

Editorial: 2006 Glover-Klingman Prize Winners

We are proud to announce the winners of the Glover-Klingman Prize for the best paper published in *Networks* in 2006. This prize pays tribute to the high quality work at the interface of operations research and computer science pioneered by Fred Glover and Darwin Klingman. However, the award recognizes outstanding work in the general area of network modeling, analysis, and implementation, and is not limited to papers at the OR/CS interface. There were 46 papers published in 2006, and a number of exceptional papers were nominated by our editorial board. The final selection was made by the two of us, after numerous consultations with the editorial board and outside experts.

The winning paper, "Efficiency and Fairness of System-Optimal Routing with User Constraints," appeared in December 2006. The authors, Andreas S. Schultz and Nicolás E. Stier-Moses are to be congratulated for their well-executed contribution to the literature. Each author will receive a cash award and a certificate bearing the following citation:

"Intelligent routing in congested systems is a central concern in modern transportation and telecommunication networks. In both transportation and telecommunication networks, routing decisions are often made in a decentralized fashion by the users of the system (e.g., vehicles in transportation networks, or routers in the case of the Internet). It is well known that a decentralized solution (a user-optimized solution) is costlier than a centralized solution (a system-optimized solution). On the other hand, the user-optimized solution is fair in the sense that all users between the same origin and destination incur the same amount of travel time. The system-optimized solution does not have this fairness property. Consequently, while system-optimized solutions are efficient, they are not enforceable in a decentralized network.

In an earlier paper, the authors and others proposed a *System-Optimal Route Guidance System*. This system aims at optimizing the efficiency of a traffic flow, while ensuring that all users are treated fairly. In this paper, Schulz and Stier-Moses study the theoretical properties of this system. Their elegant mathematical analysis shows that the solutions obtained by their constrained system are not much more expensive than the (unconstrained) system-optimized solution and yet they ensure a level of fairness among users which is not achieved by the system-optimized solution. The results have significant practical implications."

Once again, we express our appreciation to Dr. James Kelly at OptTek Systems, Inc. (Boulder, Colorado) and Dr. Larry Levy at RouteSmart Technologies, Inc. (Columbia, Maryland) for their generous financial support. John Wiley & Sons has also contributed financial and administrative support to this project. We look forward to awarding the Glover-Klingman Prize next year.

Bruce L. Golden

Douglas R. Shier