non-intrusive reduced order modeling via deep learning strategies

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ABSTRACT

Deep learning is becoming an efficient way to implement non-intrusive reduced order modeling strategies. For instance, neural networks in conjuntion with proper ortogonal decomposition (POD) has been used for emulating both canonical problems and geophysical flows [1, 2]. Some pioneering theoretical work has also been recently carried out using the Mori-Zwanzig formalism [3]. In this MS, we invite talks that propose innovative ideas and solutions for constructing reduced-order modeling strategies based on deep learning frameworks, namely neural networks. The contributions should contain a novel way of approaching the problem of non-intrusive order modeling via neural networks and/or show novel application areas and results. We also welcome theoretical contributions that build on mathematical formalism able to bridge practical finding with underlying knowledge.

**REFERENCES**

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