

INSTITUTE FOR OPERATIONS RESEARCH  
AND THE MANAGEMENT SCIENCES

## NEWSLETTER

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**President's Message**

Another change of season is upon us, so it's time for the "State of the College" address. In the previous newsletter, and during last year's business meetings, I made a plea for your involvement in I-CS. I truly appreciate both the formal and informal responses. Your annual dues and volunteer efforts mean our professional community can support activities that we as individuals could not. The goals of I-CS are to "encourage the development and dissemination of knowledge in the area of simulation" and "promote communication and interaction among individuals and organizations who share an interest in simulation." I'd like to briefly mention some of the many ways these goals have been addressed during the past year.

First, a special thanks to all those who have/will participate in conferences this year: arranging or chairing sessions, preparing presentations and papers, or otherwise helping out with organizing the conference or simulation track. These professional venues give us the unique opportunity to disseminate and discuss state-of-the-art work with colleagues from around the world. It was refreshing to see a full and vibrant simulation track at the recent INFORMS Annual Meeting in Atlanta, after several years of more limited participation. It was also great to see such a large turn-out (with many first-time attendees) at the business meeting. We also welcome several construction engineers to I-CS; this group has been active in WSC for a number of years. We thank the "stalwart ranks" for their continuing support of the simulation community, and look forward to the energy, ideas, and diversity the new members will bring. If you know anyone who might be interested in joining I-CS, please send them this newsletter and/or point them to the I-CS website for information on joining.

Second, I-CS has three awards that recognize contributions to the field of simulation: the Outstanding Publication Award, the Distinguished Service Award, and the Lifetime Professional Achievement Award. (Thanks to this year's standing award committee members for their time and effort: Dave Goldsman, David Kelton, Barry Nelson, Steve Roberts, Bob Sargent, Tom Schriber, Leyuan Shi, and Jim Wilson). Each of these awards is given at most once per year at the Winter Simulation Conference. The 2003 awards will be announced at the Welcome session and formally presented at the I-CS Business Meeting.

It is also gratifying when members of the simulation community receive external recognition. At the INFORMS Atlanta meeting in October, George Fishman and Lee Schruben became INFORMS Fellows. They joined simulation aficionados Don Gross, Y.C. (Larry) Ho, Bill Maxwell, and Ward Whitt from the inaugural class. Hong Wan (a graduate student of Bruce Ankenman and Barry Nelson at Northwestern University) won the "Best Student Paper" award from the *Quality Statistics & Reliability* INFORMS section for her presentation on Controlled Sequential Bifurcation. Other Ph.D. students will have a chance to share their research at the WSC PhD Colloquium (sponsored by I-CS, with this year's organizers John Fowler and Paul Hyden) held on Sunday afternoon, December 7.

*Continued on Page 6*

## Contents

President's Message.....	1
College Officers.....	1
Editor's Corner.....	2
College Web Page.....	2
Treasurer's Report.....	3
Business Meeting Minutes – INFORMS Atlanta.....	3
Secretary's Corner.....	5
Simulation Puzzle: Warping Coins...	5
President's Message Continued.....	6
CORS/INFORMS 2004.....	6
WSC'03.....	7
Fishman and Schruben Become INFORMS Fellows.....	8
Hong Wan Wins QSR Prize.....	8
Warping Coins: Answers.....	8
Simulation Area of <i>The INFORMS   Journal on Computing</i> .....	9
Simulation Dept. for <i>Operations   Research</i> .....	9
Stochastic Models and Simulation Dept. for <i>Management Science</i> ..	10
INFORMS Denver 2004.....	10
Simulation Archive.....	11
Job Openings in Simulation.....	11
Defense Modeling and Simulation Awards.....	13
E-mail Directory.....	13
Event Calendar.....	14

## Editor's Corner

I hope that this newsletter finds you well, and having fun at work and elsewhere. I'd like to highlight a few items from this newsletter, and also thank someone that was missed in Susan's president's message.

First, as you will see from Susan's message, the college is in the process of increasing its membership to pass the magic figure of 500 that is a prerequisite for becoming an INFORMS society. There are several benefits to becoming a society that make it a worthwhile goal. So nag everyone around you to go the INFORMS-CS website ([www.informs-cs.org](http://www.informs-cs.org)) and sign up. We're *really* close!

If we become a society then a name change may be in order and will be voted on at WSC. See Susan's message for details. Don't forget to come to WSC!

Second, this issue has a couple of small items that celebrate awards to members of the society. You can read about both new and old hands receiving well-earned recognition for their efforts. Please let us know of other awards. We're all a bit modest, and it can't hurt to blow our own horns a bit!

Third, Jim Wilson deserves yet another accolade for his wonderful efforts in creating the simulation archive. He gives us the highlights in this issue.

Fourth, Susan forgot to thank one person in her president's message – herself! She works hard, mostly behind the scenes, to help the college and its members. She's always the one that, in the email discussions between college officers, replies with a carefully thought out response pointing out things the rest of us had overlooked. Thanks for your thoughtfulness and careful direction Susan! But you're not done yet! We've still got our claws in you for a wee bit longer!

Cheers! *Shane G. Henderson*

Please pass along printouts of the newsletter to friends and colleagues, or let them know about the *INFORMS College on Simulation World Wide Web* page. You'll get more than just a newsletter. Its URL is

<http://www.informs-cs.org/>  
or <http://simulation.section.informs.org>

This web page is designed to be a general source of information and WWW links for the simulation community, with a particular focus on College interests and activities. There are often additional special items, such as WSC'03, and upcoming *INFORMS* conferences.



*INFORMS College on Simulation Newsletter* is published in the Spring and Fall of each year by the *INFORMS College on Simulation*. Membership in the *College on Simulation* is independent of membership in *The Institute for Operations Research and the Management Sciences*. The annual membership fee for non-*INFORMS* members is \$20.00; *INFORMS* members may join for \$10.00. The fee for students and retired members who are also members of *INFORMS* is \$5.00.

