In the spirit of, "you can't know where you're going unless you know where you've been," the first thing I did upon becoming President of the TIMS College on Simulation was to collect as many editions of the Newsletter as I could and read them. The Newsletter is the only written record of who we are, what we have done, and what we intend to do. The following is a review.

Volume 1, No. 1 of the Newsletter was published in the Summer of 1976. Averill Law and Bruce Schmeiser were the editors. There have been at least two issues a year since then, sometimes three. I am missing Vol. 2, No. 2 (and No. 3 if it exists), all of Vol. 3, Vol. 5, No. 1, and perhaps other No. 3s since I do not know what years had them. If anyone can supply copies please send them to me; I would like to pass this archive along to future Presidents.

Fortunately our bureaucracy is small. Here is a list of our officers and active committees:

**Office or Committee**

- **Office Holder**
  - President: Barry L. Nelson
  - Vice-President/President-Elect: David Goldsman
  - Secretary-Treasurer: James J. Swain
  - WSC Board Representative: Steve Roberts
  - Service Award Committee: Turn Schriber (year 3), Bob Sargent (year 2, chair), Dick Nance (year 1)
  - Publication Award Committee: Doug Miller (year 3), Jim Wilson (year 2, chair), Luc Devroye (year 1)
  - Minority Affairs Committee: David Withers (chair), Laurel Travis, Gary Kochman

We do not always follow our own rules. Here are some changes I will propose to make the Bylaws match our current practice:

1. Non-TIMS members of the TIMS College on Simulation may vote and hold office.
2. The Secretary and Treasurer are one office, Secretary-Treasurer.
3. The Nominating Committee shall consist of the President and Vice-President.
4. Eliminate the Publications Committee.
5. Eliminate the requirement that the Executive Committee meet at least twice a year.

[continued on p. 6]
Editor’s Corner

Welcome to the Fall issue of the TIMS College on Simulation (TCS) Newsletter. As you may know, this issue is my first as editor and, wanting to start on the right foot, I would like to thank those individuals who have helped to show me the ropes as well as those who have helped in putting this newsletter together. In particular, I would like to thank Jim Swain for his fine tutelage over the past two years. Jim did a superb job as editor of this newsletter and, in the process, has set a very high standard for the TCS Newsletter; a standard which I hope we will be able to live up to over the next two years. He deserves our heartfelt appreciation. I would also like to thank the past officers of the College for their help in supporting Jim in his efforts. Their cooperation helped make Jim’s job easier. A special thanks needs to go out to the Associate Editor, John Charnes, for contributing to this issue in spite of the best efforts of hurricane Andrew. Finally, I would like to thank all of the present officers of the College for their support and timely help in putting this issue together.

The goal of the TCS Newsletter is to report activities of the College, and related events that may be of interest, to its members. Thus, the TCS Newsletter serves as a written record of “who we are” and “where we are going.” (see President’s Message in this issue by Barry Nelson). In keeping this service role in mind, we continue the practice of printing short articles of general interest to the members of the College. In this issue we offer an article by Julian Reitman on the history of the very first Winter Simulation Conference in 1967. Especially in this year, the 25th Anniversary of the Winter [continued on p.6]
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Some Aspects of the 1967 GPSS Simulation Conference

By Julian Reitman

Twenty-five years ago discrete event simulation was not part of the main streams of either computer theory or applications. In those days of bundled software, IBM users cooperated through the SHARE organization to improve how IBM software was used. One SHARE subgroup addressed discrete and continuous simulation and concentrated on IBM's GPSS rather than SIMSCRIPT or SIMULA.

SHARE provided a limited opportunity to exchange information. It did not help establish a simulation literature. The obvious need was for a symposium on the usage of discrete event simulation. At that time GPSS was also available from other hardware suppliers. This required an approach of establishing a larger coordinating organization to include in addition to SHARE, the Systems, Man, and Cybernetics and Computer Groups in IEEE, the simulation group in ACM, and any other organization that might have a kindred interest.

Arnold Ockene of IBM provided the critical support and spent considerable effort establishing a structure for the conference. One measure of Ockene's success was a registration fee of $30 for the two-day conference, luncheons included, at the New York Hilton and a capacity attendance of 401. Harold Hixson of the Air Force was coordinating the SHARE efforts in simulation, so it was natural for him to be General Chairman. I assumed the task of organizing the first program using contacts from SHARE, IBM, IEEE, and ACM. As a result of selecting those individuals where simulation had been useful, participants in the conference came from industry, not academe. Another reason was to avoid the academic discussion of "my simulation language is better than yours," as new languages were being offered in great profusion.

