Spring 2004



# Newsletter of the INFORMS Computing Society

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#### S. Raghavan

Robert H. Smith School of Business University of Maryland

#### **Edward Wasil**

Kogod School of Business American University

## 9th Informs Computing Society Conference



January 5-7, 2005 Loews Annapolis Hotel Annapolis, Maryland

## **Special**

## 9<sup>th</sup> **INFORMS** Computing Society Conference Issue

This conference focuses on the interface of computer

science, artificial intelligence, operations research, and management science. We invite your participation - submit a paper for the conference volume, present your latest research and applications, organize a session. In the table of contents at



the left, you can find most of the conference details, from the Call for Papers to Registration to ICS and INFORMS links. As conference co-chairs, we hope to hear from you soon and encourage you to join us in Annapolis in 2005.

## **Conference Sponsors:**





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#### ICS Officers

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The ICS Newsletter is published semiannually by the INFORMS Computing Society (ICS). Manuscripts, news articles, advertisements and correspondence should be addressed to the Editors. Manuscripts submitted for publication will be reviewed and should be received by the Editor three months prior to the publication date. Requests for ICS membership information, orders for back issues of this Newsletter, and address changes should be addressed to:

INFORMS Computing Society Business Office 901 Elkridge Landing Road, Suite 400 Linthicum, MD 21090-2909 phone: (410) 850-0300

Views expressed herein do not constitute endorsement by INFORMS, the INFORMS Computing Society or the Newsletter editors.

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## **Letter From the Editor**

By David L. Woodruff Acting Newsletter Editor

My final issue as editor of this newsletter is devoted to the event that caused me to become active



in the Society: the biannual conference. It's a great opportunity to connect with people in our research community. I remember well my first meeting as an Assistant Professor. I had the opportunity to get a ride to a lunch away from the hotel with Fred Glover. This, in turn, gave me opportunity to get lost with the leading researcher in search! At another meeting I had the opportunity to ask David Shanno about interior point methods for quadratic programs. He gave a detailed lecture complete with algebraic descriptions written in exquisite detail on the first piece of paper he could get his hands on, which happened to be the back of a business card. I hope that all readers of the Newsletter will seriously consider attending the meeting this Winter in Annapolis so they can share their stories with me and we can create a few new ones.

In addition to the featured information about the ICS conference, the newsletter also has a report from David Kelton concerning the INFORMS Journal of Computing. I would summarize the condition of the journal using the word "prospering." As I leave editor's position for this newsletter, I want to thank Tom Wiggen of the University of North Dakota for continuing to maintain the archive of newsletters on the web. I would also like to thank UC Davis student Ben Lou who has served as managing editor.

## Message from the Chair By Ariela Sofer ICS Chair

Spring is in the air and ICS is humming with activity. First and foremost are the preparations for the ICS Conference, which will be held in Annapolis, January 5-7, 2005. Conference organizers Bruce Golden, S. Raghavan, and Edward Wasil are putting together a terrific program. With Bill Pulleyblank as plenary speaker and a growing list of noted participants, this promises to be an exciting and rewarding conference.

Nominations are still open for the ICS Prize. The prize is an annual award for the best English language paper on the OR/CS interface. The award is accompanied by a certificate and a \$1,000 honorarium. The distinguished prize committee is chaired by Jonathan Eckstein and includes also David Gay, Lou Hafer, Terry Harrison, and John Hooker. Many thanks to the committee for taking on this important task.

Preparations are also ongoing for the INFORMS Meeting in Denver (October 24-27). We already have lined up a strong list of sessions and speakers in the ICS cluster. If you wish to organize a session in the cluster – there is still a short time to do so. Please contact me for further information.

The Board has been tossing around some ideas regarding special interest groups within the Society. You will be hearing more about this at the Business Meeting in Denver. I have also been looking at the idea of industrial sponsors for the Society. Please contact me if you have any thoughts or ideas on these issues.

In closing, many cheers to Dave Woodruff, for putting together yet another great newsletter. I hope to see you in Denver!

