IEEE METROPOLITAN LOS ANGELES AND COASTAL SECTION GEOSCIENCE AND REMOTE SENSING SOCIETY (GRSS) CHAPTER

Earth System Science from Space: Lessons Learned

Dr. Mary Morris, Technologist
Jet Propulsion Laboratory, California Institute of Technology

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Over Zoom at https://tinyurl.com/mls-grss-talk-08-13

The IEEE MLA/Coastal GRSS Joint Chapter Special Lecture Event

Earth science includes many different disciplines that come together to help us understand our planet as a whole system. While ground-based observations are valuable, studying Earth from space gives us the most comprehensive view. For example, satellites allow us to follow water as it moves through the hydrosphere by measuring soil moisture, atmospheric moisture, precipitation, and inland water. No single sensor can capture everything, and each remote sensing method has its own strengths and limitations. As remote sensing scientists and engineers, we continually develop new techniques, design new missions, and combine data from multiple platforms to improve our understanding of Earth as a system. This presentation will share lessons learned from NASA Earth science missions and highlight ideas for future directions.

Dr. Mary Morris is a member of the Microwave Instrument Science group at the Jet Propulsion Laboratory. Her research interests lie at the intersection of microwave remote sensing and Earth system science, with particular expertise in microwave radiometry and GNSS-R. She is currently a member of NASA's Cyclone Global Navigation Satellite Syst em (CYGNSS) science team, NASA's Soil Moisture Active Passive (SMAP) science team, the Compact Ocean Wind Vector Radiometer (COWVR) instrument science team, and is the instrument scientist for the Dynamic Microwave Radiometer (DMR) on the INvestigation of Convective UpdraftS (INCUS) mission. She holds a B.S. in Meteorology from The Pennsylvania State University, and a M.S. and Ph.D. in Atmospheric Science from the University of Michigan.

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