Special Issue

Recent Trends on Orthogonal Polynomials: Approximation Theory and Applications

Message from the Guest Editors

Orthogonal polynomials are essential tools for the solution of many problems in the spectral theory of differential and difference equations, Painlevé equations (discrete and continuous versions), numerical methods in quadrature on the real line and the unit circle, as well as cubature formulas on multidimensional domains, with applications ranging from Number Theory to Approximation Theory, Combinatorics to Group representation, integrable systems, random matrices, and linear system theory to signal processing.

The aims of the proposed Special Issue are:

   1. To show some recent trends in the research on orthogonal polynomials, with a special emphasis on their analytic properties and approximation theory;

   2. To emphasize their impact in Mathematical Physics, mainly in integrable systems and Painlevé equations (discrete and continuous cases), as they are strongly related to the coefficients of three term relation, satisfied by a sequence of orthogonal polynomials and time-depending measures supported on the real line.

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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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