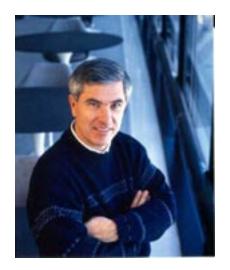


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## Plenary Speaker: William R. Pulleyblank

William R. Pulleyblank is the Director of Exploratory Server Systems in IBM's Research Division and the Director of the IBM Deep Computing Institute. From 1995 to 2000 he was the Director of Mathematical Sciences. He has also served as the Research relationship executive responsible for the Financial Services sector in IBM, the Utility and Energy Services industry, and for the Business Intelligence group.

Before joining IBM Research in 1990, Dr. Pulleyblank was the holder of the Canadian Pacific Rail/National Sciences and Engineering Research Council of Canada (NSERC) Chair of Optimization and Computer Applications at the University of Waterloo.



He is a member of the Mathematical Sciences Board of the National Research Council (NRC), the Board of Directors of the Alberta Informatics Circle of Excellence (iCORE), the External Advisory Board of the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), the Advisory Council of the Pacific Institute for the Mathematical Sciences (PIMS), the External Advisory Committee of the Center for Research on Parallel Computation, Rutgers University International Conferences on Discrete Applied Mathematics and Operations Research (RUTCOR) International Advisory Board, and member of the Scientific Advisory Panel (SAP) of The Fields Institute for Research in Mathematical Sciences. In addition, he serves on the editorial boards of a number of journals.

As Director of the Deep Computing Institute, Dr. Pulleyblank coordinates activities in the field of deep computing both within IBM

and with industry, academic, and government research partners around the world. The Deep Computing Institute brings together experts in the mathematical sciences, computer science, and other disciplines to address challenging business and scientific problems, including Grand Challenge problems. Dr. Pulleyblank is the IBM Partnership Executive for the University of Minnesota.

Dr. Pulleyblank's personal research interests are in operations research, combinatorial optimization, and applications of optimization. In addition to writing a number of scientific papers and books, he has consulted for several companies including: Mobil Oil on helicopter routing; Marks and Spencer on depot management; Statistics Canada on survey validation; and CP Rail on train scheduling.

## **Paper Submissions**

#### **Papers for the Conference Volume**

Papers for the conference volume are limited to 6,000 words and should be submitted as a PDF file by email to ics2005@rhsmith.umd.edu. After acceptance for publication, authors will prepare their paper for the conference volume using a style format supplied by the publisher. A paper accepted for the conference volume must be presented at the conference. Click here to e-mail your submission for the conference volume.

#### **Papers for Presentation**

Submit an abstract of less than 200 words, not containing formulas, references or abbreviations, as a text file by email to ics2005@rhsmith.umd.edu. The names of all authors and affiliations should be provided, with the presenting author listed first. Click here to e-mail the abstract of your paper.

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#### **Brief Report on the INFORMS Journal on Computing**

Calendar year 2003 ended with 137 new submissions, up 38% from 2002. Of the 110 papers on which processing was completed during 2003, 36 were accepted, or 33%, down from 38% in 2002. Volume 15 (2003) contained 24 papers, 428 numbered pages, and 20 unnumbered pages (front and back matter), for a total of 448 pages, exactly on budget. Issue 2 (Spring 2003) was a Special Issue on Mining Web-Based Data for e-Business Applications, Guest Co-Edited by Alex Tuzhilin and Louiga Raschid.

Issue 1 (Winter) of Volume 16 (2004) has been published, with eight papers, 105 numbered pages, and three unnumbered pages, for a total of 108 pages. We currently have an accepted-paper backlog of 57 papers, publication of which will begin with Issue 2; our page budget for Volume 16 (2004) was increased from 448 to 512 pages, which will help get papers published in a reasonable time frame. Our Online Supplements archive now houses 15 entries supporting 16 papers, and more are in development.

Issue 4 (Fall) of Volume 16 (2004) will be a Special Issue on O.R. and Computational Biology, being Guest-Edited by Harvey Greenberg. As a lead-in to that, the first paper in the preceding issue will be a State-of-the-Art Survey paper entitled "Opportunities for Combinatorial Optimization in Computational Biology" by Harvey Greenberg, William Hart, and Giuseppe Lancia.

We also have in development a Special Issue on O.R. in Electrical and Computer Engineering, being Guest-Edited by John Chinneck, as well as a Special Cluster of papers on Computation in Music, being Guest-Edited by Elaine Chew.

