Special Issue

Spectral Graph Theory and the Inverse Eigenvalue Problem of a Graph

Message from the Guest Editors

Spectral Graph Theory is the study of the spectra of certain matrices defined from a given graph, including the adjacency matrix, the Laplacian matrix, and other related matrices. Graph spectra have been studied extensively for more than fifty years. The Inverse Eigenvalue Problem of a Graph seeks to determine information about the possible spectra of the real symmetric matrices whose pattern of nonzero entries is described by a given graph. The special issue of "Spectral Graph Theory and the Inverse Eigenvalue Problem of a Graph" is devoted to a variety of topics in spectral graph theory and the inverse eigenvalue problem of a graph, including but not limited to studying the eigenvalues and eigenvectors of certain graph matrices, minimum rank, maximum nullity and the minimum number of distinct eigenvalues of a graph and their applications. The main aim of this Special Issue is to encourage new theoretical results in spectral graph theory, and the inverse eigenvalue problem of a graph as well as the interaction of spectral graph theory and the inverse eigenvalue problem of a graph with other mathematical sciences.

Guest Editors

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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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