**To join**, send name, address, and e-mail address (if applicable), with the appropriate fee, to Steve Chick (his contact information is on the cover). Please make checks payable to *INFORMS College on Simulation*. Please pass along this announcement to others who might be interested in joining.

POSTMASTER: Send address changes to *INFORMS College on Simulation Newsletter*, 901 Elkridge Landing Road, Suite 400, Linthicum, MD 21090.

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# INFORMS College on Simulation Treasurer's Report

Net Worth

ASSETS	
Cash and Bank Accounts	
INFORMS Account (as of Jun 30, 2003)*	11,056.69
INFORMS-CS Checking (as of Oct 10, 2003)	2,549.12
Nonliquid Assets	
WSC Seed Money	2,000.00
<b>TOTAL ASSETS</b>	<b>15,105.81</b>

LIABILITIES	
	0.00

NET WORTH 15,105.81

Headquarters Account funds are held by the *INFORMS* office: 901 Elkridge Landing Road; Suite 400; Linthicum MD 21090-2909. Checking account funds on deposit with Bank of America, 10 Light Street, Baltimore MD 21202 (checking account number 003936322008).

2003 Year-to-Date Cash Flow report  
10 October 2003

INFLOWS*	
Dues Income (as of Aug 30, 2003)	3,384.00
Anonymous donations	800.00
Interest Income*	70.36
Friends of LPAA	621.61
<b>TOTAL INFLOWS</b>	<b>4,805.61</b>
OUTFLOWS (includes December '02 outflows)	

'02 Best Publication	500.00
'02 Lifetime Professional Achievement Award	1,085.60
'02 Distinguished Service Award	500.00
'02 CUMW Awards	450.00
'02 Ph.D. Colloquium	750.00
Web Page Maintenance	1,200.00
WWW domain name fees	75.00
WSC'02 Reception	929.75
WSC Proceedings Copies, College Archives	131.80
Postage for Newsletter, Fees	55.36

TOTAL OUTFLOWS 5,677.51

NET CASH FLOW (estimate) -871.90

\*Interest income from the account held at *INFORMS* headquarters is not calculated until the end of the calendar year. Interest income for 2002 was \$70.36. Dues income reflects actual receipts to *INFORMS* office until 6/30/03 plus those processed via the Secretary/Treasurer through the local account. For the entire calendar year 2002, there was \$4,140 in dues revenue, and that can be used as an estimate of total years income. While the net cash flow listed to date is negative (by \$900 or so), I hope that the dues income will rise by \$700-\$900 before the end of the year.

Dues income updates the estimate provided in the Spring Newsletter, and is based on figures from the *INFORMS* office as of 8/31/2002 plus handled through the local account.

*Respectfully submitted by Stephen E. Chick, Secretary/Treasurer,  
November 1, 2003.*

## INFORMS College on Simulation Minutes of Business Meeting INFORMS Annual Meeting, Atlanta, Georgia October 19, 2003

*Stephen E. Chick and Shane G. Henderson*

Susan Sanchez, president, brought the meeting to order at 6:25pm. After a round of applause for new attendees, Susan Sanchez reviewed the goals of the college and gave an update on the winners of last year's college awards. She then mentioned several opportunities within the college for volunteers, including officers of the society, an ad-hoc committee on membership and the committee on under-represented minorities and women. She reiterated some of the main features of the College on Simulation.

- I-CS established to

–“encourage the development and dissemination of knowledge in the area of simulation”

promote communication and interaction among individuals and organizations who share an interest in simulation”

- Activities
  - Co-sponsor of Winter Simulation Conference (in I-CS? \$150 discount!)
  - Track (sponsored & contributed) at fall *INFORMS* conferences
  - Tracks/sessions at related conferences
  - Maintain web repository of all WSC papers since 1997
  - Publish bi-annual newsletters for simulation community
  - Establish simulation archive which holds memorabilia relevant to history of the field & related professional societies
  - Outreach to new members via PhD colloquium at WSC, CUMW awards to undergrad & grad students, faculty
  - Maintain links to info about upcoming conferences, workshops, teaching resources, web sites of active R&D projects, etc.

– Professional friendship

Russ Barton, vice president, reviewed the sessions at the meeting that are sponsored by the college. He requested volunteers to sponsor sessions at the upcoming CORS/INFORMS meeting in Banff Alberta, and the upcoming INFORMS Denver meeting in 2004.

Susan Sanchez delivered the secretary/treasurer's report for Steve Chick, who was not able to be present. The minutes of the college's business meeting at the 2002 winter simulation conference of 2002 were approved by verbal vote. The main point of note was that without a return of seed money for the Winter Simulation Conference (WSC) the college cannot maintain its financial position.

Barry Nelson, one of two representatives of the College on Simulation on the Board of the Winter Simulation Conference, delivered a report on the status of the conference. The Patrons of the Winter Simulation Conference fund, conceived and promoted by Jim Wilson, raised over \$35,000 in donations so far. A separate board of trustees will manage this fund. There will be a meeting at the 2003 Winter Simulation Conference on Sunday at 5.15pm. The meeting will entail a brief discussion of the conference and its management/financial situation and so forth, and representatives of all the organizations involved with the conference will be present. After the brief presentation the meeting will be opened for questions and discussion. So far the registration for the 2003 WSC is up 20% on last year at the same time, and the hotel pickup is 60% ahead. (Hotel pickup is the number of rooms booked at the conference hotel, and almost always forms part of the agreement between the conference and the hotel.) Russell Barton emphasized that the WSC seed money and the return on that money is a large fraction of the college's income, so that the college's financial fortunes are closely tied to the success of the WSC. Starting in 2004, INFORMS will manage the conference instead of Talley Management. This looks set to save the conference a great deal of money while not compromising quality.