During 2003, Marcel Neuts stepped down from the Advisory Board, after many years of service. Area Editor Jan Karel Lenstra, with JOC in that position since its inception some 15 years ago, stepped down (but agreed to join the Advisory Board), and was replaced by Bill Cook. And we closed the former Area on High-Performance Computation as its traditional topics had migrated into other Areas.

Please visit our website, http://joc.pubs.informs.org/, for more information on the above and other topics.

Respectfully submitted by: W. David Kelton, Editor-in-Chief, April 4, 2004.

## TraLog Symposium Second Call for Papers

TraLog - Bridging the gap between modelling traditions - takes place at Molde University College, Norway, August 25-27, 2004.

The scope of this symposium is to bring leading experts together to explore the possibilities of making transdisciplinary use of different modelling traditions. Aspects of model solving will also be discussed. The two major directions are operations research related models and those of transportation economics.

Specially invited speakers include Andrew Daly, Teodor G. Crainic, Martine Labbé, Michal Florian, Michel Gendreau, Gilbert Laporte, Otto Anker Nielsen and Stefan Voß. Please visit the conference home page to place yourself on the conference mailing list, as well as to register and submit your abstract.

More details about the conference can be found at http://lodde.himolde.no/arrang/tralog/



#### 2004 INFORMS COMPUTING SOCIETY PRIZE CALL FOR NOMINATIONS

Nomination Deadline: June 1, 2004

Nominations are invited for the INFORMS Computing Society (ICS) Prize for the best English-language paper or book on the Operations Research/Computer Science interface. The objectives of the prize are to:

- Promote the development of high-quality work advancing the state of the art in the operations research/computer science interface,
- Publicize and reward the contributions of those authors/researchers who have advanced the state of the art, and
- Increase the visibility of excellent work in the field.

To be eligible, a nominated work <u>must</u> be:

- Published in the open literature,
- Pertinent to the operations research/computer science interface, and
- Written in English.

The prize committee for 2004 is chaired by Jonathan Eckstein. This prize will be awarded October 25, 2004, at the INFORMS Fall Meeting in Denver, Colorado. The award is accompanied by a certificate and a \$1,000 honorarium.

Nominations must include: the title, author's name, place and date of publication, and a copy of each nominated work (in quadruplicate, please, if it is not both easy and legal to photocopy). If you wish the nomination materials to be returned after the review process, so indicate.

#### **Contact Information:**

Professor Jonathan Eckstein

RUTCOR, Room 155 640 Bartholomew Road Busch Campus, Rutgers University Piscataway, NJ 08854

Phone: (732) 445-3272 (no voicemail available)

Fax: (732) 445-5472

email: jeckstei@rutcor.rutgers.edu

For further information on the INFORMS Computing Society Prize, see the ICS home page: <a href="http://www.informs.org/ics">http://www.informs.org/ics</a>

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## **Call For Papers**

The INFORMS Computing Society (ICS) solicits papers and presentations for its ninth conference on the interface of computer science (CS), artificial intelligence (AI), operations research, and management science (OR/MS). The conference organizers invite you to submit theoretical and applied work that highlights the conference theme. Specific areas of interest include (but are not limited to) design and analysis of algorithms, heuristic search and learning, modeling languages, parallel and distributed computing, simulation, computational logic, and visualization. Work that focuses on new or novel applications in the interface of CS, AI, and OR/MS is especially welcome.

#### **Submissions**

There are two categories of submissions:

- (1) papers for the conference volume and
- (2) papers for presentation.

#### Papers for the Conference Volume

A volume of peer-reviewed papers will be published for distribution at the conference. A paper submitted for the conference volume must describe original work that has not been published previously and must not have been submitted for publication elsewhere. A paper for the conference volume is limited to 6,000 words, will be refereed, and should be submitted as a PDF file by email to <a href="mailto:ics2005@rhsmith.umd.edu">ics2005@rhsmith.umd.edu</a>. After acceptance for publication, authors will prepare their paper for the conference volume using a style format supplied by the publisher. A paper accepted for the conference volume must be presented at the conference.

