Newsletter

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INFORMS Optimization Society 2008 Conference "Theory, Computation, and Emerging Applications" -- Call for papers

Optimization has long been a cornerstone for advancement of various industrial, government, and military applications. To highlight and support the role of optimization in current advances, and to promote interaction between researchers, the INFORMS Optimization Society launched a biannual conference starting in 2006. The 2006 Conference was held in San Antonio on February 3-5, 2006, and focused on "Optimization and HealthCare." The event featured plenary speakers Arkadi Nemirovski, Ronald Rardin, and Sorin Istrail, and had over one hundred attendees.

The themes for the INFORMS Optimization Conference 2008 are theory, computation and emerging applications.

Details about the conference are listed below.

Date: March 14 - March 16, 2008
Sponsor: INFORMS Optimization Society
Place: Atlanta, Georgia

Web: http://www2.isye.gatech.edu/opt2008
Confirmed Keynote Speaker
Robert E. Bixby
ILOG and Rice University

Confirmed Plenary Speakers
Egon Balas
Carnegie Mellon University
Brenda Dietrich
INFORMS President and IBM Research
Yurii Nesterov
CORE and Catholic University of Louvain (UCL), Belgium

Program chair
Eva K Lee, Georgia Institute of Technology
Sanjay Mehrotra, Northwestern University

Program Committee
Alper Atamturk, University of California, Berkeley
Garud Iyengar, Columbia University
Hanif Sherali, Virginia Tech
John Birge, University of Chicago
Martin Savelsbergh, Georgia Tech
Panos Pardalos, University of Florida
Renato Monteiro, Georgia Tech
Ronald Rardin, University of Arkansas
Tamas Terlaky, McMaster University
Yin Zhang, Rice University
Yinyu Ye, Stanford University

Contributed Paper Program Chair
Shabbir Ahmed, Georgia Tech

Local Logistic Chair
Donna Llewellyn, Georgia Tech

Local Administrative Manager
Harry Sharp, Georgia Tech

Conference Webmaster
Kapil Gupta, Georgia Tech

Please contact program chairs, or appropriate Optimization Society Vice Chairs for organizing invited sessions. The list of Vice Chairs can be found on the last page of this newsletter.

INFORMS Optimization Society Award Winners in 2006

2006 Farkas Prize Winner

Yinyu Ye
Department of Management Science & Engineering, Stanford University.
-- For his numerous fundamental contributions to the theory, software and novel applications of optimization.

Prize Citation
 *"*Yinyu Ye has made several fundamental contributions to the theory of Interior Point Methods (IPMs), such as the first $O(n^3L)$ complexity potential reduction algorithm, the self-dual embedding model, the Mizuno-Todd-Ye predictor-corrector algorithm, the Vavasis-Ye IPM, where the

complexity bound is independent of the right-hand side of the constraints and the objective coefficient vector; for his contribution to advancing computational methods, including the first implementation of the embedding model that is now part of many IPM software applications, for developing efficient IPMs for Geometric Programming (GP) and also for the DSPDP dual IPM based semi-definite optimization software package; for his influential contributions to approximation results for non-convex quadratic and combinatorial optimization problems, in particular for the development of a highly efficient approximation algorithm for the facility location problem, where the bound remains the best to date; for his deep, influential results in solving engineering and econometric problems, including novel complexity results for the Markov decision problem, and where his algorithm has become a major tool for solving GP problems arising in electrical engineering/communication systems, analog and digital circuit design, and many other engineering optimization problems."

2006 Young Researcher Prize Winner

Emre Alper Yildirim
Department of Industrial Engineering, Bilkent University, Ankara, Turkey
 -- For his paper "On the Minimum Volume Covering Ellipsoid of Ellipsoids", SIAM J. Optimization 17 (2006) 621-641,

Prize Citation
"The paper presents a novel polynomial-time algorithm for computing a (1+e) approximation of the minimum-volume covering ellipsoid of the convex hull of a given finite number of ellipsoids. The problem of finding such a covering arises in a variety of applications such as computational geometry, computer graphics, robotics, and nuclear engineering, where high-efficiency computation requires replacing complex objects with simpler representations. In this paper, the author

generalizes previous results on covering a finite set of points by developing an innovative semi-definite programming formulation that leads to the surprising result that the asymptotic complexity of computing the ellipsoid-covering is the same as that for the point-covering, despite the very different topologies of these sets. With a fluid style and clear presentation, the paper also illustrates potential extensions to other input sets and forms a solid foundation for further studies in this area."

