



Remote Sensing and Data Assimilation of the Terrestrial Water Cycle: Applications

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Abstract:

The goal of Data assimilation is to provide a better estimate of the environmental states than either models or observations could individually do. This presentation will focus on benefits, challenges and applications of recent land surface data assimilation research efforts targeted at improving soil moisture, groundwater, and terrestrial water storage hydrological states using gravimetry observations from the GRACE and GRACE-FO missions.

Speaker Bio: Dr. Girotto is an Assistant Professor in the department of Environmental Science and Policy Management at UC Berkeley. My research merges cutting-edge space technology and remotely-sensed observations of the earth with state-of-the-art models for the purpose of improving our scientific knowledge about variability and change in hydrologic cycles. In particular, my research focuses on snow, soil moisture, and groundwater hydrology. After earning my PhD in civil and environmental engineering at the University of California, Los Angeles, I have worked as a research scientist in the earth science division of the NASA Goddard Space Flight Center in Greenbelt, MD.