Advanced Webinar: Forest Mapping and Monitoring with SAR Data

Tuesdays and Thursdays, May 12 - May 21, 2020

11:00-13:00 EDT (UTC-4)

This advanced webinar series will introduce participants to SAR time series analysis of forest change using Google Earth Engine (GEE), land cover classification with radar and optical data with GEE, mapping mangroves with SAR, and forest stand height estimation with SAR. Each training will include a theoretical portion describing the use of SAR for landcover mapping as related to the focus of the session followed by a demonstration that will show participants how to access, download, and analyze SAR data for forest mapping and monitoring. These demonstrations will use freely-available, open-source data and software.

Part One: Time Series Analysis of Forest Change
- Introduction to analysis and interpretation of SAR data for forest mapping
- Exercise: Time Series of Forest Change using GEE
- Q&A Session

Part Two: Land Cover Classification with Radar and Optical Data
- Review of the unique attributes of radar and optical data as related to forest mapping and how they can be complementary
- Classification algorithms and improvements with optical imagery
- Exercise: Land Cover Classification with Radar and Optical using GEE
- Q&A Session

Part Three: Mangrove Mapping
- Introduction to analysis and interpretation of SAR data for mangrove mapping
- Exercise: Mapping Mangroves with the Sentinel Toolbox
- Q&A Session

Part Four: Forest Stand Height with Guest Speaker Paul Siqueria
- Introduction to the use of SAR data for mapping forest stand height
- Applications and looking forward to NISAR 2022
- Exercise: Estimating Forest Stand Height
- Q&A Session

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