Thirty-five presentations were distributed over two days, fourteen in a plenary session the first day and twenty the next day in parallel morning and afternoon sessions. A panel discussion, part of the luncheon, provided me with a keen insight into Geoffrey Gordon's approach and concept. He felt that the language should be so simple that an engineer could learn from the manual without significant additional support. By then, I had enough experience modeling complex systems to be convinced that was impractical. GPSS was not used to model simple systems, like barber shops. Instead, it was applied to extremely complex systems that did not lend themselves to available alternative theoretical solutions. Simulation of complex systems required skilled individuals, more likely collaborating teams, to produce a useful output. Unfortunately, there has been the desire to model complex systems simply. Therefore, it is no surprise that results are both simple and useless. That conference provided a most useful forum for the discussion of difficult issues that needed to be resolved when modeling highly complex systems. That conference's success has helped to establish the foundations for those conferences that followed.

Editorial Policy Statement for the Simulation Area of Operations Research

The Simulation Area focuses on digital-computer modeling and analysis of stochastic systems to estimate performance measures. Both dynamic-system simulation and Monte Carlo simulation of models having no time component are considered. Simulation games, simulation trainers, and deterministic difference- or differential-equation simulations lie outside the area.

Issues of interest include, but are not limited to, uniform \((0,1)\) random number generation, selection of input models, random-variate and random-process generation, language and environment design, data structures, verification, validation, initial-transient bias amelioration, standard error estimation, confidence and prediction interval procedures, variance reduction, metamodels, simulation optimization over discrete feasible regions, and simulation optimization over continuous feasible regions, in-

[continued on p. 21]
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President's Message
[continued from p. 1]

Here is where in the Newsletter you can find key legislation that defines what we do and how we do it:

Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Newsletter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Award procedure</td>
<td>Fall 1985</td>
</tr>
<tr>
<td>amendment: pay winner travel</td>
<td>Spring 1990</td>
</tr>
<tr>
<td>Paper Award procedure</td>
<td>Fall 1980</td>
</tr>
<tr>
<td>Publication Award procedure</td>
<td>Fall 1985</td>
</tr>
<tr>
<td>amendment: pay committee expenses</td>
<td>Spring 1987</td>
</tr>
<tr>
<td>amendment: pay winner travel</td>
<td>Spring 1990</td>
</tr>
<tr>
<td>amendment: extend to previous 4 years</td>
<td>Spring 1992</td>
</tr>
<tr>
<td>College Bylaws</td>
<td>Fall 1987</td>
</tr>
<tr>
<td>amendment: Non-TIMS members for $3</td>
<td>Spring 1988</td>
</tr>
<tr>
<td>WSC dissertation colloquium pays $50</td>
<td>Fall 1990</td>
</tr>
<tr>
<td>amendment: increase to $100</td>
<td>Fall 1991</td>
</tr>
</tbody>
</table>

Here are the key dates when things happen:

- Petitions to nominate a candidate—February 1
- Completion of balloting—Spring business meeting
- Beginning of new two-year term of office—June 1
- Nominations for Service Award—September 1
- Nominations for Publication Award—September 1

We give two awards, one for publication and one for service. The publication award was originally just for publications in Management Science, but in 1987 it was broadened to include any outlet. Here is a list of as many of the past award winners as I could reconstruct.

Year | Outstanding Simulation Publication Award
1981  | Lee Schruben
1982  | Stephen S. Lavenberg and Peter D. Welch
1983  | Marc Meketon/Philip Heidelberger
      | Averill Law/W. David Kelton
1984  | none given
1985  | James Wilson and Alan Pritsker
1986  | none given
1987  | Lee Schruben
1988  | Bernard P. Zeigler
1989  | Luc Devroye
1990  | X. Cao, P. Heidelberger, R. Suri, M. Zazanis
1991  | Ward Whitt

Year | Award for Outstanding Service
1986  | John McLeod
1987  | Richard Nance
1988  | Robert Sargent
1989  | Harold Highland
1990  | George S. Fishman
1991  | A. Alan B. Pritsker

Where are we going? The first message of every past Chairman/President said, in effect, we are doing well, I do not want to change us, just improve us a little more. This appears to be a winning formula, because we have an active, vital College. One of our strengths is that we take on activities that we can handle, and cut our losses when we find that something does not work.

I have high hopes for our initiative to aid women and underrepresented minorities which will sponsor a group to attend WSC '92. This effort is consistent with what we do best: promote and publicize the field of simulation. The publication award, service award, dissertation colloquium, Newsletter, and our sponsorship of WSC and of TIMS/ORSA sessions are prime examples.

