

## Candidate for Chair

Margaret Lucas Loper  
Georgia Tech Research Institute, Atlanta, GA, USA

### **BIOGRAPHY**

#### Academic Background:

Ph.D., Georgia Institute of Technology, 2002, Computer Science.

#### Professional Experience:

Lab Chief Scientist, Georgia Tech Research Institute, Atlanta, GA, 2006 – Present;  
Principal Research Scientist, Georgia Tech Research Institute, Atlanta, GA, 1995 – Present;  
Simulation Scientist, UCF Institute for Simulation & Training, Orlando, FL, 1990 – 1995.

#### Professional Interest:

Smart Cities; Megacities; Internet of Things; Trust; Live Virtual Constructive (LVC) Simulation.

#### ACM Activities:

Chair, SIGSIM, 2016 – 2018;  
Vice-Chair, SIGSIM, 2010 – 2016;  
General Chair, SIGSIM-PADS, SIGSIM, 2013;  
Secretary-Treasurer, SIGSIM, 2008 – 2010.

#### Membership and Offices in Related Organizations:

General Chair 2021, Winter Simulation Conference (WSC), 2017 – 2021;  
Board of Directors, Simulation Interoperability Standards Organization (SISO), 2012 – 2014;  
Track Chair, Ph.D. Colloquium, Winter Simulation Conference (WSC), 2009 – 2011.

#### Awards Received:

I/ITSEC Best Tutorial, 2012;  
WIT Woman of the Year in Technology, 2010;  
NASA GSRP Fellow, Office of Space Science, 2000;  
High Level Architecture (HLA) Planck holder, 1996.

### **STATEMENT**

I'm honored to run for the Chair of SIGSIM. I've been a member of ACM for 15 years and involved in M&S for more than 30 years. Over that time, I've held leadership positions in SIGSIM and SISO, and supported many conferences including SIGSIM-PADS, WSC, SIMULTECH, SIMUTools, and I/ITSEC. My experience in these positions has prepared me to serve you, and SIGSIM, as Chair. Over the last 5 years, SIGSIM has improved communications by reaching out on social media, updating content on the MSKR and creating blogs on novel M&S applications. We even created a flagship conference, SIGSIM-PADS! Moving forward we need a strategy to

attract new members (practitioners, industry researchers, academics), especially in new areas where M&S is on the rise (e.g., Internet of Things). As chair, I've also realized the need for SIGSIM to better engage all the conferences we support (WSC, SIGSIM-PADS, DS-RT, MWSIM), helping to build those communities and grow our early career researchers through initiatives like Ph.D. colloquiums. Lastly, I want to continue our initiative to recognize SIGSIM researchers for their hard work at conferences, as well as in their professional pursuits.

## Candidate for Chair

Kalyan Perumalla  
Oak Ridge National Laboratory, Oak Ridge, TN, USA

### **BIOGRAPHY**

#### Academic Background:

Ph.D., Georgia Institute of Technology, 1999, Computer Science.

#### Professional Experience:

Distinguished R&D Staff Member, Oak Ridge National Laboratory, Oak Ridge, TN, 2015 – Present;  
Group Leader, Oak Ridge National Laboratory, Oak Ridge, TN, 2014 – Present;  
Adjunct Professor, Georgia Institute of Technology, Atlanta, GA, 2006 – Present.

#### Professional Interest:

Parallel Discrete Event Simulation; Agent-based Simulation; High Performance Computing;  
Discrete Optimization; Reversible Computing.

#### ACM Activities:

Associate Editor, ACM Transactions on Modeling and Computer Simulation, 2008 – Present;  
Program Committee Member, Principles of Advanced Discrete Simulation, 2003 – Present;  
Program Co-Chair, SimuTools 2017;  
Program Co-Chair, Principles of Advanced Discrete Simulation, 2007.

#### Membership and Offices in Related Organizations:

Associate Editor, TSMSI SIMULATION Journal, 2008 – Present;  
Track Co-Chair, Scientific Computing, WSC, 2014;  
Program Co-Chair, IEEE MASCOTS, 2012;

#### Awards Received:

ORNL Division Award CSM Most significant technical contribution, 2017;  
Best Paper, SPECTS/SummerSim "Simulating billion-task programs", 2014;  
DOE Career Award - Advanced Scientific Computing Research, 2010;  
Best Paper, SpringSim "Data parallel execution challenges and runtime performance of agent simulations on GPUs", 2008.