#### **Papers for Presentation**

A paper may be submitted only for presentation at the conference and will not appear in the conference volume. An abstract of less than 200 words, not containing formulas, references or abbreviations, should be submitted as a text file by email to <a href="mailto:ics2005@rhsmith.umd.edu">ics2005@rhsmith.umd.edu</a>. The names of all authors and affiliations should be provided, with the presenting author listed first. A paper accepted for presentation will have the abstract printed in the conference program.

#### **Important Dates:**

#### **Papers for Conference Volume**

Submission Deadline May 10, 2004 Notification of acceptance July 2, 2004 Final papers due August 2, 2004

#### **Abstracts for Presentations**

Submission dealine September 17, 2004 Notification of acceptance October 1, 2004

Hotel Registration Cutoff: December 4, 2004

Conference Preregistration Rate: November 30, 2004

## **Confirmed Participants and Registration Information**

#### Name Affiliation

Anand Anandalingam University of Maryland Ed Baker University of Miami

Richard Barr Southern Methodist University

John Chinneck
Teodor Gabriel Crainic
Robert Fourer
Saul Gass
Carleton University
University of Montreal
Northwestern University
University of Maryland

Harvey Greenberg University of Colorado at Denver

Don Gross George Mason University
Karla Hoffman George Mason University
Anito Joseph University of Miami
Bjarni Kristjansson Maximal Software

Manuel Laguna University of Colorado at Boulder

Andy Loerch George Mason University

Robin Lougee-Heimer IBM

Hani Mahmassani University of Maryland

Denise Masi Mitretek Paul McAree DARPA

Anna Nagurney University of Massachusetts

Siggi Olafsson Iowa State University
Ray Patterson University of Alberta
Janos Pinter Dalhousie University
Roman Polyak George Mason University

Robert Popp DARPA Bill Pulleyblank IBM

Doug Shier Clemson University
Ariela Sofer George Mason University
Bill Stewart College of William & Mary
Luis Vargas University of Pittsburgh

Fred Wieland Mitre

Kevin Wood Naval Post Graduate School
David Woodruff University of California at Davis

Zhenying Zhao University of Maryland

Registration rates for the conference are as follows:

**Before** November 30, 2004 **After** November 30, 2004

\$284 \$335

\$125 student \$150 student

Registration fee includes the conference volume, breakfasts, breaks, luncheon, and welcome reception. Student registration fee does not include the conference volume.

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## **Hotel Information**



#### Location

The Loews Annapolis Hotel is located about 35 minutes south of Baltimore-Washington International (BWI) Airport.

Loews Annapolis Hotel 126 West Street Annapolis, Maryland 21401 Phone: 410-263-7777

www.loewshotels.com/hotels/annapolis

#### Rates:

The guestroom rate is \$120 single or double occupancy plus tax. The guestroom rate applies from January 4 to January 8, 2005.

#### **Reservations:**

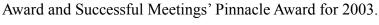
Guestroom reservations must be made prior to December 4, 2004 to ensure the ICS discounted rate. Reservations received after this date are subject to availability at prevailing rates. Reservations can be made by phone (800-526-2593), fax (410-263-0084), or email (<u>Annapolisreservations @loewshotels.com</u>). Please use the <u>conference reservation form</u> for your fax or email, and be sure to refer to the Ninth INFORMS Computing Society Conference. Check-in time is 3:00 pm and check-out time is 12:00 pm.

Reservations must be guaranteed by credit card or deposit in order to be confirmed. Cancellations must be received 24 hours prior to the scheduled arrival date to avoid billing of one night's room and tax to your account. Please be aware that there is a \$50.00 per room handling charge for any individual who checks out earlier than the confirmed departure date.

#### Rooms

The Loews Annapolis Hotel has 217 rooms and is a recipient of the AAA 4-Diamond Hotel

Award and Successful Meetings' Pinnacle Award for 2003





All rooms and suites include cable TV, in-room movies, dataport, voice mail, coffee maker, hair dryer, iron and ironing board, and available high-speed internet access. Non-smoking rooms are available. The hotel has a fitness center. Self-parking (\$11 per night) and valet parking (\$14 per night) are available (rates are subject to change).

901 Elkridge Landing Road, Suite 400 Linthicum, MD 21090-2909