On a personal note, I want to thank Past-President David Kelton for his service to the College. I will be spending a year sabbatical with him at the University of Minnesota beginning this Fall so that he will be within arm's reach when I panic. David Goldman will serve as Vice-President with primary responsibility for organizing sessions at TIMS/ORSA meetings. Secretary-Treasurer Jim Swain will manage our finances, and Jeff Tew will publish the Newsletter with the help of John Charnes. Thanks to all of you.

Editor's Corner
[continued from p. 2]

Simulation Conference, I find articles offering such a historical perspective to be very interesting. In future issues we hope to offer other articles of general interest on a variety of topics. If you would like to contribute such an article, or if you would just like to make a suggestion for a future article, please contact either editor. We hope to hear from you in the near future.

I want to remind members (and nonmembers) of the College that the Business Meeting will be held at the ORSA/TIMS Joint National Meeting in San Francisco on Tuesday, November 3, from 5:45 to 6:45 p.m. in the Saratoga room. Refreshments will be served and all are invited to attend.

Please send your paper abstracts, book reviews, announcements, suggestions, and other materials to either editor. We accept material in any medium but prefer electronic submissions. The editorial deadline for the Spring issue is 15 March 1993.

—jdt
The Winter Simulation Conference is a unique opportunity for everyone with an interest in computer simulation. The conference focuses on discrete and combined discrete-continuous simulation. These techniques are used to design and analyze diverse operations involving, for example, manufacturing, computer and communication systems, transportation, distribution, health-care delivery, military systems, and production and inventory control.

For the Newcomer
A separate program track addresses the costs and benefits of simulation: what it can do, what it takes to get started, how to evaluate simulation software, how to create and use models, and how to conduct analyses and present the results.

For the Expert
State-of-the-Art Reviews report recent fundamental advances in the field. Sessions on Modeling and Analysis Methodology cover the latest techniques for building and analyzing simulation models.

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TIMS College on Simulation Sponsored Sessions for ORSA/TIMS San Francisco

Below is the complete session information for the sessions sponsored by the TIMS College on Simulation for the ORSA/TIMS joint National Meeting to be held November 1-4, 1992 at the San Francisco Hilton Hotel.

Session 1
Monday, Nov. 2, 8:00-9:15 a.m.
Model Development Strategies/Techniques for Discrete-Event Simulation
Chair: David Withers [x] ORSA [x] TIMS
Mead Data Central
9443 Springboro Pike
P.O. Box 993
Dayton, OH 45401

Paper #1
Hierarchical Modeling for Discrete Event Simulation
Joe H. Mize and David B. Pratt [x] TIMS
Industrial Engineering and Management
Oklahoma State University
Stillwater, OK 74078

An advanced modeling and simulation environment is described that capitalizes on the advantages of the object-oriented paradigm to perform top-down analysis and bottom-up model construction. Applied to hierarchical systems, the environment features separate and distinct modeling constructs for physical, information, and control elements of the system.

Paper #2
Object-Oriented Simulation for Manufacturing Systems
T.C. Chang and J.P. Shewchuk
School of Industrial Engineering
Purdue University
West Lafayette, IN 47907

In this talk, the design and the implementation of an object-oriented simulation system is presented. Both the motivation for system development and implementation specifics are discussed. The simulator, written in C++, is intended to receive alternative process plans, simulate cell operation in detail and control the cell.

Paper #3
Issues in Hierarchical Modeling with Procedural Languages
David H. Withers [x] TIMS [x] ORSA
Mead Data Central
9393 Springboro Pike
P.O. Box 933
Dayton, OH 45401

This paper investigates implementation of hierarchical modeling using procedural discrete event simulation languages including graphical representation of queuing networks with sub-models. Four options are considered: macro expansion, re-entrant sub-models, replicated sub-models, and data driven general purpose routines. Each is evaluated with respect to ease of development, computational efficiency, and ease of maintenance.

Session 2
Monday, November 2, 9:30-10:45 a.m.
Methodology for Large Scale Simulation and Monte Carlo Experiments
Chair: Lee Schruben [x] TIMS
School of Operations Research and Industrial Engineering
Cornell University
Ithaca, NY 14853

Paper #1
Performance of the Gibbs, Hit-and-Run, and Metropolis Samplers
Ming-Hui Chen
Department of Statistics
Purdue University
West Lafayette, IN 47907

Bruce Schmeiser [x] TIMS
School of Industrial Engineering
Purdue University
West Lafayette, IN 47907

We investigate the performance of three Markov-chain Monte-Carlo samplers in the context of estimating multi-dimensional integrals. We derive a sufficient condition for geometric convergence, empirically compare standard errors, and discuss practical issues such as initial bias, run lengths, number of runs, and standard-error estimation.

