

INFORMS OPTIMIZATION SOCIETY Business Meeting - October 11, 2009

AGENDA

- 1) Elections (Nick Sahinidis)
- 2) Society Conference in 2010 (Panos Pardalos)
- 3) Treasurer's report (Marina Epelman)
- 4) Discussion: Prizes (Nick Sahinidis)
- 5) Student Paper Prize award announcement (Shabbir Ahmed, Committee Chair)
- 6) New business

----- Election results -----

- Continuing officers:
- Nick Sahinidis (Chair through 2010, Most recent past chair 2010-2011), Marina Epelman (Secretary/Treasurer through 2010)
- Vice-chairs (through 2010): Uday Shanbhag (NLP), Lewis Ntaimo (SP)
- Thanks to officers finishing their terms:
- John Birge (Most recent past chair)
- Vice-chairs: Ted Ralphs (Computational optimization/software), Alper Atamturk (IP), Sam Burer (LP and Complementarity), Kamal Jain (Networks)
- Incoming officers
- Jon Lee (Chair elect 2009-2010, Chair 2010-2012)
- Vice chairs (2009-2011): Steven Dirkse (Computational optimization/software), Oktay Gunluk (IP), Miguel Anjos (LP and Complementarity), Mauricio Resende (Networks)

----- Society Conference 2010 -----

- Theme: Energy, Sustainability and Climate Change
- Organized by Panos Pardalos
- Website: <http://www.ise.ufl.edu/cao/esc2010/index.htm>
- Location: University of Florida, Gainesville
- Dates: 26-28 February, 2010
- Abstract submission: 1 to 20 November 2009
- Selected papers in Energy Series (book) and Energy Systems Journal

----- Treasurer's report -----

- 2008: Opening balance \$29,516; Ending balance \$34,156
- 2009: Opening balance \$34,156; balance on 3/31/09 \$40,756 (reflects receipt of most dues payments; most expenses occur in the second half of the year)
- Update since the meeting: balance on 6/30/09 \$41,406
- Working on transferring the balance remaining after the 2008 Optimization Society conference at Georgia Tech to the Society's account.
- Balance in the Society's account available to support the Society Conference, should the need arise.

----- Student Paper Prize award announcement -----

- Prize committee: Shabbir Ahmed (chair), Sam Burer, Jon Lee
- 2009 Prize recipient: Dan Iancu (MIT) for the paper titled "Optimality of Affine Policies \diamond † in Multi-Stage Robust Optimization", co-authored with Dimitris Bertsimas and Pablo Parrilo.
- Farkas Prize committee statement:

The 2009 INFORMS Optimization Society Student Paper Prize is awarded to Dan Iancu of MIT for his paper "Optimality of

"Affine Policies in Multi-Stage Robust Optimization" co-authored with Dimitris Bertsimas and Pablo Parrilo.

Iancu studies a one-dimensional, discrete, linear, finite-horizon, dynamical system, with specified initial state, bounded policies, bounded random disturbances, minimax (worst-case) objective using convex state costs plus linear control costs. Such a system models, for example, single-product inventory systems, where policies are the replenishments, random disturbances are the demands, and costs are the usual overage and underage costs.

If one views the policies as functions of the states, then this problem can be solved by dynamic programming, and the optimal policies are piecewise affine in the state.

Alternatively, one can view the policies as general functions of the disturbances. This viewpoint has been advocated by numerous researchers, and in particular, many have examined the special case of affine functions. However, nothing has been known about what is lost by restricting to affine functions.

In this paper, Iancu shows that, for the dynamical system he considers, in actuality nothing is lost by considering affine functions instead of general ones. The proof technique is geometric, constructive, and quite novel.

Furthermore, because affine policies can be represented compactly, Iancu's result leads to practical algorithms in several interesting cases. For example, in the case of a single-product inventory system, the choice of optimal policies can be formulated as a linear program.

The INFORMS Optimization Society is very pleased to award Dan Iancu the 2009 Student Paper Prize for his highly innovative paper.

-- Dan presented a short summary of his paper.

Congratulations to Dan!

Discussion: Prizes

- Currently, the Society awards three bi-annual prizes: Student Paper, Prize for young researchers, Farkas prize for mid-career researchers.
- Wording changes have been proposed to the charters of existing prizes, to unify eligibility dates and require electronic submissions.
- Several arguments can be made to offer another award, targeting senior researchers:
- OS is the only INFORMS society with no award open to senior researchers
- INFORMS encourages subdivisions to offer awards
- An award for senior researcher will generate publicity for the field, and increase the number of optimization researchers who are recipients of high-level prestigious awards
- Feedback has been solicited from a number of prominent optimization community members
- A proposal for a new award has been made:
- Life-time achievement for optimization theory and applications, to be awarded in odd-numbered years, starting in 2011. The proposal is to have the award open to both members and non-members of the society, with no restrictions on age, subfields, or nature of contributions (i.e., theory vs. applications)
- A lively discussion at the business meeting included support and criticisms of the proposal, as well as suggestions for other changes to the existing awards. Suggestions included increasing the frequency of current awards and restricting the life-time achievement award to candidates who have not received other life-time achievement awards, in particular the John von Neumann theory prize from INFORMS and the Dantzig prize from the Mathematical Programming Society.
- The Chair, Nick Sahinidis, will form a committee of recent past chairs and the current chair and chair-elect to further discuss the Society's awards.

New business

- No new business arising at the meeting

Thanks

Thanks to all of you for supporting the INFORMS Optimization Society.

Society officers welcome any questions, suggestions and ideas related to the Optimization Society activities.

See you again in Austin, TX, November 2010, at the 2010 INFORMS meeting!

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Secretary/Treasurer
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