



Advances in Information Theory, Data Assimilation and Stochastics for Dynamical Systems

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Message from the Guest Editor

Dear Colleagues,

Accurate and robust dynamical predictions of nonlinear, multi-scale and/or high-dimensional dynamical systems are invariably crucial in many theoretical and operational settings. Despite the widespread use and many successes of physics-informed neural networks, the fundamental problem of sensitivity to the initial condition in the dynamical prediction of complex dynamics cannot be overcome using any dynamical model alone. The need for data assimilation in dynamic predictions has been recognized long ago.

This Special Issue on "Advances in Information Theory, Data Assimilation and Stochastics for Dynamical Systems" will serve as a locus for gathering recent theoretical developments and applications on the interface between these three topical themes. We invite both theory- and application-focused research articles, as well as a small number of review style works, to make this Special Issue a relatively self-contained and timely contribution to this rapidly evolving subject.

Dr. Michal Branicki
Guest Editor





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Message from the Editor-in-Chief

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