Paper #2
Approximating Simulation Model Input/Output Functions with Metamodels
Russell R. Barton [x] ORSA
Dept. of Industrial and Management Systems Engineering
The Pennsylvania State University
207 Hammond Building
University Park, PA 16802

Metamodels are used to gain insight about a simulated process, to validate simulation model behavior, or to provide a fast running approximation for real time interactive analysis and design. We will discuss practical issues in using several metamodeling approaches, including polynomial models, spline smoothing, and kernel smoothing.

Paper #3
Establishing a Truncation Amount: Synchronization Points and Initial Bias
Frank Chance [x] ORSA
Cornell University
Ithaca, NY 14853

Steady-state analysis of simulation output assumes that any non-stationarity in the initial portion of output has been
effectively truncated. With large simulations it is expensive to truncate significant amounts of data and difficult to ascertain rigorously the amount of truncation required. We propose a new approach, applicable in queuing systems, whereby a truncation point is given that supplies a guaranteed bound on the probability of admitting bias into the output data.

Session 3
Monday, Nov. 2, 1:15-2:30 p.m.
Gradient Estimation
Chair: Michael Fu [x] ORSA
College of Business and Management
University of Maryland
College Park, MD 20742

Paper #1
Uniform Convergence of Cost and Derivative Estimators in a Class of Parametric Regenerative Systems
Peter Glynn [x] TIMS
Operations Research Department
Stanford University
Stanford, CA 94305

Pierre L’Ecuyer [x] TIMS
Dept. IRO
University of Montreal
Montreal, Canada

We consider a stochastic process whose evolution depends on a continuous parameter \( c \) and provide conditions under which the sample finite-horizon average cost, over horizon \( t \), as well as its derivative with respect to \( c \), are estimators of their infinite-horizon counterparts with variance and squared bias in \( O(1/t) \), uniformly in \( c \). These results are useful in stochastic optimization contexts.

Paper #2
Gradient Estimation and Optimization of Continuous Flow Models for Tandem Production Lines
Rajan Suri [x] ORSA
Ron-Ruey Fu
Department of Industrial Engineering
University of Wisconsin
Madison, WI 53706

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Paper #3
Likelihood Ratio Methods Via Conditional Monte Carlo and Splitting
Michael C. Fu [x] ORSA
College of Business and Management
University of Maryland
College Park, MD 20742

Jian-Qiang Hu [x] ORSA
Department of Manufacturing Engineering
Boston University
Boston, MA 02215

Leyuan Shi [x] ORSA
Division of Applied Sciences
Harvard University
Cambridge, MA 02138

We discuss a novel derivative estimator based on Likelihood Ratio (LR) methods. By applying conditional Monte Carlo and splitting techniques, we derive an LR gradient estimator with reduced variance. Thus, to a large extent, our methodology can be viewed as a variance reduction technique for LR methods. In addition, we establish a connection between the resulting estimator and smoothed perturbation analysis (SPA) estimators.

Session 4
Monday, Nov. 2, 2:45-4:00 p.m.
Using Nonhomogeneous Input Processes to Facilitate Simulation Experiments
Chair: Michael P. Bailey
Code or/ba
Naval Postgraduate School
Monterey, CA 93943-5000

Paper #1
Some Results on a Single Server Queue with Exponential Cyclic Arrival and Service Times
Douglas J Morrice
Ravindra S. Gajulapalli
Department of Management Science and Information Systems
The University of Texas at Austin
Austin, Texas 78712-1175

In this paper we consider a single server FIFO queue with exponential interarrival and service times where arrival and/or service rates are cyclic functions of the customer sequence number. Some steady state results are provided for the mean number in system. We also provide bounds on the waiting time in the queue for configurations where it is difficult to obtain exact steady state results.

Paper #2
Using Ramped Workload Intensity Processes to Design Discrete Service Systems
Michael P. Bailey
Code or/ba
Naval Postgraduate School
Monterey, CA 93943-5000

In this paper, we discuss some experimental procedures for comparing the capabilities of different discrete event service systems. An importance sampling scheme is developed based on a ramping workload intensity to drive the system under examination from underutilized to over capacitated. Two methods of output analysis are developed which provide input to ranking schemes so that the superior service system may be identified. Multiplication by likelihood ratios is used to translate the schemes to measures for steady state systems.

Paper #3
The Global Simulation Clock Time as the Frequency Domain Experiment Oscillation Index
Mousumi Mitra
Lockheed Engineering & Sciences Company
M.S. 161
NASA Langley Research Center
Hampton, Virginia 23665

Stephen K. Park
Department of Computer Science
College of William & Mary
Williamsburg, Virginia 23185

In a frequency domain simulation experiment (FDE) selected system parameters are oscillated sinusoidally at assigned frequencies. A new method for performing FDE which uses the simulation time clock as the oscillation index is presented. The new method is applicable to any system that has a non-homogeneous periodic Poisson process as input. Results of applying the new method to perform FDE of several systems are presented.

