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**CONSTANTINOS DASKALAKIS WINS ACM AWARD FOR ADVANCES IN ANALYZING  
BEHAVIOR IN CONFLICT SITUATIONS**

**His Research Results Characterize the Complexity of Interactions in Markets, Social Networks, and  
Online Systems**

**NEW YORK**, May 14, 2009 – Constantinos Daskalakis has won the [2008 Doctoral Dissertation Award](http://awards.acm.org/doctoral_dissertation/) [http://awards.acm.org/doctoral\\_dissertation/](http://awards.acm.org/doctoral_dissertation/) from ACM (the Association for Computing Machinery) for advancing our understanding of behavior in complex networks of interacting individuals, such as those enabled and created by the Internet. His dissertation, entitled “The Complexity of Nash Equilibria,” provides a novel, algorithmic perspective on Game Theory and the concept of the Nash equilibrium. Daskalakis, who was nominated by the University of California, Berkeley, is a postdoctoral researcher at Microsoft Research New England. He will receive the Doctoral Dissertation Award and its \$20,000 prize at the annual ACM Awards Banquet on June 27, in San Diego, CA. Financial sponsorship of this award is provided by Google Inc.

Daskalakis’s dissertation examines whether rational, self-interested individuals can arrive, through their interactions, at a state where no single one of them would be better off switching strategies unless others did so as well. Such a state is called a Nash equilibrium, in honor of John Nash, who defined it, and is traditionally used in Game Theory as a rigorous way of predicting the behavior of people in conflict situations. Daskalakis showed that in complex systems the Nash equilibrium is computationally unachievable in some cases. This result answers an algorithmic question that has been open since John Nash’s definition of the concept in the 1950s. It also suggests that the Nash equilibrium may not be an accurate prediction of behavior in all situations. Daskalakis’s research emphasizes the need for new, computationally meaningful methods for modeling strategic behavior in complex systems such as those encountered in financial markets, online systems, and social networks.

A graduate of the National Technical University of Athens with a degree in electrical and computer engineering, Daskalakis received his Ph.D. degree in computer science from the University of California, Berkeley. Beginning in July, he will be an assistant professor in the Electrical Engineering and Computer Science department of Massachusetts Institute of Technology, and a member of MIT’s Computer Science and Artificial Intelligence Laboratory.

Two researchers will share an Honorable Mention for the 2008 ACM Doctoral Dissertation Award, which carries a \$10,000 prize, with financial sponsorship provided by Google.

- Derek Hoiem, nominated by Carnegie Mellon University for his dissertation “Seeing the World behind the Image: Spatial Layout for 3D Scene Understanding,” is an assistant professor in computer science at the University of Illinois at Urbana-Champaign.
- Sachin Katti, nominated by the Massachusetts Institute of Technology for his dissertation “Network Coded Wireless Architecture,” is a post-doctoral researcher at the International Computer Science Institute, Berkeley, CA.

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*ACM, the Association for Computing Machinery [www.acm.org](http://www.acm.org), is the world’s largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field’s challenges. ACM strengthens the computing profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.*

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