Stanford

Marcus Nobrega Gomes Jr

Postdoctoral Scholar, Earth System Science

Curriculum Vitae available Online

Bio

BIO

I am a hydrologist focused on process understanding via numerical modeling to predict natural hazards impacts resulting of floods, droughts, and wildfires. My postdoctoral research at Stanford aims to cross-correlate high-resolution flood maps derived from fluid dynamical models with extensive medical records and evaluate whether a causal relation exists. My research interests are wide and vary from hillslope hydrology, hydrodynamics, pollutant transport and fate, remote sensing, data assimilation, green infrastructure, control of cyber-physical systems, dynamical systems, climate change impacts, and numerical model development for high performance computing. I have a background in civil and environmental engineering, with graduate studies in hydrology and hydrodynamics/hydraulics.

HONORS AND AWARDS

- Best PhD Dissertation, University of Sao Paulo (2024)
- Best Paper Award, Latin American Hydraulic Congress (2022)

PROFESSIONAL EDUCATION

- Postdoc, University of Arizona - Hydrology and Atmospheric Sciences , Hydrology (2025)
- PhD, University of Sao Paulo - Hydraulic and Sanitation Engineering , Hydrology (2023)
- MSc, University of Sao Paulo - Hydraulic and Sanitation Engineering , Hydrology (2020)
- BSc, State University of Maringa , Civil Engineering (2018)

STANFORD ADVISORS

- Steven Gorelick, Postdoctoral Faculty Sponsor

LINKS

- Personal Website: https://marcusnobrega-eng.github.io/profile/
- ORCID: https://orcid.org/0000-0002-8250-8195
- Google Scholar: https://scholar.google.com/citations?user=Ls-Nj0YAAAAJ&hl=en
- ResearchGate: https://www.researchgate.net/profile/Marcus-Gomes-Jr?ev=hdr_xprf

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

By recreating high-resolution flood maps for the last 50 years in California, my research aims to cross-correlate flood hazard maps with medical records to investigate whether a causal relation exists.