Special Issue

Big Data and Complex Networks

Message from the Guest Editor

Big data refers to heterogeneous data sets characterized by huge volume, diverse types, complex interaction relations and dynamic changes. Numerous studies treat problems with big data as problems of typical complex systems. As an effective model of complex systems, complex networks that abstract individuals as nodes and the relationships between individuals as links effectively depict the system operation mechanisms. Recently, wide attention has been devoted to solving big data problems based on complex networks, but there are still gaps to be filled, such as how to realize mapping between big data and complex network space and how to mathematically describe the relationship between layers of complex network. Hence, this Special Issue focuses on the application of complex network theory in solving problems of big data analysis, so as to provide effective methods for mining the characteristics, laws and mechanisms of big data.

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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