Gonzalo M. Díaz

Meteorologist (M. Sc.)

20 oct 1985

Buenos Aires, Argentina

2. Education

08/2006 - 12/2015

Master's Degree in Atmospheric Sciences (M.Sc.)

Department of Atmospheric and Ocean Sciences. Facultad de Ciencias Exactas y Naturales
University of Buenos Aires

Master's thesis: "Adjustment of a one-dimensional soil moisture model in localities of the province of Entre Ríos using in-situ observations and remote sensing".

January 2012

English (B2)
First Certificate in English (FCE)

University of Cambridge

Reading	8 / 10
Talking	6 / 10
Writing	7 / 10

03/1999 - 12/2004

Electronic and Electromechanical Technician

Technological Institute Philips Argentina

1. Work experience

Scientific Application Analyst with a focus on Climate Services for Water Resources | National Meteorological Service — **12/2012 - today**

Department of Science, Technology and Production
Ministry of Defence

In charge of quality control of the water level data of the NMS stations. Control of daily precipitation data from NMS stations. Implementation of operational hydrological modeling for hydrometric heights and flood monitoring. Preparation of damage reports, due to meteorological phenomena, destined for private companies and other areas of the NMS and due to legal requirements. Updating of the products and development of new products for the NMS website and for the different Sector Services (Water Resources, Agriculture, Energy, etc.).

Head of Practical Work (head teacher) — **03/2021 - today**

Department of Atmospheric and Ocean Sciences
Facultad de Ciencias Exactas y Naturales. University of Buenos Aires (UBA)

Part-time research consultant — **01/2018 - today**

Department of Atmospheric and Ocean Sciences
Facultad de Ciencias Exactas y Naturales. University of Buenos Aires (UBA)

UBACyT Project 20020170100117BA
Daily extreme precipitation events in southeastern South America: statistical and dynamic climate modeling and evaluation of its hydrological impacts.

PICT-2018-02496 Project
Statistical and dynamic modeling of daily extreme precipitation events in southeastern South America.

Professor — **03/2020 - today**

Master in Water Management.
Subject: Climate System
Facultad de Ciencias Veterinarias. University of Buenos Aires (UBA)

First Class Assistant (teacher assistant) — **02/2017 - 02/2021**

Department of Atmospheric and Ocean Sciences
Facultad de Ciencias Exactas y Naturales. University of Buenos Aires (UBA)

Second Class Assistant (teacher assistant) — **08/2011 - 02/2016**

Department of Atmospheric and Ocean Sciences
Facultad de Ciencias Exactas y Naturales. University of Buenos Aires (UBA)

3. Most relevant publications

- **Díaz G.**, Cerrudo C., Godoy A., & Ferreira L. (2024). "Value of hydroclimatic information for decision making in the hydropower sector from a soil model: Correction with multiple linear regressions". In: *XXX scientific meeting of the Argentine association of Geophysicists and Geodesists, Argentina, Apr 15-19*.

4. Barskills

R language 85%

R shiny library (package for web apps) 50%

R Azure Microsoft libs 35%

Own R libraries creation 60%
CRAN link: aws.wrfsmn
GitHub link: era5.aws

Linux environment 80%

Bash programming 65%

MATLAB / Octave language 70%

GrADS language 65%

Python language 20%

GitHub 40%

Q-GIS software 60%

LaTeX language 50%

5. Distinctions

- **Distinction for the best work team in the Fifth Workshop on Water Resources in Developing Countries**. *(Collective award).*
  Name of the work: A performance comparison between the CHyM and VIC models for a sub-basin within La Plata Basin.
  Given by International Centre for Theoretical Physics (ICTP)
- **Diploma of honor for the "Meritorious Performance for Joint Work"**. *(Collective award).*
  Given by the National Meteorological Service