The floor then returned to Susan Sanchez. Newsletter articles were requested soon by newsletter editor Shane Henderson. Paul Glasserman is completing his term as

area editor at management science. Perwez Shahabuddin will be taking over at that post. The Simulation Archive is progressing: Jim Wilson reported (in absentia) that documents from several prominent individuals in the simulation community would be becoming a part of the Simulation Archive. Susan Sanchez mentioned some proposals for either increasing college revenue, or decreasing college costs. These were floated for the purposes of discussion, but not decision. In particular, one of these proposals was to reduce the outlay associated with awards, but there will be no changes to this year's awards.

Dean Hartley, a representative on the INFORMS subdivision council, stated that if the college obtains over 500 members then the college should not encounter any resistance to becoming an INFORMS society.

John Fowler mentioned that there was room for more doctoral students at the Ph.D. colloquium at the 2003 Winter Simulation Conference.

The meeting adjourned at 6:58pm.

#### Attendees

Dave Goldsman, Georgia Tech; Paul Glasserman, Columbia; Jingyi Li, Columbia; David He, Illinois – Chicago; Jeff Tew, GM Research and Development; Jeremy Staum, Northwestern; Sheldon H. Jacobson, Illinois – Urbana/Champaign; Christos Alexopoulos, Georgia Tech; Theologos Bountourelis, Georgia Tech; Jerry Banks, Independent consultant; Lee Schruben, California – Berkeley; Andrei Prudius, Georgia Tech; Irina Ioachim, Delta Technology; Bruce Schmeiser, Purdue; Michael Fu, Maryland; Leyuan Shi, Wisconsin – Madison; Mike Freimer, Penn State; Sigrun Andradottir, Georgia Tech; Loo Hay Lee, National University of Singapore; Yun Pan, Wisconsin – Madison; Isabel Darcy, Iowa; David Cawlfild, Olin Corporation; Mahdi Nasereddin, Penn State; Nilay T. Argon, Wisconsin – Madison; Bruce C. Shultes, Cincinnati; Dean Hartley, Hartley Consulting; John Fowler, Arizona State; Shane G. Henderson, Cornell; Barry L. Nelson, Northwestern; L. Jeff Hong, Northwestern; Hong Wan, Northwestern; Sandeep Juneja, Tata Institute for Fundamental Research

## Secretary's Corner

This issue of the Newsletter I'd like to report on four main items. The first main item is a comment on how truly international we have become. Out of a membership that varies from 425 to 525 throughout the year, the international contingent of our College on Simulation is more than 100 members strong! This really speaks to the globalization of the research world, and I'm pleased that the Winter Simulation Conference continues to be a meeting ground for this diverse membership with many talents and interest areas in the world of simulation.

The second main item is an extension of gratitude for those who donated to the Friends of LPAA donation campaign led by Jim Wilson. Those donations are targeted towards helping the Awards Ceremony after the LPAA award was given at the last WSC. The continued generosity of members of the INFORMS College on Simulation community never ceases to amaze me.

The third main item is that the Winter Simulation Conference and all of the sponsoring organizations of the WSC, including the College on Simulation, are implementing two changes. First, WSC has stopped requesting seed money checks for one WSC immediately after cutting a refund check for the seed money from the previous WSC. The seed money is used to insure the financial health of the conference by providing funds to plan the conference prior to the receipt of any registration fees. This change means that the Net Worth and Cash Flow Reports that I've submitted have a slightly different format than in the past. Because WSC is now retaining the seed money year around, there are no longer entries of seed money

entering and leaving the inflow and outflow columns of the Cash Flow Report each year. Instead, I've listed the seed money as a \$2000 asset in the Net Worth report. It belongs to the INFORMS College on Simulation, but as part of the College's continuing strong support of the Winter Simulation Conference is entrusted to the hands of the WSC Board of Directors. The result is that the Net Assets appears to be \$2000 more than it would have, relative to last year's report, since last year's report did not list the WSC Seed Money as an asset. A second change is that the WSC has requested that sponsoring organizations increase their seed money amount. For the College on Simulation, this amount will increase the seed money from \$2000 to \$4000. That increase will become an obligation for the College in early 2004. We're planning on a successful WSC'03, so that hopefully there will be a WSC Surplus Return to the College, funds that can help cover the increased seed money that has been requested. These changes in the financial relationship between the College and WSC will help guarantee the well being of the Winter Simulation Conference that has been an enjoyable part of many of our professional lives.

The last main item, but not the least, is to thank you all for your membership and support of the College on Simulation. If you know someone who is planning on or thinking of attending WSC'03, and they are not yet members of the College on Simulation, please let them know that joining the INFORMS College on Simulation gives a tremendous savings on WSC registration fees. I look forward to seeing you at the upcoming Winter Simulation Conference in New Orleans.

*Stephen E. Chick, Secretary*

## The Simulation Puzzle: Warping Coins

*By Shane Henderson*

This issue's puzzle goes all the way back to John Von Neumann, and is a problem that has received some recent attention in the research literature. You have a coin that has probability  $p$  of coming up heads. Unfortunately, you do not know what  $p$  is, except that it lies in the interval  $(0, 1)$ . Is there a way to use the coin to mimic fair coin flips, i.e., can you use the coin to generate a random outcome that is "heads" with probability  $\frac{1}{2}$  and "tails" with probability  $\frac{1}{2}$ ?

Here's a couple of extensions that you may want to think about.

1. Given a fair coin, can you mimic a coin with probability  $p$  of coming up heads, where now you know  $p$ ?
2. Given a coin that comes up heads with probability  $p$ , is there a way to generate a coin with probability  $f(p)$ , where the function  $f$  is known but  $p$  is not?

## President's Message Continued

Mark your calendars now for the I-CS Business Meeting at WSC: Tuesday, December 9 from 5:15-6:00 in the University room. Along with the usual topics, one question facing us as we prepare to become an INFORMS "society" instead of an INFORMS "section" is: what should we call ourselves? This has been informally discussed several times in the past, and the two options that have received the most favorable responses are:

1. Retaining the name because of its history and name recognition. (We could add another line to our letterhead stating that we are "A *Society of INFORMS.*")
2. Becoming the "INFORMS Simulation Society." This would require a by-laws change, but we could begin the process if this were the consensus of the membership.