Session 5
Tuesday, Nov. 3, 8:00-9:15 a.m.
Simulation Methodology
Chair: George S. Fishman [x] TIMS
Department of Operations Research
Smith Building 128A
University of North Carolina
Chapel Hill, NC 27599

Paper #1
A Splitting Scheme for Control Variates
Athanasios N. Avramidis
School of Industrial Engineering
Purdue University
West Lafayette, IN 47907

James R. Wilson [x] TIMS
Department of Industrial Engineering
North Carolina State University
Raleigh, NC 27695

We describe a new control-variate splitting scheme yielding an unbiased estimator of the mean response, an unbiased estimator of the variance of the first estimator, and an approximate confidence interval for the mean response. We present analytical and empirical performance comparisons of this scheme versus classical control variates.

Paper #2
Selection in the Presence of Serial Correlation
David Goldman [x] TIMS
A. Li
K. Tsui
We generalize the Dudewicz and Zaino procedure for selecting the one of \( k \) stationary processes having the largest mean. In particular, we use batching of observations within each process in an effort to ameliorate the effects of serial correlation; the efficacy of batching is examined analytically and empirically.

**Paper #3**

**Choosing Warm-Up Interval and Sample Size When Generating Monte Carlo Data from a Markov Chain**

George S. Fishman  
Smith Building 128A  
Department of Operations Research  
University of North Carolina  
Chapel Hill, NC 27599

We describe cost-minimizing procedures that guarantee a specified accuracy for estimators when using Markov chain sampling. One plan performs \( n \) independent replications each of \( k \) steps and the state on step \( k \) becomes the datum. An alternative generates a single path of \( k+1 \) steps and uses the path as data.

**Session 6**

**Tuesday, Nov. 3, 9:30-10:45 a.m.**  
**Topics in Simulation Output Analysis**  
Chair: Peter Glynn  
Department of Operations Research  
Stanford University  
Stanford, CA 94305

**Paper #1**

**Variance Reduction in Simulating Transient GI/G/1 Behavior**

Soeren Asmussen  
Aalborg University  
Strandvejen 19, DK-9000  
Aalborg, Denmark

A variety of methods for reducing the variance on Monte Carlo Simulation Output Analysis.

---

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Carlo estimators of the waiting time $W_n$ of the $n$th customer in a GI/G/1 queue are studied. The successful ones involve Spitzer's identity, importance sampling and sums with stratified or controlled randomized length.

**Paper #2**

Using Distributed-Event Parallel Simulation to Study Departures from Many Queues in Series

Albert Greenberg
AT&T Bell Laboratories
Murray Hill, NJ 07974-0636

Otmar Schlunk
Coordinated Science Laboratory
University of Illinois
Urbana, IL 61801

Ward Whitt
AT&T Bell Laboratories
Murray Hill, NJ 07974-0636

We describe an application of a distributed-event approach for speeding up a simulation run to study the departure times for many queues in series. By implementing a parallel-prefix-based algorithm on the 8192-processor CM-2 connection machine, we obtained a simulation rate of about seventeen billion service completions per hour.

---

**Paper #3**

Conditions for the Applicability of the Regenerative Method

Peter W. Glynn [x] TIMS
Don Iglehart
Department of Operations Research
Stanford University
Stanford, CA 94305

The regenerative method (RM) for estimating steady-state parameters via simulation has been widely studied. Our goal in this paper is to develop the weakest known condition under which the RM is valid. This condition is of interest since a number of errors on this subject have appeared in the literature. This paper also discusses the relationship between conditions for the validity of the RM and those for the validity of the standardized times series method.

**Paper #4**

An Optimal Change of Measure in Simulation with Importance Blasing of a Stationary Markov Chain

S. Andradottir [x] ORSA
Department of Industrial Engineering
University of Wisconsin
Madison, WI 53706

D.P. Heyman [x] ORSA
Room 3D-308
Bellcore
331 Newman Springs Road
Red Bank, NJ 07701

T.J. Ott [x] ORSA
Bellcore
Morristown, NJ 07960

Suppose we are using simulation to evaluate a linear function of the (unknown) stationary distribution of a finite Markov chain, and suppose we will use simulation runs of length $T$. We prove that there exists a practically unique change of measure, which depends on $T$, and which when used in importance bladder leads to a reduction of the variance by a factor $O(1/T)$. This optimal change of measure is very hard to compute, but finding reasonably good approximations is feasible.

