

# GOOGLE EARTH ENGINE AS A TOOL FOR CLIMATE STUDIES IN THE BRAZILIAN AMAZON

December 1 | 3:30pm-4:30pm | Storm Hall 31

Climate change poses a significant threat to the delicate ecosystems of the Brazilian Amazon, impacting its biodiversity, hydrology, and the livelihoods of millions of people. Understanding and monitoring climate patterns, particularly precipitation and temperature, is crucial for effective climate change mitigation and adaptation strategies in this region.

We will explore the potential of Google Earth Engine (GEE) as a powerful tool for collecting and analysing data for climate science, with a focus on the Brazilian Amazon. GEE, a cloud-based geospatial platform developed by Google, offers access to a vast archive of satellite imagery and environmental datasets, enabling researchers to perform large-scale analyses with unprecedented efficiency and accuracy. It can serve as a pivotal tool for climate research in the Brazilian Amazon.

Harnessing the power of GEE's geospatial analysis capabilities, researchers can contribute to a deeper understanding of climate change in this critical region, ultimately aiding in the development of informed policies and conservation strategies.



Dr. Rodrigo Moreira is a spatial data scientist who transforms multisensor (optical and radar) remote sensing products and census data into spatial information to answer complex environmental problems related to climate science, forest fragmentation, water resources and public health. Adjunct Professor at the Department of Environmental Engineering at the Federal University of Rondônia, promoting quality public education and popularization of science. Coordinator of the Laboratory of Geomatics and Statistics (LABGET - UNIR) and leader of the Environmental Engineering Research Group (GPEA - UNIR). Permanent Professor at the Environmental Sciences Graduate Program - UNIR. Postdoctoral research in progress at San Diego State University - USA, with a fellowship from the Behner Stiefel Center of Brazilian Studies. Post-Doctorate in Natural Resources - UFMS (2020). PhD in Environmental Engineering Sciences - EESC/USP (2017) with a sandwich period at the University of Michigan - USA between 2016 and 2017. Master in Agricultural Sciences (2014), Environmental Sanitarian (2011) and Environmental Manager (2013) by IFGoiano - Campus Rio Verde.

