Special Issue

Recent Advances in Matrix Generalized Inverses and Applications

Message from the Guest Editor

The theory of generalized inverses forms a cornerstone of modern matrix analysis, with deep connections to operator theory, numerical linear algebra, and a wide array of applications in pure and applied mathematics. Since the early 2010s, numerous new classes of generalized inverses have been introduced and studied within diverse structural and algebraic frameworks, including the core inverse, the inverse along an element, and the (b,c)-Drazin inverse. Subsequent developments have led to further extensions of the core inverse—such as the DMP, core-EP, BT, and WC inverses—as well as alternative generalizations of the group inverse, including the weak group inverse, the generalized group inverse, and, more generally, the m-weak group and m-weak core inverses. This Special Issue in *Axioms* aims to gather recent contributions on the theory, computation, and applications of generalized inverses, matrix orderings, and their extensions to broader algebraic contexts, including operators on Banach and Hilbert spaces, rings, C*-algebras, and tensors.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2025)

Axioms

an Open Access Journal by MDPI

Impact Factor 1.6

mdpi.com/si/241224

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Message from the Editor-in-Chief

Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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