Now the time for talking is almost done. Expect one last round of discussion, then a vote before the meeting adjourns. A reception will follow.

There's always a danger of leaving people out when making a list. However, I'd be remiss if I didn't mention a few more people by name. Russell Barton has done a great job of organizing simulation sessions at the INFORMS conferences; Steve Chick has

meticulously kept us in line with meeting minutes, and kept us up to date with financial and membership information; and they've both contributed much more in terms of ideas for the future. Shane Henderson and Mike Kuhl have done a great job putting together and distributing the Newsletter, as well as notifying the membership of important activities via the mailing list. Peter Welch keeps our web pages current and informative. Jim Wilson's efforts to establish the Patrons of WSC and expand the Simulation Archives provide continuity to the simulation community. I've been privileged to have such a great group to work with.

I'll end with one more request for involvement. Russell Barton will be the new President when the officer terms expire, but we will hold elections in spring 2004 for the incoming Vice President/President-Elect, Secretary and Treasurer. If any of you have nominations, including self-nominations, please pass them along to me via phone, e-mail, or at the conference.

So, thanks once again to all of you for helping keep the field of simulation alive and well. See you in New Orleans!

--Susan Sanchez



### (Last) Call for Sessions: CORS/INFORMS Joint International Meeting May 16-19, 2004 The Banff Centre, Banff, Alberta, Canada

*From Russell Barton*

In addition to a comprehensive technical program, the Banff 2004 conference offers a full social program, with two great receptions: the Welcome Reception being held at the Banff Centre (the conference hotel), and the authentic Brewster Mountview Barbecue, complete with "original Alberta beef," a country and western band, and a giant bonfire. The conference site is located in Banff National Park, a UNESCO World Heritage Site, and just a few minutes outside the bustling town of Banff. You can tour historic sites, soak in hot springs, stroll along the shores of Lake Louise, and drive the Icefields Parkway into adjoining Jasper National Park.

It is not too late to organize a session for the simulation cluster. Contact Russell Barton (rbarton@psu.edu) by mid-November with session information, including the presenting authors (speakers) and paper titles. Abstracts would be useful but are not absolutely necessary at this time.

For more information on the conference, go to:

<http://www.informs.org/Conf/CORS>



## WSC'03: Driving Innovation

2003 Winter Simulation Conference  
December 7-10, 2003  
Fairmont Hotel  
New Orleans, Louisiana USA

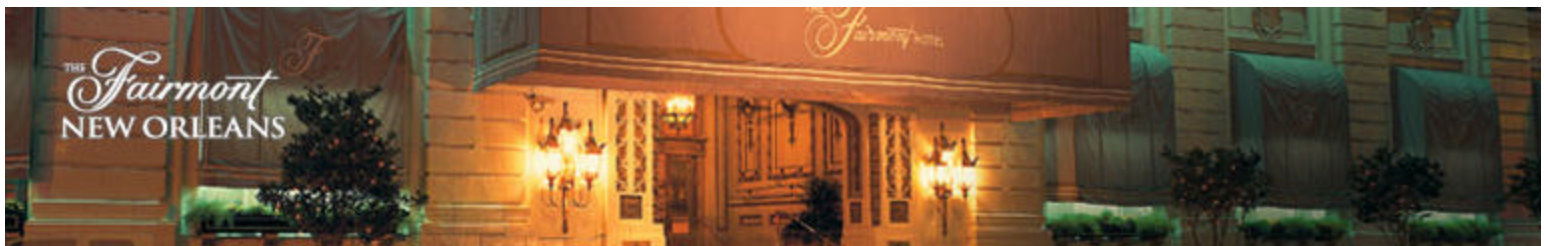
The 2003 Winter Simulation Conference will be held December 7th through December 10th at the legendary [Fairmont Hotel](#) adjacent to the French Quarter in the Central Business District. The Fairmont New Orleans sets the standard for elegance and impeccable service in a city known for its gracious accommodations. The Fairmont's location is within walking distance not only to the French Quarter but also the Garden District, Jackson Square, the Royal Street Antique Shops, the National D-Day Museum and many other attractions making New Orleans a perfect place for WSC. Moreover, shopping and dining is world class and an experience not soon to be forgotten.

WSC '03 will have sixteen concurrent tracks with something of interest for everyone with its blend of cutting-edge research, innovative applications, exhibits from top companies in the simulation industry and international speakers. Our keynote speaker, author Stephen Shapiro from London, England, has coached companies around the world including Australia, Singapore, England, France, Belgium, America and others. His work, bringing Innovation back into companies, includes simulation in its approach. The military keynote will be delivered by James F. Dunnigan, a well-known author of nine books, a game designer, and a military news analyst. His company, Simulation Publications Inc. (SPI), has recently expanded into on-line games.

Registration includes

- Admission to all WSC 03 Technical Program Sessions
- CD-ROM of the Proceedings
- Hard Copy of the Final Program containing abstracts of all Proceedings Entries
- Admission to Monday General Reception
- Admission to Exhibit Hall throughout the Conference
- Exhibit Hall Refreshment Breaks
- Admission to Sunday Special Presentations and Tuesday User Groups, and
- Admission to Poster Session, Ph.D.- Student Colloquium and First-Time Attendee Orientation

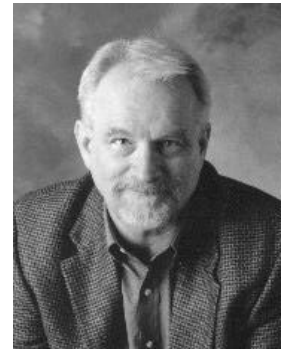
Mark your calendar now for WSC '03 and join us for an exceptional conference in this exceptional location. For more information, see [www.wintersim.org](http://www.wintersim.org).



