

Special Issue

Recent Trends in Hamiltonian Systems

Message from the Guest Editor

The field of Hamiltonian systems is a vast subject which continues to develop in many different directions. It was historically initiated with Newton's study of two- and three-body systems, progressed through Poincaré's studies into homoclinic behaviour and chaos, and to the present time has seen new advances in integrable systems, functional analytic techniques, normal form computations, bifurcations, variational methods and index theory. Geometric methods and the dynamical systems have been a guiding influence on this topic since the pioneering work of Poincaré and continue to provide an important context for applications to physical systems, especially N-body gravitational dynamics. In this Special Issue, we seek to bring together recent trends with theoretical as well as application-based contributions. It is hoped and intended that this will facilitate a nourishing environment for extended discussions, fostering a deep understanding through collaboration, and pushing in new directions of research into the next decade.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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