Heterogeneous Data and Large Representation Models in Science

Contribution ID: **12**   Type: **Oral presentation**

Keynote Address: RELEO - Representation Learning for Earth Observation

Wednesday 2 October 2024 09:00 (45 minutes)

This talk will introduce the RELEO (REpresentation Learning for Earth Observation) project (2024-2028), a research chair of the Artificial and Natural Intelligence Toulouse Institute (ANITI). RELEO aims at developing new self-supervised representation learning methods to produce semantically meaningful probabilistic representations from high-dimensional multi-modal EO data. The originality of the approach lies on the use of prior knowledge from physical models into Deep Learning and thus proposing advances in uncertainty estimation and interpretability. Recent results will be presented: physics-constrained deep learning for biophysical parameter retrieval from satellite optical imagery and spectro-spatio-temporal encoders for large representation models for irregular and unaligned satellite image time series.

Contribution length

Long

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