Special Issue

Machine Learning and Artificial Intelligence in Fluid Mechanics

Message from the Guest Editor

Fluid mechanics research has evolved during the past few years, towards the direction of exploiting massive amounts of data generated from knowledge gathered insofar, either from experimental measurements or simulations. The application of novel machine learning (ML) techniques is currently the latest trend in the field, and has almost reached standardization. Computational boosting, advanced turbulence modeling, bridging among scales, hybrid simulation schemes, and flow feature extraction are concepts that scientists and engineers must deal with. We encourage authors to submit works addressing topics including, but not limited to, physics-inspired neural networks, intelligent fluid dynamics, scientific machine learning, explainable and trustworthy artificial intelligence, symbolic regression and evolutionary algorithms, unsupervised machine learning and clustering, with a focus on fluid mechanics applications.

Guest Editor

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Deadline for manuscript submissions

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