## George Fishman and Lee Schruben become INFORMS Fellows



The INFORMS Fellows Award recognizes members who have made significant contributions to the advancement of operations research/management science, including contributions to the field and to the Institute. This year, George Fishman (left) and Lee Schruben (right) join Don Gross, Y.C. (Larry) Ho, Bill Maxwell, and Ward Whitt as INFORMS Fellows. See <http://www.informs.org/Fellows/index.html> for more details on the awards and a listing of current fellows. (The listing does not yet include 2003 awardees.)



## Hong Wan Wins Best Student Paper from Quality Statistics & Reliability

Hong Wan (pictured receiving the award from QSR Chair Dan Apley) won the "Best Student Paper" award from the *Quality Statistics & Reliability* INFORMS section for her paper "Controlled Sequential Bifurcation: A New Factor-Screening Method For Discrete-Event Simulation." Hong is a graduate student at Northwestern University, working with Bruce Ankenman and Barry Nelson. You can read more about Hong and her work at her website <http://users.iems.nwu.edu/~hongwan/>. Finalists for the prize were Myong K. Jeong, Georgia Institute of Technology, Pansoo Kim, Texas A&M University, and Haitao Liao, Rutgers University.

## Warping Coins: Some Answers

By Shane G. Henderson

A method for generating fair coins from unfair ones was given by John Von Neumann back in 1951. Here's one way to do it. Repeatedly toss the coin twice until the outcomes of the coin toss on the two throws are different. Now say that the fair coin comes up heads if the sequence head-tail is observed on the biased coin, and tails if the sequence tail-head is observed. Acceptance rejection has returned to haunt us yet again!

For the extensions

1. Inversion is one way to do this. Recall that inversion generates a random variable  $U$  on the interval  $(0, 1)$ , and returns "heads" if  $U < p$ , and "tails" otherwise. But how do we generate  $U$ ? We build  $U$  up, one binary digit at a time, and stop when we are sure that it is smaller than, or larger than,  $p$ . Write  $p = 0.a_1a_2a_3\dots$ , where  $a_1, a_2, \dots$  are the binary digits in the expansion of  $p$ . Usually one has to be careful how this is done since, e.g.,  $\frac{1}{2}$  has two representations –  $0.1000\dots$  and  $0.011111\dots$ , but in our case any representation will do. If the

fair coin comes up heads we record a 1, and otherwise we record a 0. Now, repeatedly flip the fair coin, associating the  $i$ th flip with  $a_i$ . Stop when you see the first disagreement between the outcome of the coin flip and  $a_i$ . (Notice that this happens in a geometrically distributed number of coin flips.) Call this (random) time  $N$ . If  $a_N = 1$  then declare "tails", and otherwise declare "heads".

2. This one is extremely subtle! For example, if  $p$  is known to lie in the interval  $[0, \frac{1}{2}]$  and  $f(p) = 2p$ , then there is no possible algorithm. But if  $p$  is known to lie in the interval  $[0, \frac{1}{2} - \epsilon]$ , and  $f(p) = 2p$ , then there is a way to do it! Mind boggling! For more reading see Keane and O'Brien (1994). A Bernoulli Factory. *ACM TOMACS* 4 213-219, Henderson and Glynn (2003). Nonexistence of a class of variate generation schemes. *Operations Research Letters* 31 83–89, and preprints from Mossel and Peres (<http://www.cs.berkeley.edu/~mossel/>), and Nacu and Peres (<http://www.stat.berkeley.edu/~serban/>).

## Report on the Simulation Area of the *INFORMS Journal on Computing*

By Susan Sanchez, Area Editor, November 1, 2003

Under the leadership of David Kelton, JOC submissions have increased and the journal's "Impact Index" (compiled by SSI) has risen quite a bit, making it 7th of 54 OR/MS journals on this measure and second only to Management Science among INFORMS journals. The Simulation Area is interested in research in all computational aspects of simulation. We seek high-quality research on the computational aspects of simulation model building, simulation data structures, simulation modeling and experiment environments, stochastic input modeling, random-variate generation, output analysis, optimization, variance-reduction methods for simulation experiments, and other aspects of simulation modeling, experimentation, and analysis. Tutorials and applications in the above areas that are comprehensive and integrate from multiple sources are also welcome.

Complete instructions for authors are available at <http://joc.pubs.informs.org>. Electronic submissions (preferably in .PDF format) should be sent to

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831-656-2595 (fax)

Since the beginning of the year, there have been 5 new submissions, 3 acceptances, and 3 rejections. 2 papers have been returned to the authors for revision and resubmission. There are 3 resubmissions under review, and 4 papers undergoing initial review. Of the 7 papers in process, all but 2 have been with the Associate Editors for less than 3 months.

The Associate Editors are Paul Fishwick (University of Florida), Marvin Nakayama (New Jersey Institute of Technology), and Harriet Black Nembhard (University of Wisconsin-Madison).

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## Report on the Simulation Area for *Operations Research*

Respectfully submitted by Michael Fu, Area Editor, October 7, 2002

Activity in the Simulation Area of Operations Research -  
March 21, 2003 to October 11, 2003

For the period specified, there were 10 new submissions and 4 resubmissions.

For decisions on manuscripts made during the period, there were 7 rejections, 5 revise/resubmit recommendations, and 0 acceptances. Of the 12 decisions made during the period, 4 were late and 1 very late, where late and very late are defined as having spent over 3 and 6 months, respectively, with the Associate Editor.

The Associate Editors in the Simulation Area are Sigrun Andradottir, Peter Haas, Jian-Qiang Hu, Sheldon Jacobson, and Jack Kleijnen.

At present, there are 5 manuscripts under review, of which 4 are considered late and 0 are considered very late.

A note to prospective authors:

Please submit your manuscripts to me electronically ([mfu@rhsmith.umd.edu](mailto:mfu@rhsmith.umd.edu)), preferably in pdf format.

