Pursuit: Expanding Access to Data-intensive Remote Sensing Algorithms through Collaboration with the Socio-Environmental Science Research Community

Time of Event:
Wednesday, March 28, 2018 - 09:00 to Friday, March 30, 2018 - 17:00

"Expanding Access to Data-intensive Remote Sensing Algorithms through Collaboration with the Socio-Environmental Science Research Community"

This is a closed meeting for a funded group of visiting scholars.

Protected ecosystems, temperate zones, and wealthier countries receive a disproportionate amount of research attention. Fragmented landscapes, tropical biomes, and developing countries, meanwhile, are routinely overlooked despite their greater coverage of the Earth’s surface, extreme biodiversity, and critical ecosystem services. Satellite remote sensing can be used to bolster understanding of socio-environmental systems within understudied regions. However, persistent cloud cover, particularly in the tropics, limits the utility of satellite-based landscape monitoring. Moreover, the socio-environmental research community, trained in field-based or qualitative methods, have rarely adopted remote sensing approaches due to data/computational complexity as well as traditional disciplinary isolation.

In the proposed Pursuit, we seek to overcome these long-standing, enviro-climatic and disciplinary limitations by convening a diverse group of interdisciplinary, socio-environmental researchers with ongoing projects in understudied regions. We have developed a cloud-resilient remote sensing algorithm (“NITA”) to distill dense time series of satellite imagery into metrics of protracted (e.g., drought) and acute (e.g., forest clearing) land-cover change. Socio-environmental researchers have voiced interest in implementing NITA but presently it is only available as a Matlab prototype and may not optimally satisfy the needs articulated by this diverse community. Thus, we propose this data-intensive SESYNC Pursuit to: 1) Refine NITA through collaboration with the SES community and SESYNC data scientists; 2) Broaden the reach of the algorithm by transitioning to open-source code; and 3) Implement NITA with invited participants to augment research coverage in difficult-to-access areas.

To learn more about this Pursuit, click here [1].

Event type:
Project Meeting

Event Attendance:
Private Working Group

Links