



## Session 01

### Machine learning solutions to seismic problems: Joint Session ESC-SSA

Conveners:

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In the past few years, there has been a resurgence in the application of machine learning techniques to seismological problems, leveraging state-of-the-art advancements in machine learning algorithms. Recent examples of seismic processing that attest to the massive potential of these techniques include automated event detection and association, denoising, phase picking, polarity determination, magnitude estimation, and location determination. Further, unsupervised learning techniques are improving the ability to extract novel information from continuous waveform data. Many of these applications have leveraged the enormous datasets collected by seismologists over the last decades, yet many more remain untapped, opening the way to the development of new machine learning techniques and applications. In this session we invite contributions discussing the exploration and application of machine learning in all seismic problems, and invite contributors to discuss successes, challenges, and lessons learned in the application of these developing technologies.