Entropy in Model Reduction

Guest Editor:

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Deadline for manuscript submissions:
closed (28 February 2010)

Message from the Guest Editor

Dear Colleagues,

In the practice of modeling of complex systems tools are necessary for the construction of models which have appropriate complexity, accuracy and do not violate the basic laws. Methods based on entropy allow us to reduce the model's complexity. At the same time, entropy based methods give the possibility to produce models which follow some basic principles: do not produce information from nothing, satisfy the second law of thermodynamics and have other attractive properties. The area of applications of these methods is enormously wide: from physics and chemistry to biology, psychology, sociology and economics.

In this volume we invite papers which propose, review and analyse entropic methods for model reduction and for analysis of reduced models. Works with various applications of entropic methods for model reduction are also welcome.

Prof. Dr. Alexander Gorban
Guest Editor

mdpi.com/si/533

Special Issue

Editor-in-Chief

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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