Special Issue

Entropy and Scale-Dependence in Urban Modelling

Message from the Guest Editors

Cities are complex systems that require resources to function. They are maintained in more or less stable states by exchanging entropy across their boundaries: Relatively low entropy resources are imported, processed and higher entropy wastes are exported. Entropy, as originally developed by Boltzmann, measures all microscopic-scale configurations of the universe, and in combination with the second law of thermodynamics, provides a robust metric for assessing universal irreversibility, and therefore future sustainability. This Special Issue focuses on the application of entropy in modelling and evaluating urbanisation at multiple scales. The aim is to clarify the boundaries of applicability of thermodynamic and information entropies, to demonstrate their utility and to identify promising avenues for future exploration.

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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.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. Entropy is inviting innovative and insightful contributions. Please consider Entropy as an exceptional home for your manuscript.

Editor-in-Chief

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