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S. Raczynski, P.O. Box 22-783, 14000 Mexico D.F., Mexico.
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Status Report on the Simulation Department of Management Science

Since the first of this year, 21 new papers have been submitted to the Simulation Department of Management Science; and editorial work has been completed on 10 papers, with 2 papers accepted and 8 papers rejected. To put these figures in perspective, we note that since January 1, 1988, editorial work has been completed on 69 papers, with 19 papers accepted, 45 papers rejected, and 5 papers withdrawn. Thus, the overall acceptance rate for the Department during the past 4 years and 9 months is about 28 percent, which is slightly higher than the acceptance rate of 20 percent for the entire journal during the same period.

Currently the Simulation Department has 33 papers in process, including 4 tardy papers and no late papers. A paper is considered tardy (respectively, late) when 4 (respectively, 6) months have elapsed without editorial feedback being provided to the author(s). We are making a concerted effort to eliminate tardy and late papers entirely, and we would greatly appreciate the cooperation of all. For the Simulation Department, you should adhere strictly to Littlewood's "zero-infinity" law—that is, when you receive a paper, you should do the following immediately: (a) decide whether or not to review the paper, (b) implement your decision, and (c) communicate to the appropriate Associate Editor the result of implementing your decision.

Jim Wilson will step down as Departmental Editor on December 31, 1992. Gabriel Bitran, the Editor-in-Chief of Management Science, will announce the appointment of a new Departmental Editor within the next two months.
Event Calendar

1992


SESC ’92, Southeastern Simulation Conference, October 22-23. Pensacola Hilton, Pensacola, Florida. Sponsored by The Society for Computer Simulation in cooperation with SPIE. $500 Student Paper Award. Send abstracts now. Includes educational short courses and technical exhibits. Contact Mary Lou Padgett, Auburn University, 1165 Owens Rd., Auburn, AL 36830. Phone: (205) 821-2472 or 3488. e-mail: mpadgett@eng.auburn.edu.

Simulation of Economical Systems, October 26-28. 1st Intercontinental Symposium and Mathematical Modelling Workshop, Schliersee (Munich), Germany. For more information on paper submittal and conference themes contact: Moshe R. Heller, Applied Simulation Technology GmbH, Planegger Strasse 47, Postfach 60 04 38, D-8000 Munchen 60. Phone: 089/8 34 50 73; Fax: 089/8 34 75 75.

CSCW ’92: Computer Supported Cooperative Work 92, November 1-4, Toronto, Canada. Sponsored by ACM, the Association for Computing Machinery, Special Interest Groups CHI and OIS. For further information contact: Marilyn Mantei, CSRI, Rm. 398, Pratt Building, 6 King’s College Road, University of Toronto, Toronto, Ontario, Canada M5S 1A4. Phone: (416) 978-5512; e-mail: mantei@dgp.toronto.edu

SIMTEC ’92: International Simulation Technology Conference 1992, November 4-6. South Shore Harbor/NASA Johnson Space Center, near Houston, TX. WNN92/Houston Sponsor: SCS; Co-sponsor: NASA/JSC; Participating: IEEE-NNC; Co-operating: SPIE and INNS. Paper contest!! Contact: Mary Lou Padgett, Auburn University, 1165 Owens Rd., Auburn, AL 36830. Phone: (205) 821-2472 or 3488. Fax: (205) 844-1809. Email: mpadgett@eng.auburn.edu

WN92/Houston, a Neural Networks conference held in conjunction with SimTec ’92, November 4-6. Sponsor: SCS; Co-sponsor: NASA/JSC; Participating: IEEE-NNC; Co-operating: SPIE and INNS. Users Group Meeting for NETS, a NASA/COSMIC neural networks simulation package. NETS Information: Dr. Robert Shelton (713) 483-5901 (shelton@gothamcity.jsc.nasa.gov). Contact: Mary Lou Padgett, Auburn University, 1165 Owens Rd., Auburn, AL 36830. Phone: (205) 821-2472 or 3488. Fax: (205) 844-1809. Email: mpadgett@eng.auburn.edu

1992 European Simulation Symposium, November 6-8. Dresden, Germany. Sponsored by The Society for Computer Simulation International. For more information contact: The Society for Computer Simulation International, European Simulation Office, c/o Philippe Gerir, University of Ghent, Couperus Links 653, B-9000 Ghent, Belgium. Phone/FAX: 0032.91.234941; email: SCS@BOMATH.RUG.AC.BE

Symposium on Computer Simulation in Industrial Engineering and in Problems of Urban Development, November 18-19. Mexico City, Mexico. Universidad Panamericana and The Society for Computer Simulation sponsor this symposium. For more information contact: Ing. Jose Luis Gonzalez Acuna, Symposium Chairman, Dr. Stanislaw Raczynski, Program Chairman, Universidad Panamericana, Augusto Rodin 498, 03910 Mexico City, Mexico. Phone: 598 33 02; Fax: 563 85 43, Mexico City.

