Special Issue on Internet and Network Economics

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Special Issue editors

This special issue of *Internet Mathematics* is dedicated to the Third International Workshop on Internet and Network Economics (WINE 2007), held at the University of California at San Diego, CA, on December 12–14, 2007. The workshop aims to provide a forum in the emerging research area of Internet and network economics for researchers as well as practitioners to exchange innovative ideas and to be aware of each others' efforts and results. This selected volume reflects the growing trend in merging theories, methodologies, and applications in computer science, economics, mathematics, and management sciences for solving problems that arise in Internet technologies, grid computing, and network communication protocols, as well as social economic issues in virtual communities enabled through the World Wide Web.

The talks presented at WINE 2007 showed a focus in topics and a great variation in methodologies dealing with those topics. They included economic equilibrium, fixed-point algorithms, information market, sponsored auction, network economics, mechanism design, social networks, and network games. Those topics have been reflected in the papers in this special issue. Of the papers selected for this issue, we have included, first, work in algorithmic complexity issues of games, for core stability of vertex cover games, the stable roommates problem with globally-ranked pairs, and approximate Nash equilibria; second, work in congestion games, its relationship with two-sided markets, its optimal cost-balancing toll methods, and its pure Nash equilibria in player-specific networks; and, finally, work for general networks, such as network communication payment, approximate mechanisms for graph transversals, and incentive-compatible protocols for interdomain routing with linear utilities.