Special Issue

Geometric Structure of Thermodynamics: Theory and Applications

Message from the Guest Editors

Since the seminal works of J. W. Gibbs dating back to the late 19th century, the geometric structure of thermodynamic state spaces has come to prominence among scientists working on different aspects of mathematical thermodynamics. Later, geometric thermodynamics experienced a renaissance in the 70s of the last century due to the pioneering works of R. Hermann, R. Mrugała, and F. Weinhold. However, although several successful theories have been developed since then, these results have remained rather isolated and have not led to the appearance of a unified framework for the study of geometric foundations of thermodynamic systems. This issue aims at bridging this gap and providing a platform for a discussion on different aspects of the geometrical structure of thermodynamics and its implications for solving real life problems. We invite research papers and surveys both on theoretical aspects of geometrical thermodynamics and its practical applications.

Guest Editors

Dr. Dmitry Gromov

Department of Mathematics, Faculty of Physics, Mathematics and Optometry, University of Latvia, LV-1586 Rīga, Latvia

Prof. Dr. Alexander Toikka

Department of Chemical Thermodynamics and Kinetics, Institute of Chemistry, St. Petersburg State University, Universitetskiy Prospect, 26, Peterhof, 198504 Saint Petersburg, Russia

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Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
entropy@mdpi.com

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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

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