5th ACM SIGSOFT Symposium on Software Development Environments, December 9-11, Washington, DC. Sponsored by ACM, the Association for Computing Machinery, Special Interest Group SOFT. For further information contact: Ian Thomas, Software Design and Analysis, 44 Castro St., Suite 400, Mountain View, CA 94041. Phone: (415) 694-1464; e-mail: thomas@sd.com


1993

International Simulators Conference: High Performance Computing: Grand Challenges in Computer Simulation, March 29-April 1. Arlington, Virginia. Sponsored by The Society for Computer Simulation. Contact: Dr. Adrian Tentner, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439. E-mail: tentner@pepper.re.anl.gov


NECC’93, June 27-30. Orlando, Florida. Sponsored by the National Educational Computing Conference. For further information contact: Donna J. Baumbach, Conference Chair, University of Central Florida, Dept. of Educational Services, Orlando, Fl. 32816-1250, Phone: (407) 823-3275; FAX: (407) 823-3276; bitnet: BAUMBACH@UCF1VM

1993 Summer Computer Simulation Conference, July 19-21. Boston, Massachusetts. Sponsored by The Society for Computer Simulation. Contact Dr. Joel M. Schoen, SCSC ’93 Committee, The MITRE Corporation, 202 Burlington Road, Bedford, MA 01730-1420. Phone: (617) 271-2230; FAX: (617) 271-5173; e-mail: jms@mitre.org
Minutes of College Meeting at TIMS/ORSA Orlando

Members Present: Dave Withers, Jim Wilson, Jim Swain, Kevin Healy, Arne Thesen, Osman Balci, Michael Ketcham, Thanos Avramidis, Laurel Travis, Sigrún Andradóttir, Sheldon Jacobson, Marc Meketon, Gary Kochman, John Charnes, Enver Yucesean, Doug Morris, Peter Haas, Perwez Shahabuddin, Dean Hartley, Barry Nelson, Gordon Clark, Paul Glasserman, John Fowler, Dave Kelton, Raj Veeramani, Dave Goldsman

Nonmembers Present: Onur Ulgen, Bor-Ruey Fu, Yorai Wardi, Murali Shanker
1. Dave Kelton called the meeting to order at 5:48 p.m.
2. Dave Goldsman read the Minutes from the TIMS/CS meeting at the Phoenix 1991 WSC, and they were approved.
3. Dave Goldsman read the Treasurer's Report.
4. Barry Nelson read the Vice President's report on the sponsored sessions. There were seven sessions at the Orlando conference, and they all turned out very well. The Summer Euro/TIMS Conference in Helsinki will have 1 session, and The Fall 1992 ORSA/TIMS Conference in San Francisco will have 6 sessions.
5. Jim Swain reported on the Newsletter. The Spring Newsletter, was 24 pages, a record. Jim encouraged us to vote for officers using the ballot conveniently placed in the Newsletter. He also urged us to thank the Newsletter's advertisers for their support. Jeff Tew will take over as Editor in the Fall. Dave Kelton stated that our College produces the best Newsletter. Dave led the group in a round of applause for Jim.
6. Dave Kelton reported on the Phoenix 1991 WSC. There were over 530 participants. We will receive a surplus of about $3400.
8. Luc Devroye was named as a member of the Outstanding Publication Award Committee. Jim Wilson is the current Chair, and Doug Miller is the third member of the Committee. The nomination deadline for the next award is May 31.
9. Dick Nance was named as a member of the Distinguished Service Award Committee. George Fishman, the current Chair, resigned and will be replaced in the rotation. Tom Schriber is the third member of the Committee.

[continued on p. 20]
Treasurer’s Report

For the period 3/15/92 to 9/1/92, the TIMS College on Simulation had the following transactions at the Wachovia bank of Georgia, Atlanta, GA.

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In addition to the above funds, the College has on account at TIMS Headquarters $1700.00, bringing the TIMS/CS net worth to $26623.75. Respectfully submitted, James Swain, Secretary-Treasurer, September 18, 1992

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Recent Papers in TOMACS

The following is a list of papers recently published in ACM Transactions on Modeling and Computer Simulation.

Volume I, Issue 4: October 1991

Volume II, Issue 1: January 1992
1. “Synchronization Mechanisms for Distributed Event-Driven Computation,” Vijay K. Madisetti and David Hardaker, Georgia Institute of Technology.
3. “Structural and Behavioral Equivalence of Simulation Models,” Lee Schruben, Cornell University, and Enver Yucsesan, European Institute of Business Administration.

