Convener:

Ostapowicz K., *Institute of Geography and Spatial Management Jagiellonian University, Kraków; Poland & Department of Environmental Science, Policy & Management University of California, Berkeley; USA*

Title:

Advances in Earth Observations for sustainable development in mountainous regions

Session description:

Mountains cover 25 percent of the earth's land surface and are home to one tenth of the world's population. Moreover mountains host about one quarter of all terrestrial biodiversity and half of the world's biodiversity hot spots. Their diversity leads to exceptional flora and fauna and the unique cultural variety of people, making mountains particularly important spots for sustainable development efforts which require among others continuous environment monitoring and assessment.

Remote sensing provides a unique perspective on what is happening on the Earth, therefore, plays an important role in environment monitoring and assessment including mountains areas like the Carpathians. Earth observation needs for ecosystems in the mountains constantly changing but still include accurate and continuous environment monitoring and assessment using both in situ and remote sensing observations to observe and evaluate environmental changes and better understand coupled natural and human systems for among others better sustainable development.

The session is aiming to cover the most recent advances in techniques and algorithms to process remotely sensed information for suitable development of mountainous regions including the Carpathians. Welcomed contributions include among others (1) developments in Earth observation Data Cubes use, (2) improvements in data fusion techniques, (3) novel use of high to very-high resolution Earth observation data, and (4) advances in cloud-based computing.

Papers from this session which will cover topics related to remote sensing and biodiversity or conservation can be part of Remote Sensing journal special issue:

https://www.mdpi.com/journal/remotesensing/special_issues/BCMPR