

## **AI AND ML TECHNIQUES IN COMPUTATIONAL MECHANICS**

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### **ABSTRACT**

Artificial intelligence and machine learning have burst onto the scene in our discipline, causing a revolution never before seen in its short history. Neural simulators and model reduction techniques, both linear and non-linear, scientific machine learning, etc., are now part of our everyday vocabulary.

In this session, we aim to bring together the community working in this field and discuss the latest developments, along with the future that awaits us.

We welcome contributions on topics such as (but not limited to)

- Physics-informed ML
- Discovery of constitutive laws by means of ML
- Model Order Reduction
- Neural simulators
- Neural Operators
- Generative AI
- Reinforcement learning
- ...