Call for nominations for 2007 Student Paper Prize

Purpose
The INFORMS Optimization Society Student Paper Prize, established in 2006 and administered by the Optimization Society (OS) within the Institute for Operations Research and Management Science (INFORMS), is awarded bi-annually (in odd years) at the INFORMS Fall National Meeting to one or more students for the most outstanding paper in optimization that is submitted to and received, or published in a refereed professional journal no more than three years before the closing date of nomination. The nominee/applicant must be a student on the first of January of the year of application/nomination. The prize serves as an esteemed recognition of promising students who are looking forward towards an academic or industrial career.

The award includes a cash prize of US$1,000 and a citation certificate. The award winners will be invited to give a fifteen minute presentation on the winning paper at the Optimization Society Business Meeting held during the INFORMS Fall National Meeting in the year the award is made. It is expected that the winners will be responsible for the travel expenses to present the paper at the INFORMS meeting.

Eligibility

The author(s) and the paper must satisfy the following four conditions to be eligible for the prize:

a) The paper must either be published in a refereed professional journal no more than three years before the closing date of nomination, or be submitted to, and received by, a refereed professional journal no more than three years before the closing date of nomination.
b) The nominee/applicant must be a student on the first of January of the year of application/nomination.
c) Except a senior author (who is possibly an advisor to the student), all other authors must have been awarded their terminal degree within three years of the closing date of nomination. The senior author should send a letter indicating that the majority of the work was performed by the nominated student, and that he/she only contributed minor editorial work on the paper.
d) The topic of the paper must belong to the field of optimization in its broadest sense.

A letter of nomination/application should be sent (preferably by email) on or before this year's closing date of **August 15 2007** to the Society Secretary, Eva Lee at evakylee@isye.gatech.edu

Optimization Prize for Young Researchers (awarded in even years)

Purpose
The Optimization Prize for Young Researchers, established in 1998 and administered by the Optimization Society (OS) within the Institute for Operations Research and Management Science (INFORMS), is awarded bi-annually at the INFORMS Fall National Meeting to one or more young researchers for the most outstanding paper in optimization that is submitted to and accepted, or published in a refereed professional journal. The prize serves as an esteemed recognition of promising colleagues who are at the

beginning of their academic or industrial career.

The award includes a cash prize of US$1,000 and a citation certificate. The award winners will be invited to give a fifteen minute presentation on the winning paper at the Optimization Society Business Meeting held during the INFORMS Fall National Meeting in the year the award is made. It is expected that the winners will be responsible for the travel expenses to present the paper at the INFORMS meeting.

Past winners of this prize are listed at: http://www.informs.org/article.php?id=689

Eligibility
The authors and paper must satisfy the following four conditions to be eligible for the prize:

(**a**) the paper must either be published in a refereed professional journal no more than FOUR years before the closing date of nomination, or be submitted to and accepted by a refereed professional journal no more than FOUR years before the closing date of nomination;
(**b**) all authors must have been awarded their terminal degree within EIGHT years of the closing date of nomination;
(**c**) the topic of the paper must belong to the field of optimization in its broadest sense;
(**d**) the prize may be awarded only once in lifetime to any individual.

The Farkas Prize of the Optimization Society (awarded in even years)

Purpose
The Farkas Prize of the INFORMS Optimization Society was established in 2006, and is administered by the Optimization Society (OS) within INFORMS. It is awarded bi-annually at the INFORMS Fall National Meeting

Eligibility
The author(s) and the contribution must satisfy the following four conditions to be eligible for the prize:

(**a**) The Farkas Prize is awarded for the most significant contribution to the field of optimization by a researcher, or a team of researchers. The "contribution" may be a published or submitted and accepted paper, a series of papers, a book, a monograph or software.
(**b**) the author(s) must have been awarded their terminal degree within 20 years of the closing date of nomination;
(**c**) the topic of the contribution must belong to the field of optimization in its broadest sense.
(**d**) the prize may be awarded only once in lifetime to any individual.

Judging of the contributions will be based primarily on their quality, significance, impact and originality.

Optimization Society Officers

Chair: Tamas Terlaky, 2004-07
Chair Elect: John R. Birge, 2005-2007
Secretary/Treasurer: Eva K Lee, 2006-2008

Vice Chairs:
--Computational Optimization and Software: Sanjay Mehrotra, 2006-2007
--Integer Programming: Jean-Philippe P. Richard, 2006-2007
--Linear Programming and Complementarity: Mihai Anitescu, 2006-2007
--Global Optimization: Ignacio Grossman 2007-2008.
--Nonlinear Programming: Michael Friedlander 2007-2008.
--Stochastic Programming: Shabbir Ahmed 2007-2008.

Newsletter Editor: Eva K Lee, 2007-2008
Design assistants: Kyungduck Cha, Kapil Gupta.