

Mijael Rodrigo Vargas Godoy

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Soft Skills

- Commitment to Quality
- Continuous Learning
- Critical Thinking
- Cross-Functional Communication
- Leadership
- Project Management
- Public Speaking
- Research
- Written Communication

Hard Skills

- R
- LaTeX
- GitHub
- CDO
- NCO
- Zotero

Languages

- Spanish ● ● ● ● ●
- English ● ● ● ● ●
- Italian ● ● ● ● ●

Work Experience

- 05/2019 **Research Engineer** Khalifa University, UAE
 - Development of an algorithm to map sea ice by combining the latest innovations in remote sensing and machine learning in order to study the dynamics of Antarctic sea ice.
 - Air quality spatiotemporal analysis.
 - Fog detection, and climatological spatiotemporal analysis.
- 01/2018
- 05/2017 **Graduate Research Assistant** Masdar Institute, UAE
 - Studying the coupling/interaction relationship between dust and water from the mesoscale (atmospheric turbidity - precipitation) to the nanoscale (dust wettability) by means of climate dynamics, material surface characterization, and statistical data analysis.
- 08/2015
- 07/2015 **Jefe de Laboratorios de Física** Escuela Militar de Ingeniería, Bolivia
 - Lecturer of the physics' laboratory courses.
 - Responsible for laboratories' administration and training other professors on the use of laboratory equipment, and experiments performance.
- 02/2015

Education

- 03/2024 **Ph.D. in Water Resources and Environmental Modelling** Czech University of life Sciences Prague, Czechia
 - Thesis Title: Multi-source quantification of global water cycle components.
 - Member of the "Investigation of the Terrestrial Hydrological Cycle Acceleration" (ITHACA) project team
 - Member of the "Synthetic and Comparative Hydrology of Earth, Mars and Titan" (SCHEMATA) project team
 - Member of the "eXtreme European drOughtS" (XEROS) project team.
- 10/2019
- 05/2017 **M.Sc. in Water and Environmental Engineering** MIT Cooperative Program Masdar Institute, UAE
 - Thesis Title: Assessing the potential of laser-induced condensation in dusty arid environments.
 - GPA: 3.63/4.00
 - Honors & Awards: Best Thesis Award Nomination.
- 08/2015
- 07/2014 **Licenciatura en Física** Universidad Mayor de San Simón, Bolivia
 - Graduated by academic excellence: Outstanding performance and highest GPA of the class.
 - Honors & Awards:
 - Highest GPA and academic performance of the major - 2013.
 - Highest GPA and academic performance of the major - 2012.
 - Highest GPA and academic performance of the major - 2011.
- 02/2011

Grants

- 2023 CZU FZP IGA 2023B0001: CHIMERA: Charting Hydrological Intensification of atmospheric fluxes in Reanalysis data
- 2022 EGU23-259 ECTS: Water Cycle Changes in Reanalyses
- 2021 CZU UGC 65/2021: Water Cycle Intensification Over the Czech Republic
- 2020 CZU FZP IGA 2020B0001: A multi-scale framework for data analysis of global precipitation

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About Me

Highly motivated early career scientist working with statistics, satellite remote sensing, big data analysis, and machine learning pursuing a Ph.D. focused on Water Resources and Environmental Modelling at the Czech University of Life Sciences Prague.

Memberships



European Union

Geosciences



American Union

Geophysical

Publications

- 2024 Assessing Drought Impacts on Groundwater and Agriculture in Iran Using High-Resolution Precipitation and Evapotranspiration Products
Shayeghi, A., Rahmati Ziveh, A., Bakhtar, A., Teymoori, J., Hanel, M., Vargas Godoy, M.R., Markonis, Y. & AghaKouchak, A.
Journal of Hydrology
- 2024 Water Cycle Changes in Czechia: A Multi-Source Water Budget Perspective
Vargas Godoy, M.R., Markonis, Y., Rakovec, O., Jeníček, M., Dutta, R., Pradhan, R.K., Bešťáková, Z., Kyselý, J., Juras, R., Papalexidou, S.M., & Hanel, M.
Hydrology and Earth System Sciences
- 2023 pRecipe: A global precipitation climatology toolbox and database
Vargas Godoy, M.R. & Markonis, Y.
Environmental Modelling & Software
- 2023 Water Cycle Changes in Reanalyses: A Complementary Framework
Vargas Godoy, M.R. & Markonis, Y.
Scientific Reports
- 2022 Aridity Index in Europe During the Period 1950–2019
Bešťáková, Z., Strnad, F., Vargas Godoy, M.R., Singh, U., Markonis, Y., Hanel, M., Máca, P. & Kyselý, J.
Theoretical and Applied Climatology
- 2022 A 500-year annual runoff reconstruction for 14 selected European catchments
Nasreen, S., Součková, M., Vargas Godoy, M.R., Singh, U., Markonis, Y., Kumar, R., Rakovec, O. & Martin, H.
Earth System Science Data
- 2022 Review of GPM IMERG performance: A global perspective
Pradhan, R.K., Markonis, Y., Vargas Godoy, M.R., Villalba-Pradas, A., Andreadis, K.M., Nikolopoulos, E.I., Papalexidou, S.M., Rahim, A., Tapiador, F.J. & Hanel, M.
Remote Sensing of Environment
- 2021 The global water cycle budget: A chronological review
Vargas Godoy, M.R., Markonis Y., Hanel M., Kyselý J. & Papalexidou, S.M.
Surveys in Geophysics
- 2017 Surface alteration of calcite: interpreting macroscopic observations by means of AFM
Al Mahri, M.A., Alshehhi, M., Olukan, T., Vargas Godoy, M.R., Molini, A., Alhassan, S. & Chiesa, M.
Physical Chemistry Chemical Physics

Teaching Experience

- 2022/2023 Stochastic Hydrology
BSc course
Lecturer · Instructor · Examiner
- 2021/2022 Applied Environmental Statistics
BSc course
Instructor · Examiner
- 2021/2022 Earth System Sciences
BSc course
Lecturer · Instructor · Examiner
- 2021/2022 Presentation of Environmental Data
MSc course
Lecturer · Instructor
- 2020/2021 Earth System Sciences
BSc course
Lecturer · Instructor