*Special Session Title:*

# Graphs for Structural Engineering

## Organizers


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## Abstract

Graphs have long been used for representing complex data structures and, as such, provide a natural framework for modeling the complex properties and interactions found in civil engineering structures. The recent development of a population-based approach within the field of Structural Health Monitoring highlights how graphs can be used to model heterogeneous civil structures. Furthermore, by combining Machine Learning and Network Science, these approaches can provide a measure of similarity in structures.

This special session focuses on gathering contributions in accordance with the application of graphs, networks, and associated machine learning techniques in the field of structural engineering.

Contents of interest include, but are not limited to, the following topics:

- Graph Neural Networks
- Graph Machine Learning
- Network Science
- Graph Theory
- Knowledge Graphs
- Graph Embeddings of civil structures
- Irreducible Element models