Respectfully submitted by Michael Fu, Operations Research Simulation Area Editor

# Report on the Stochastic Models and Simulation Department for *Management Science*

By Paul Glasserman, Departmental Editor, October 22, 2003

The Stochastic Models and Simulation Department of *Management Science* seeks high-quality papers dealing with all aspects of stochastic models and simulation relevant to the practice or theory of management science. The department is particularly interested in papers dealing with new areas of application. The department's editorial objectives appeared in the September 1998 issue of the journal. Authors can submit their paper to the Departmental Editor either by electronic mail (as one self-contained TeX or LaTeX or postscript file, without encoding) or by regular mail (in four hardcopies).

Authors must adhere to the submission guidelines given in the journal, especially regarding the formatting and length of the papers.

From the date of our last report for this newsletter March 28, 2003 to date, there were 15 new submissions, of which 6 are still under review, 9 were rejected and 2 was withdrawn. Three papers have been accepted for publication.

Our Associate Editors for the Department continue to be: Thanos Avramidis (University of Montreal), Jim Dai (Georgia Tech), Michael Fu (University of Maryland), Perwez Shahabuddin (Columbia University), Jan van Mieghem (Northwestern University), Garrett van Ryzin (Columbia University), Tava Lennon Olsen (University of Washington), Stefanos Zenios (Stanford University), Felisa Vazquez-Abad (University of Montreal), and Steve Chick (INSEAD).

*Marina Tourevski*, for

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## Call for Sessions: INFORMS Annual Meeting October 24-27, 2004 Adam's Mark Hotel, Denver Colorado

*From Russell Barton*

Denver has been called a "cow town," but it's actually a sophisticated city with the most highly educated population in the US. The Denver Arts Complex, the largest performing arts center in the world under one roof, houses the symphony, opera, dance and theater. And, of course, Denver is a real sports town, with three new stadiums and great national teams. While Denver is one of America's youngest cities, it has retained a surprising number of historical structures. Many of them are concentrated in lower downtown, known as "LoDo," where Victorian buildings have been transformed into a popular district with restaurants, jazz and comedy clubs, outdoor cafes and brewpubs. The meeting headquarters, the Adam's Mark Hotel, is located right in the middle of it all, along the 16th

Street Pedestrian Mall. You can walk down the Mall or take the free shuttle service to the LoDo district.

Volunteer to organize a session for the simulation cluster! Contact Russell Barton (rbarton@psu.edu) with session information, including the presenting authors (speakers) and paper titles. Abstracts would be useful but are not absolutely necessary at this time.

For more information on the conference, go to:

<http://www.informs.org/Conf/Denver2004/about.htm>

The Denver conference General Chair is Manuel Laguna (laguna@colorado.edu).

## Major Contributions Made to the Simulation Archive This Fall

By Jim Wilson

Established in 1998 with the sponsorship of the INFORMS--College on Simulation, the Simulation Archive of the North Carolina State University (NCSU) Libraries has received major contributions this fall. In late August 2003, the Simulation Archive received many of the books and papers of the late Alan Pritsker through the coordinated efforts of Jean J. O'Reilly of Mapics, Inc.; Professor Bruce Schmeiser of the School of Industrial Engineering at Purdue University; and Lois Black, the Assistant Curator of the NCSU Libraries.

In mid-October 2003, Julian Reitman and his wife Frieda visited the Simulation Archive and spent the day with Jim and Liz Wilson. At that time Julian contributed all his books and papers on the Winter Simulation Conference and on the development of the GPSS-Norden simulation system. As a part of Julie's visit, Lois Black arranged for a tape recorded interview of Julie by Jim Wilson. The subject of the interview was the founding of the Conference on Applications of the General Purpose Simulation System (the 1967 predecessor of WSC) and the establishment of the IEEE Systems, Man, and Cybernetics Society. Julie was the Program Chair of the 1967 predecessor of WSC. Moreover, he was the longest-serving member of the organization that ultimately came to be known as the WSC Board of Directors, serving from 1967 to 1985. In conjunction with the visit of Julie and Frieda Reitman to NCSU, Dave Goldsman and Jim Wilson

made a contribution to the Friends of the NCSU Libraries for support of the Simulation Archive on behalf of the INFORMS--College on Simulation.

In late November 2003, Bob Sargent will visit NCSU to establish the Robert G. Sargent Collection within the Simulation Archive. Bob will contribute all his professional papers as well as his complete professional library of almost 500 books spanning a broad range of topics in the field of discrete and combined discrete-continuous system simulation. Included in the Sargent Collection will be a complete set of the Proceedings of the Winter Simulation Conference. We anticipate that having all this material housed together within the Simulation Archive will significantly enhance the value of the Archive to future researchers and historians of science and engineering. At the request of Lois Black, Jim Wilson is also preparing for a lengthy interview of Bob Sargent on the evolution of the field of simulation during the course of Bob's career.

In the spring of 2004, Dick Nance will visit his alma mater, the NCSU Department Industrial Engineering, in connection with the establishment of the Richard E. Nance Collection within the Simulation Archive. In light of all these recent contributions, the Simulation Archive is rapidly becoming a valuable resource for the international simulation community.

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## Job Openings in Simulation

**Université de Montréal**  
**Faculté des arts et des sciences**  
**Department of Computer Science and**  
**Operations Research**

The DIRO (Département d'informatique et de recherche opérationnelle - Department of Computer Science and Operations Research) invites applications for a tenure-track position in the area of Stochastic Modelling and Optimization. Applicants seeking positions at the Assistant Professor level will have priority.

Beyond demonstrating a clear potential for outstanding research, the successful candidate must be committed to excellence in teaching. The candidate is expected to have a working knowledge of French, and be prepared to teach and supervise students in French within one year.

