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Theory and Applications of Hyperbolic Diffusion and Shannon Entropy

Guest Editor:

Prof. Dr. Manuel O. Cáceres

Comisión Nacional de Energía Atómica (CNEA), Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Centro Atómico Bariloche and Instituto Balseiro, Universidad Nacional de Cuyo, Av. E. Bustillo 9500, Bariloche CP8400, Argentina

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Message from the Guest Editor

The application of information theory to study these diffusion-like systems is an open statistics problem. Further progress on this matter calls for new statistical techniques based on the Shannon entropy theory, as well as for an improved understanding of the hyperbolic diffusion problem and the waves in the stochastic telegrapher's equation for complex systems. Contributions addressing any of these issues are very welcome.

This Special Issue aims to be a forum for the presentation of improved techniques for these kinds of finite-velocity diffusion-like systems. The analysis and interpretation of the hyperbolic diffusion using statistical tools based on the Shannon information theory fall within the scope of this Special Issue.

The Special Issue of interest includes, but are not limited to:

- finite-velocity diffusion
- wave telegrapher's equation
- stochastic and random media
- statistics information theory
- complex transport
- random waves and dispersion
- physics
- chemistry
- biology
- earth sciences
- social science
 Specialsue





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Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

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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Entropy Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/entropy entropy@mdpi.com %@Entropy_MDPI