



12th IAPR International Workshop on Pattern Recognition in Remote Sensing 2022 (PRRS)

The 2022 edition of PRRS was held in Montreal, Canada, in conjunction with the 25th International Conference on Pattern Recognition (<https://www.icpr2022.com/>). The workshop was sponsored by the International Association for Pattern Recognition (IAPR), ESA Phi-Lab and the International Society for Photogrammetry and Remote Sensing (ISPRS). The organizing team consisted of Ribana Roscher (University of Bonn and Research Center Jülich, WG II/4), Charlotte Pelletier (Université Bretagne Sud, WG II/5), and Sylvain Lobry (Paris Descartes University).

The workshop brought together researchers from both pattern recognition and remote sensing, with emphasis on the application of pattern recognition methods to remotely sensed data. The steady progress in the development of new remote sensing devices and remote sensing technology has led to ever-increasing data and new challenges. Thus, a need arises to apply the latest methods of machine learning and pattern recognition for automated analysis of this kind of data. This workshop provided an ideal forum for spreading and exchanging the latest experiences of international researchers.

This year, two keynotes were given that addressed current challenges in remote sensing. One keynote was given by Prof. Elif Sertel (Istanbul Technical University) about 'Earth Observation Data for Geospatial Artificial Intelligence' and the other was given by Claudia Paris (University of Twente) with the title 'The Scarcity of Labels for Satellite Images: Opportunity and Challenges of Multi-source Geo-tagged Data'. The papers were presented in three sessions: 'Learning with Multiple Models and Inputs', 'Analyzing and Interpreting SAR Imagery', and 'Semantic Segmentation and Detection'. The papers covered a wide range of remote sensing application areas, including solar wind prediction, sea ice motion estimation, sea ice classification, road segmentation, tree detection, and utility network segmentation. The type of data considered by the papers varies from different sensors (optical and radar) to distinct remote sensing platforms (satellites, airborne). Overall, the contributions of the nine accepted papers are in terms of new machine learning frameworks and novel neural network architectures. This includes, for example, novel and recent approaches for uncertainty quantification, few-shot learning, or self-training. The next workshop is planned for 2024 in Kolkata, in conjunction with ICPR 2024. We invite everyone who is interested to participate and to submit contributions.