:** Carolina Vera.

3. FELLOWSHIPS

April 2017- November 2018: Post Doctoral fellowship funded by CONICET (National

Scientific and Technical Research Council) at CIMA/UBA-CONICET, Buenos Aires, Argentina. Supervisor: Carolina Vera

April 2012-March 2017: PhD. Fellowship funded by CONICET at CIMA/UBA-CONICET, Buenos Aires, Argentina. Supervisor: Carolina Vera.

November 2008- March 2012: CLARIS-LPB Project. Undergraduate Fellowship at CIMA/UBA-CONICET. Supervisor: Carolina Vera.

4. PUBLICATIONS

4.1 JOURNALS

I published 26 articles in peer-reviewed journals, 7 of them as lead author. Please refer to my ORCID profile for more details. <https://orcid.org/0000-0002-6275-1454>

4.2 BOOK CHAPTERS

RUIZ, J., ALDECO L., DIEHL A., GARCÍA SKABAR Y., MATSUDO C., **OSMAN M.**, PELOROSSO L., SAULO. C., VERA C. Cap 37: Aplicaciones en Argentina. Física del Caos en la Predicción Meteorológica. Ed. Carlos Santos Burguete. Agencia Estatal de Meteorología de España. DOI: 10.31978/014-18-009-X

http://www.aemet.es/es/conocermas/recursos_en_linea/publicaciones_y_estudios/publicaciones/detalles/Fisica_del_caos_en_la_predicc_meteo

4.3 TECHNICAL REPORTS

Naumann, G., Podestá, G., Marengo, J., Luterbacher, J., Bavera D., Acosta Navarro, J., Arias Muñoz, C., Barbosa, P., Cammalleri, C., Cuartas, A., de Estrada, M., de Felice M., de Jager, A., Escobar, C., Fioravanti, G., Giordano, Harst Essenfelder, A., L., Hidalgo, C., Leal de Moraes, O., Maetens, W., Magni, D., Masante, D., Mazzeschi, M., **Osman, M.**, Rossi, L., Seluchi, M., de los Milagros Skansi, M., Spennemann, P., Spinoni, J., Toreti, A., Vera, C., Extreme and long-term drought in the La Plata Basin: event evolution and impact assessment until September 2022, Publications Office of the European Union, Luxembourg, 2022, doi:10.2760/62557, JRC132245.

Osman Marisol, Alvarez MS. "Variabilidad climática intraestacional: más allá del Niño". Boletín técnico del Programa Presupuestal por Resultados vol. 4 N° 8 de agosto de 2017. Instituto Geográfico de Perú.

Godoy A. A., **M Osman**, L. E. Ferreira, M. M. Skansi, y C. Vera, 2019: Aplicación del índice LISAM en el monitoreo del monzón sudamericano. Reporte Técnico SMN 2019-53.

4.4 PRESENTATIONS IN CONFERENCES /WORKSHOPS

Since 2012 I have presented more than 20 works in local, regional and international conferences either as a poster or oral presentation.

5. STUDENT SUPERVISION

I have supervised or co-supervised 5 Master students either at UBA or KIT

I have co-supervised one Bachelor student at KI

I'm currently supervising or co-supervising 3 PhD students at UBA

6. PROJECTS

CURRENT PROJECTS

Interactions between multiple large-scale climate patterns and their impacts in South American Climate. Institution: University of Buenos Aires. **PI:** Carolina Vera

CLIMAX (Climate Services Through Knowledge Co-Production: A Euro-South American Initiative for Strengthening Societal Adaptation Response to Extreme Events). **PI:** Carolina Vera.

PAST PROJECTS

I led 2 project funded by national institutions. the University of Buenos Aires. I have participated as a researcher in multiple projects funded by local and international institutions.

7. TEACHING EXPERIENCE

All the positions were obtained by open and competitive selection processes.

May 2024 - Present. Professor at the Department of Atmosphere and Ocean Sciences, School of Sciences, University of Buenos Aires, Argentina.

March 2017 - April 2024. Teaching Assistant at the Department of Atmosphere and Ocean Sciences, School of Sciences, University of Buenos Aires, Argentina.

March 2014 - February 2017. Graduate Assistant at the Department of Atmosphere and Ocean Sciences, School of Sciences, University of Buenos Aires, Argentina.

August 2012 – July 2013. Undergraduate Assistant at the Department of Atmosphere and Ocean Sciences, School of Sciences, University of Buenos Aires. Buenos Aires, Argentina.

Lecturer in short courses (by invitation)

Lecturer in the “South American School on Predictability and Prediction on Subseasonal Timescales” organized by the WMO. Paraguay 10/07/2017 al 14/07/2017.

Lecturer in the “10 International Training Workshop. Theme: Subseasonal to seasonal forecasting” organized by NOAA-USAID. Guayaquil, Ecuador. 9/07/2018 al 20/07/2018.

8. COOPERATION AGREEMENTS

I signed an agreement with the Argentine Meteorological Service to implement the seasonal forecast system developed during my PhD and Postdoc.

9. COURSES

I took more than 10 courses, mostly on Subseasonal to Seasonal prediction and computing tools.

10. SKILLS

Programming: Good Programming skills in Python and R.

Language: Spanish (native), English (advanced)

11. EXPERIENCE AS REVIEWER

Editor of the Journal of the Southern Hemisphere Earth System Sciences

Guest Editor Climate Services Journal Special Issue on Sub-seasonal to Decadal Predictions in support of Climate Services. 2021-2023

Revision of articles submitted to Journal of Climate, Tellus, Meteorological Applications, Climate Dynamics, Advanced in Science and Research, International Journal of Climatology, Revista Brasileira de Meteorologia and Meteorológica.

Reviewer of the First Order Draft and Second Order Draft of the IPCC WGI AR6.

12. AWARDS

Best Poster Award. WCRP-LAC conference: developing, linking and applying climate knowledge. 17/03/2014 al 21/03/2014. Montevideo, Uruguay.(Poster: Potential predictability of South America temperature and precipitation in CHFP and SHFP models by Osman M. and Vera, C)

13. OTHER ACTIVITIES

Member of the World Weather Research Programme Project entitled Subseasonal Applications for Agriculture and Environment (SAGE).

Member of the World Climate Research Programme Working Group on Subseasonal to Interdecadal Climate Prediction (WGSIP)

Joint Monthly Climate Briefings: In collaboration with the Argentina National Weather Service (SMN) the Department of Atmospheric and Ocean Science (DCAO) and CIMA I co-organize the joint CIMA-DCAO-SMN monthly climate briefing to present and discuss with the academic and operational weather and climate community the past climate conditions responsible for the climate anomalies observed in Argentina and South America. I participate and co-organize this activity since August 2011

Member of the Executive Committee of **YESS (Young Earth System Scientist)** community. YESS, the Young Earth System Scientists community, is an interdisciplinary early career scientists network. YESS community unifies international and multidisciplinary early career scientists in a powerful network, providing a voice and leverage for a better future to serve

society. As an Executive Committee member I'm responsible for maintaining and guiding YESS activities and working groups. <http://yess-community.org>

I have co-organized 2 international workshops for ECRs in the past 5 years.

I made short visits to the NOAA Climate Prediction Center, Australian Bureau of Meteorology, MeteoFrance and CPTEC to learn about the forecast tools and practices in those institutions.

Academic Visitor at the University of Reading. Supervisor: Ted Shepherd. April-June 2019.