Introduction to Synthetic Aperture Radar for Applications in Terrestrial Environments

Using data from Synthetic Aperture Radar (SAR) satellites to monitor the state and changing conditions of land can be mystifying, even for those experienced in analysis of optical satellite data.

Carleton University's Department of Geography & Environmental Studies, Agriculture and Agri-Food Canada, and Natural Resources Canada have teamed up to deliver a 5-day course which promises to unlock the world of SAR. Upon completion of this training, participants will be equipped with the skills needed to access, pre-process and analyze SAR data. The course interweaves lectures with hands-on labs.

Course Location: **Carleton University Loeb Building A200 (1125 Colonel By Drive, Ottawa, ON K1S 5B6)**
Dates: **August 12-16, 2019**

Course content:
SAR Basics: Understanding polarization, frequency, incident angle and Matrix Algebra for Geographers
Where are the data? Accessing SAR data and knowing what to order
SAR Polarimetry: Unlocking the power of polarimetry
What's SNAP? Using SNAP software for SAR processing
SAR system characteristics and the target: Applying the right data in the right way
What's That? The SAR Trivia Game
Interferometric SAR Cool applications of InSAR
SAR processing: Leading users through step by step pre-processing of SAR
Case studies: Processing SAR data for crop classification and soil moisture estimation
Prerequisites: Participants should have a base understanding of remote sensing and image processing.
Previous exposure to SAR is helpful, but not mandatory.
Target audience: The course material will be broadly applicable to land application users.

https://carleton.ca/geography/introduction-to-synthetic-aperture-radar-terrestrial/

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