

Special Issue

Special Functions and Orthogonal Polynomials: Symmetry and Applications

Message from the Guest Editor

Special functions is an unfortunate denotation for numerous concrete functions playing an important role in various branches of mathematics and applied sciences. Paul Turán is accredited with the authorship of suggestion to call them “useful functions”..... This Special Issue welcomes papers devoted to both the theory and applications of special functions. Emphasis will be placed on hypergeometric and related functions and orthogonal polynomials. The fundamental theory of these functions, such as representations, transformation and summation formulas, asymptotic approximations, inequalities, zeros, monotonicity, and complex analytic properties will be at the focus. The second main theme is orthogonal and multiple orthogonal polynomials; both papers concerned with their concrete families and with general properties are welcome. Furthermore, papers on other topics in both mathematics and sciences, where special functions play an important role, are also cordially invited. Articles of survey nature will also be considered.

Guest Editor

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Deadline for manuscript submissions

closed (15 June 2023)



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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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