ANNOUNCEMENTS

New Book Information


This text is aimed at those readers who wish to acquire a basic knowledge of simulation. The authors combine simulation theory and statistical theory with practical applications to show how certain problems in the areas of management science, operations research, economics, business administration and mathematical statistics can be analyzed by means of simulation. By explaining how to analyze simulation results, it also shows how to arrive at more general conclusions when using simulation. The efficient design of simulation experiments is also discussed.

The book includes examples and definitions of simulation, an introduction to Forrester’s Industrial Dynamics or System Dynamics and the evaluation of pseudorandom number generation. It also discusses the application of simulation in mathematical statistics and operational research, with particular reference to inventory and queuing systems. Experiments using statistical designs are analyzed through ANOVA, and information on the verification and validation of models is supplied.

This book is 280 pages in length and is published by John Wiley and Sons. It retails for $35.10. To order, contact:
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Baffins Lane, Chichester, West Sussex PO19 1UD, England, Fax: (0243) 775878 REGISTERED NO: 641132 ENGLAND

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10. Jim Wilson reported that the Simulation Department at Management Science is doing very well in terms of number and quality of papers processed. He announced that Halim Damerdji has been named an Associate Editor. Jim stated that he will step down as Department Editor at the end of 1992. Nominations for the new D.E. should be sent to Gabriel Bitran or Jim Wilson. Jim also stated that there were 25 papers currently in progress (five of which were late).

11. Jorge Haddock introduced a motion to provide scholarships to under-represented minorities and women to help with travel to the 1992 WSC. The intent was to encourage URM's and women to pursue a career in simulation. Jorge was unable to attend the meeting, so he submitted the following letter to Dave Kelton:

I propose that TIMS/CS provide a scholarship to an URM or W undergundate in the form of travel expenses to the WSC. The maximum to be given will be $1000. The selection will be based on the evaluation of an essay about the impact that attending WSC will have in the student's career. The selection committee will be appointed by the TIMS/CS President. The announcement will be included in the WSC Call for Papers. I propose that this program be implemented on an experimental basis for one year and be re-evaluated for future years.

There was quite a bit of discussion, the high points of which follow. Dave Withers made the friendly amendment that the announcement should appear in the appropriate places, e.g., the Newsletter or universities and colleges in the Washington area, but not necessarily the WSC Call for Papers (Jim Wilson offered to put it in the WSC's preliminary program if time permitted); also, he proposed that awards be given to up to 2 students; further, he proposed that the rewards have an upper bound of $250; further, he proposed that the committee consist of three people. Gary Kochman added the friendly amendment that we proceed with the gist of the proposal and Dave Withers' amendment this year on a one-time ad hoc basis; then come back at the 1992 WSC with recommendations for improving and formalizing things. Everybody seemed to be in agreement with the intent of the amendments. However, we felt that it was too early to formalize things completely. After a motion to table the proposal to ORSA/TIMS San Francisco was passed, Dave Withers reintroduced the "ad hoc" version of the proposal; the motion passed this time. The upshot: Dave Kelton will proceed with the gist of the proposal and amendments informally on an ad hoc basis.

12. Dave Kelton discussed simulation bulletin boards, noting that Paul Fishwick and Stanford provide two.
13. Dave Kelton urged the membership to vote.
14. Barry Nelson, the incoming President, led a round of applause for Dave Kelton, for an outstanding job as President. Thanks, Dave!
15. The meeting was adjourned at 6:55 p.m., and the attendees enjoyed refreshments and informal conversation.

Respectfully submitted,
David Goldsman, Secretary-Treasurer
July 23, 1992
Operating Research Editorial Policy

[Continued from page 4]

Incluuding gradient estimation. Papers using simulation to evaluate and compare non-simulation methodology will be processed by other areas or jointly with the Simulation Area.

Applications, survey, methodology, and basic theory papers are welcome. Application papers should illustrate quality simulation practice. How and why each aspect of the simulation study was performed is of primary interest. Survey papers should give structure to the topic discussed and include a complete bibliography. Papers presenting a new method should clearly state the method (usually in algorithmic form) and the context in which it is appropriate, including its limitations. Comparisons, either empirical or theoretical, should be presented to demonstrate the strengths and weaknesses of the new method with respect to existing methods. Papers presenting new theory should clearly state the relationship to simulation practice, methods, and existing theory.

When empirical evaluations are presented, enough information should be given so that the reader could replicate the experiment(s). This information includes the computer, language, compiler, and random-number generators used. The experimental design should be stated, including the number of replications and whether and how the replications are correlated. Some measure of sampling error should be given. The authors may be asked to provide computer code and output for the refereing process.

Authors should submit their papers to the Area Editor:

Bruce W. Schmeiser
School of Industrial Engineering
Purdue University
West Lafayette, Indiana 47907

Comments? Abstracts?

Please send editorial material to:
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