Entropic Aspects Arising from Geometric Descriptions of Physical Phenomena

Message from the Guest Editor

Dear Colleagues,

The role of geometric methods in modern physical science is very important from applied and foundational perspectives alike. The concepts of complexity, entanglement, phase transitions, and quantum algorithms are examples of physical phenomena that may be observed in cleverly prepared experimental settings whose formal description and essential conceptual understanding can be enhanced by means of geometric concepts. Explorations of the myriad connections among entropic and geometric quantities present opportunities for further lines of investigation ranging from statistical physics to network science.

The aim of this Special Issue is to advance our geometric and entropic understanding of challenging problems appearing in condensed matter physics, general relativity, network science, quantum computing, and thermodynamics, to include a few research fields. At the same time, we hope to highlight the entropic aspects uncovered by means of the geometric modeling of natural phenomena, including special scenarios covered by either classical or quantum modern theoretical physics.

Dr. Carlo Cafaro
Guest Editor