- Cerrudo C., Godoy A., **Díaz G.**, Garbarini E. & Ferreira L. (2024). "A climate service co – production experience tailored to the hydroenergy sector in South America". In: *2nd WMO/WWRP Weather & Society Conference*.
- Doyle M., **Díaz G.**, Solman S., Betolli M.L., Olmo M., Blazquez J., Martinez D., Balmaceda Huarte R., Leyba I., Chavez L. & Feijoo M. (2023). "Simulation of extreme daily river flow events in the Uruguay River". In revision: *Hydrological Sciences Journal*.
- Nollas F., Orte F., Lell J., **Díaz G.** & Wolfram E. (2022). "Preliminary analysis for quality control of global solar radiation data from automatic weather stations". In: *Technical Note SMN 2022-119*.
- Hobouchian P., **Díaz G.**, Vidal L., García Skabar Y., de Elía R., Ferreira L., Maas M., Rossi Lopardo M.S., Veiga H. and Rugna M. (2021). "Adjustment of the IMERG satellite precipitation estimation with pluviometric observations in Argentina". In *Technical Note SMN 2021-105*.
- Doyle M., Chavez L. & **Díaz, G.**,(2021). "Hydrological simulations of the Uruguay river based on observational and hybrid precipitation data sources". In: *XXIX scientific meeting of the Argentine association of Geophysicists and Geodesists, Argentina, Aug 02-10*.
- Rossi Lopardo M.S., Veiga H., Hobouchian M.P., **Díaz G.** and Ferreira L. (2021). "Quality control of rainfall data in real time". In *Technical Note SMN 2021-98*.
- **Díaz G.**, Vita M., Hobouchian P., Ferreira L. and Giordano L. (2021). "Expansion of the NMS network using precipitation data from third-party automatic weather stations". In *Technical Note SMN 2021-90*.
- **Díaz, G.**, Doyle M. & Chavez L. (2020). "Impact of satellite precipitation estimations on the flows of the Uruguay River". In: *15th International Meeting of Earth Sciences, Mendoza, Argentina, Nov 23-25*.
- **Díaz, G.**, Oliveri P., Meis M. & Bianchi E. (2019). "Preliminary analysis of the performance of the CHyM and VIC hydrological models for the Uruguay river basin". In: *IV National Congress of Environmental and Technology Science, Buenos Aires, Argentina, Dec 02-05*.
- Solman S., Bettolli M.L., Doyle M., Blazquez J., Feijoo M., Olmo M., **Díaz, G.**, Balmaceda R. & Poggi M. (2019). "How well do RCMs and ESDs reproduce the occurrence of extreme precipitation events over Southeastern South America? A case study approach". In: *International Conference on Regional Climate CORDEX 2019. Beijing, China, Oct 14-18*.
- Cerrudo, C., **Díaz, G.**, Juárez S. & Ferreira L. (2017). "Analysis of the spatial-temporal relationship between the precipitation estimated by the TRMM satellite (3B42RT) and the average daily flow in the Iguazu river basin". In: *Meteorológica*.
- **Díaz, G.**, Doyle M. & Brizuela A. (2014). "Calibration of a one-dimensional hydrological model for the Diamante and Parana stations, Entre Rios". In: *Meteorológica*.

6. Training

- KCCP: Reinforcement of Meteorological Services
  (2023) October 01 to December 13. Tokyo, Japan. Provided by: Japan International Cooperation Agency (JICA) and Japanese Meteorological Agency (JMA). *Coordinators: area experts*.
- Satellite data calibration methodology with Machine Learning
  (2023) May 15 to 18 (virtual) and July 24 to 27. Buenos Aires, Argentina. Provided by: WMO SMN Regional Training Center. *Coordinators: area experts*.
- Building Capacity on Scientifically Tools and Methodologies for GIRH in La Plata Basin: Access to Data
  (2022) November 14 to 18. (virtual). Provided by: CIC La Plata Basin, National Weather Service of the U.S. National Oceanic and Atmospheric Administration (NOAA). *Coordinators: area experts*.

7. Extra-Curricular Activities

- Guitar
- Soccer
- Tennis
- Travel
- Yoga

8. Contact

2088 Scalabrini Ortiz Av.
City of Buenos Aires

+54 911 6377 9561

gonzalomartindiaz22@gmail.com

linkedin.com/Gonzalo-Díaz

github.com/Gonzalo1985

- Distance Learning Course "Interoperable Data Exchange in Hydrology"
  (2022) March 21 to May 06. (virtual). Provided by: World Meteorological Organization (WMO). *Coordinators: area experts*.

- Course of Machine Learning
  (2020) During 2020. Stanford, United States of America (virtually). Provided by: Stanford University, through Coursera platform. *Coordinator: Andrew Ng and others*.

- Global Flash Flood Guidance System Workshop
  (2019) November 04 to 08. Antalya, Turkey. Provided by: Hydrologic Research Center (HRC), National Weather Service of the U.S. National Oceanic and Atmospheric Administration (NOAA). *Coordinators: Konstantine Georgakakos and others* Duration time: 40 hours.

- Fifth Workshop on Water Resources in Developing Countries: Hydroclimate Modeling and Analysis Tools
  (2019) May 27 to June 07. Trieste, Italy. Provided by: International Centre for Theoretical Physics (ICTP). *Coordinators: Soroosh Sorooshian, Marco Verdecchia, Erika Coppola and Fabio di Sante.* Duration time: 74 hours.

- Remote Sensing application to support river basin management in Latin America and the Caribbean
  (2017) November 29 to December 06. Foz do Iguazu, Brazil. Provided by: National Aeronautics and Space Administration (NASA). *Coordinators: Dra. Erika Podest and Dra. Amita Mehta.* Duration time: 60 hours.

- Advanced course on hydrological forecasting
  (2016) June 06 to 10. Santa Cruz de la Sierra, Bolivia. Provided by: Ibero-American network for the monitoring and forecasting of hydrometeorological phenomena (PROHIMET). *Coordinators: Angel Luis Aldana Valverde, Javier Narbona, Gustavo Ferreira and Gloria Marín.* Duration time: 35 hours.

- Applied statistics in meteorology with R language
  (2015) August 27 to September 01. Buenos Aires, Argentina. *Coordinator: Dr. Gustavo Naumann.* Duration time: 20 hours.

- Workshop for Latin American Users of the SWAT model and introduction to the application of other hydrological models
  (2014) November 25 to 27. Buenos Aires, Argentina. Provided by: National Institute of Agricultural Technology (INTA). Duration time: 20 hours.

- Introduction to the use of the cluster and its applications
  (2014) August 06 to 07. Buenos Aires, Argentina. Provided by: Research Center of the Sea and the Atmosphere (CIMA). *Coordinator: Gabriel Vieytes.* Duration time: 14 hours.

Buenos Aires, 4th October 2024