The Université de Montréal is the leading French-language university in North America. The DIRO offers B.Sc., M.Sc., and Ph.D. degrees in Computer Science and Operations Research, a B.Sc. in Bioinformatics, several bidisciplinary B.Sc. degrees, as well as an M.Sc. in electronic commerce. With 45

faculty members, 600 undergraduates and close to 200 graduate students, the DIRO is one of the largest Computer Science departments in Canada as well as one of the most active in research. Research interests of current faculty include bioinformatics, computer networking, intelligent tutoring systems, computer architecture, software engineering, artificial intelligence, computational linguistics, computer graphics, vision and solid modelling, automatic learning, theoretical and quantum computing, parallelism, optimization, and simulation. See <http://www.iro.umontreal.ca>.

**Task:** Undergraduate and graduate teaching, research and supervision of graduate students.

**Requirements:** Ph.D. in Operations Research or a related area.

**Salary:** Starting salary is competitive and fringe benefits are excellent.

**Starting date:** June 1<sup>st</sup>, 2004 - Subject to budgetary approval.

Hardcopy applications including a curriculum vitae, a description of the candidate's current research program, at least three letters of reference, and up to three selected preprints/reprints, should be sent to:

Pierre McKenzie, professeur et directeur  
Département d'informatique et de recherche  
opérationnelle, FAS  
Université de Montréal  
C.P. 6128, Succursale Centre-Ville  
Montréal (Québec) Canada H3C 3J7

by **January 15<sup>th</sup>, 2004**. Applications received after that date may be considered until the position is filled.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. The Université de Montréal is committed to equity in employment and encourages applications from qualified women.

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## PhD Thesis Fellowship

The Department of Statistics at the Vienna University of Economics expects to appoint a research fellow in the context of a research project funded by the Austrian Science fund (FWF). Aim of our project is

the development and analysis of universal methods for nonuniform random variate generation. Universal (also called automatic or black-box) methods work for large classes of distributions. We want to continue our research work and are now interested in the design of generators

- for multivariate distributions,
- algorithms with fast setup,
- for Markov chain Monte Carlo methods,
- nonuniform quasi-random numbers (sequences with low F-discrepancy).

Furthermore we want to improve the theoretical foundation of the underlying transformation processes (including aspects of floating point arithmetic) and build a reliable and portable library for all important automatic generators. For further information see <http://statistik.wu-wien.ac.at/arvag/>.

Successful applicants will contribute ongoing research on black-box algorithms for generation of non-uniform random variates. A M.Sc. (or equivalent) and evidence of high potential for research in Applied Mathematics are required. A background on random number generation and implementing numerical algorithms in some high level programming language would be ideal.

This will be a two-year appointment, with the possibility of a third-year extension. The salary, after taxes and social security payments, will be about 15,000 Euro per annum.

For further information please contact Josef Leydold ([leydold@statistik.wu-wien.ac.at](mailto:leydold@statistik.wu-wien.ac.at)).

Applications including a letter of application and a curriculum vitae should be sent to (preferably by email; no DOC files, please)

Josef Leydold  
email: [leydold@statistik.wu-wien.ac.at](mailto:leydold@statistik.wu-wien.ac.at)

Department of Statistics,  
University of Economics and Business Administration,  
Augasse 2-6, A-1090 Vienna, Austria  
phone: (+43) 1 31336 4695  
FAX: (+43) 1 31336 738

Deadline: November 28th, 2003.

## Annual Defense Modeling And Simulation Award Winners Announced

Four winners have been selected for the fifth annual Department of Defense (DoD) Modeling and Simulation (M&S) Awards. The awards were presented by Dr. Ronald Sega, Director of Defense Research and Engineering and chair of the DoD Executive Council for M&S, at a ceremony at the Pentagon, Sept. 29, 2003.

The awards recognize achievement during 2002 in support of DoD M&S objectives. Seventy-six nominations were received from across the DoD.

Winners were selected in four categories -- training, analysis, acquisition and cross-function, which recognizes those broader endeavors that impact multiple aspects of the overall DoD M&S effort.

### WINNERS

**Acquisition** -- The Missile Defense Agency's Enterprise Strategy for Modeling and Simulation. At the forefront of the DoD Transformation initiative, the MDA, in Washington, DC, employed M&S at the enterprise level to support the evolutionary block acquisition of the Nation's integrated ballistic missile defense system.

**Analysis** -- The Threat Signal Processor-in-the-Loop (T-SPIL) Team of the Naval Air Warfare Weapons Division, Naval Air Systems Command, China Lake, Calif. The team's design, development and successful application of a ground-breaking simulation technique has the potential to revolutionize how the U.S. designs and develops electro-optic and infrared countermeasures against man-portable air defense systems.

**Training** -- The Air Force Research Laboratory's Training Systems Technology Team, Mesa, Ariz. The team developed a world-class training research and development program for the Air Force that assesses the value of Distributed Mission Training, integrates performance measurement systems, and, using virtual training simulation environments, defines the mission essential competencies that warfighters need to accomplish their combat missions.

**Cross-Function** -- Dr. Gene E. Layman, Naval Research Laboratory, Washington, DC. Dr. Layman developed advanced concepts and technologies for managing simulated data within command, control, communications, computers and intelligence (C4I) systems, and advanced the understanding of C4I-to-simulation interoperability and embedding simulations within C4I systems.

### BACKGROUND INFORMATION

The DoD M&S Awards program was initiated by the DMSO in 1998 on behalf of the Under Secretary of Defense for Acquisition, Technology and Logistics:

- to enhance M&S awareness throughout the DoD, and
- to recognize excellence, innovation and achievement in advancing the "state of the art" of M&S and/or in contributing to interoperability and reuse in support of DoD M&S objectives.

This includes, but is not limited to, the development of standards and architectures; techniques and tools; synthetic environments; and new military applications.

All units, organizational elements and individuals -- both civilian employees and active duty service members -- of the DoD Components that are involved with the development and/or use of M&S are eligible.

For more information on the DoD M&S Awards program visit <http://www.dmsomil/public/community/awards/> or contact the DMSO at (703) 824-3437, or [pao@dmsomil](mailto:pao@dmsomil).

