

Session title

Big Data and Machine Learning Applications in Hydrogeology

Description

This session welcomes research into the use of big data and machine-learning techniques to address complex problems in hydrogeology that were previously intractable. Rationale: With the proliferation of increasingly large datasets and greater access to computational resources, researchers can address previously intractable questions in hydrogeology. Machine-learning (ML) techniques can leverage large datasets and computing capabilities and have shown the ability to add deeper insight into hydrogeologic processes. In this session we welcome topics including but not limited to, (1) the development and use of big data to address complex problems in hydrogeology; (2) the application of ML to complex hydrogeologic problems; (3) the use of ML to understand systems involving multiple complex processes; and (4) the use of ML to extrapolate from process-based modeling to larger spatial extents.

Keywords

machine learning, hydrogeology, big data, modeling

Session Chair

Katherine Knierim

Conveners

Paul Stackelberg

Mason Stahl

Athena Nghiem