Special Issue

Recent Advances in Generalized Inverses and Matrix Theory

Message from the Guest Editor

Generalized inverses are defined in cases when ordinary inverses do not exist, providing solutions to equations, systems of equations, and minimization problems. They play an important role in theoretical and numerical methods of linear algebra and have numerous applications in statistics, econometrics, logistics, electrical network theory, theory of differential and difference equations. Generalized inverses are studied for matrices, quaternion matrices, tensors, dual real matrices, operators on Banach and Hilbert spaces, elements of Banach and C*-algebras, or more generally in rings with or without involution. Partial orders of matrices from generalized inverses also have applications in the theory of linear statistical models. Research areas may include, but are not limited to, the following: generalized inverses with applications; matrix and operator equations; systems of equations and inequalities; matrix and operator decompositions; special types of matrices and operators; minimization problems; quaternion matrix and tensor equations; equations in algebras and rings; partial orders and pre-orders; perturbations; and dual real matrices.

Guest Editor

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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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