### NONGOVERNMENT AWARDS

The National Training Systems Association (NTSA) sponsors a corresponding set of M&S Awards for industry, academia and non-DoD government practitioners in support of DoD M&S. For information and a list of the non-DoD award winners visit the NTSA Web site at <http://www.trainingsystems.org/nomform.cfm>

## INFORMS College on Simulation E-mail Directory

E-mail listings for College on Simulation members that allow their names to be published are available electronically at the WWW site:

<http://www.rit.edu/~mekeie/icsemail.html>

The list is created automatically by querying the *INFORMS* registration database. The address of the

INFORMS page for updating your address is: <http://www.informs.org/Dir/coa.html>. If you have questions or difficulties, please contact Mike Kuhl (see cover for contact details). If you are unsure whether or not your membership is current, contact Steve Chick (see cover for contact details) for confirmation.

# Event Calendar

By Michael Kuhl, Associate Newsletter Editor, November 7, 2003

WSC 2003: Winter Simulation Conference, New Orleans, Louisiana, December 7-10, 2003. WWW: <http://www.wintersim.org>

2004 Western Simulation MultiConference, San Diego, California, January 18-21, 2004. Contact: Hamid Vakilzadian, Email: [hvakilzadian@unl.edu](mailto:hvakilzadian@unl.edu). WWW: <http://www.scs.org/confernc/wmc/wmc04/cfp/wmc04.htm>

IASTED International Conference on Modelling and Simulation, Marina del Rey, CA, California, March 1-3, 2004. WWW: <http://www.iasted.com/conferences/2004/marina/ms.htm>

FUBUTEC'2004 Future Business Technology. Fontainebleau, France, March 12-13, 2004, INSEAD, WWW: <http://biomath.rug.ac.be/~eurosis/conf/fubutec/fubutec2004/index.html>

Simulation Solutions Conference '04, Orlando, Florida, March 15 - 16, 2004. Email: [simsol@iienet.org](mailto:simsol@iienet.org). WWW: <http://www.simsol.org>

2004 Advanced Simulation Technology Conference, Arlington, Virginia, April 18 - 22, 2004. Contact: John A. Hamilton, Jr. Email: [hamilton@eng.auburn.edu](mailto:hamilton@eng.auburn.edu). WWW: <http://www.scs.org/confernc/astc/astc04/cfp/astc04.htm>

37th Annual Simulation Symposium (part of ASTC 2004), Arlington, Virginia, April 18 - 22, 2004. Contact: Prof. Taieb Znati [znati@cs.pitt.edu](mailto:znati@cs.pitt.edu). WWW: <http://www.scs.org/confernc/astc/astc04/cfp/anss04.htm>

EUROMEDIA 2004 Hasselt, Belgium, April 19-21, 2004, in cooperation with the University of Limburg Diepenbeek, Belgium WWW: <http://biomath.ugent.be/~eurosis/conf/euromedia/euromedia2004/index.html>

2004 Spring Simulation Interoperability Workshop, Arlington, Virginia, April 18-23, 2004. WWW: <http://www.sisostds.org/conference/index.cfm?conf=04SPRING>

INFORMS Conference on OR/MS Practice, Cambridge, Massachusetts, April 25-27, 2004. Contact: [meetings@informs.org](mailto:meetings@informs.org). WWW: <http://www.informs.org/Conf/Practice04/>

Agent-Based Simulation 5, Lisbon, Portugal, May 3-5, 2004. Contact: Rainer Rimane, Email: [rimane@cs.fau.de](mailto:rimane@cs.fau.de) WWW: <http://www.scs-europe.org/conf/abs2004/index.html>

IIE Annual Conference, Houston, Texas, May 15-19, 2004. WWW: <http://www.iienet.org/annual/>

Canadian Operational Research Society (CORS)/INFORMS International Meeting, Banff, Alberta, Canada, May 16-19, 2004. WWW: <http://www.informs.org/Conf/CORS>

18th Workshop on Parallel and Distributed Simulation, Kufstein, Austria, May 16-19, 2004, Contact: Johannes Lüthi Email: [Johannes.Luethi@fh-kufstein.ac.at](mailto:Johannes.Luethi@fh-kufstein.ac.at), WWW: <http://fakinf.informatik.unibw-muenchen.de/~inf4www/projekte/pads2004/>

SimTecT 2004, Canberra, Australia, May 24-27, 2004. Contact: Conference secretariat [simtect@consec.com.au](mailto:simtect@consec.com.au) WWW: <http://www.siaa.asn.au/simtect/2004/2004.htm>

ISC 2004 (2nd International Industrial Simulation Conference), Malaga, Spain, June 7-9, 2004, in cooperation with the University of Malaga, WWW: <http://biomath.ugent.be/~eurosis/conf/isc/isc2004/index.html>

18th European Simulation Multiconference, Magdeburg, Germany, June 13-16, 2004. WWW: <http://www.wisg.cs.uni-magdeburg.de/sim/esm2004/index.html>

FOODSIM 2004 (3rd International Conference on Simulation in the Food Industry), Ede, The Netherlands, June 16-18, 2004. WWW: <http://www.nizo.nl>

2004 SIAM Annual, Portland, Oregon, July 12-16, 2004. Contact: [meetings@siam.org](mailto:meetings@siam.org). WWW: <http://www.siam.org/meetings/an04>

2004 Summer Computer Simulation Conference, San Jose, California, July 25-29, 2004. Contact: Agostino Bruzzone, Email: [agostino@itim.unige.it](mailto:agostino@itim.unige.it). WWW: <http://www.scs.org/confernc/ssimc/ssimc04/cfp/scsc04.htm>

Fifth St. Petersburg Workshop on Simulation, St. Petersburg, Russia, June 2005. Contact: Prof. Viatcheslav B. Melas. Email: [v.melas@pobox.spbu.ru](mailto:v.melas@pobox.spbu.ru). WWW: <http://vega.math.spbu.ru/~pepelyshev/index.html>



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