### **STATEMENT**

Building on my 20+ years of contributions as a proud member of the simulation research community, I am extremely excited at the opportunity to serve the SIGSIM community with vision and new leadership. I have been active as a researcher and organizer in multiple venues relevant to SIGSIM, including MSI/SCS, TOMACS, WSC, PADS, SpringSim, DS-RT, MASCOTS, and SimuTools. From

strong interactions and collaborations over many years, I believe I enjoy collegial and warm relationships with leaders in the world-wide simulation community, and expect to build on them in leading SIGSIM. I am eager to tap into my relationships with government agencies, expertise in cutting-edge high-end computing, and important intersections with scientific computing applications of national and global interest. In terms of management skills, I hold a managerial role at the Oak Ridge National Laboratory, have experience managing sizable budgets, and have led simulation conferences. I have also supervised many students, postdocs, and research staff members. Cognizant of the latest promise of artificial intelligence (AI), I wish to seek complementary and supplementary initiatives to bridge traditional simulation with exciting technical developments in AI that are bound to intersect many methods and applications of simulation.

## Candidate for Vice-Chair

Navonil Mustafee  
University of Exeter, United Kingdom

### **BIOGRAPHY**

#### Academic Background:

Ph.D., Brunel University, 2007, Information Systems and Computing.

#### Professional Experience:

Senior Lecturer, University of Exeter, UK, 2014 – Present;

Lecturer, University of Exeter, UK, 2013 – 2014;

Lecturer, Swansea University, UK, 2010 – 2013.

#### Professional Interest:

Hybrid Systems Modelling; Hybrid Simulation; Healthcare Simulation;  
Distributed Simulation; Bibliometric Analysis.

#### ACM Activities:

Associate Editor, SIGSIM M&S Knowledge Repository, 2013 – Present;

Nominating Committee Chair, 2016 SIGSIM elections, 2016;

Program & Proceedings Co-Chair, 2015 SIGSIM-PADS Conference, 2015;

Publicity Chair, 2014 SIGSIM-PADS Conference, 2014.

#### Membership and Offices in Related Organizations:

Chair, ORSOC Simulation Special Interest Group, UK OR Society, 2017 – Present;

Member, UK OR Society, 2010 – Present;

Member, SCS, 2014 – Present.

#### Awards Received:

SpringSim Smackdown - Lunar exploration scenario (with Brunel), 2013;

2006 EURO SIW (SISO) - Outstanding paper, 2006.

### **STATEMENT**

I have held various leadership positions in conferences organised by SCS, ACM SIGSIM and UK OR Society. Since 2013, I have served as Associate Editor for two simulation journals published in the UK and US respectively. I have initiated and received funding for reciprocal visits to the UK by non-UK academics (including a Leverhulme Trust visiting professorship), to forge strong research links with non-UK researchers. I will bring to ACM SIGSIM this experience of engaging in international collaborations. My vision for ACM SIGSIM is that it serves as a platform for inter-disciplinary researchers using simulation approaches with paradigms, methods and techniques from other disciplines (including qualitative work).

I will contribute to this vision by promoting "Hybrid Systems Modelling" which embraces approaches used in other fields. In realisation of this, I will draw on my existing experience in building-up the "Hybrid Simulation" track at the Winter Simulation Conference (2014-current), as also, my contribution to the scholarly development of our field by serving as the lead guest editor for five special issues (including ACM TOMACS, Simulation Transactions and JOS). I would like to thank you for reading my statement and look forward to working with you.

## Candidate for Vice-Chair

Andreas Tolk  
MITRE, Hampton, VA, USA

### **BIOGRAPHY**

#### Academic Background:

Ph.D., University of the Federal Armed Forces, 1995, Computer Science.

#### Professional Experience:

Division Staff, MITRE, Hampton, VA, 2015 – Present;  
Chief Scientist, SimIS Inc., Portsmouth, VA, 2013 – 2015;  
Professor, Old Dominion University, Norfolk, VA, 2006 – 2015.

#### Professional Interest:

Modeling and Simulation; Artificial Intelligence; Complex Systems; Epistemology of Simulation;  
Combat Modeling and Distributed Simulation.

#### ACM Activities:

Vice Chair, SIGSIM, 2016 – Present;  
ACM WSC Advisory Board, SIGSIM, 2013 – Present;  
Secretary-Treasurer, SIGSIM, 2010 – 2016.

#### Membership and Offices in Related Organizations:

VP Membership, Society for Modeling and Simulation (SCS), 2012 – 2016;  
Secretary, Society for Modeling and Simulation (SCS), 2011 – 2012.

#### Awards Received:

Fellow of the Society for Modeling and Simulation (SCS), 2016;  
Distinguished Professional Achievement Award of SCS, 2014;  
Outstanding Professional Contribution Award of SCS, 2012;  
Inaugural Technical Merit Award of SISO, 2010.

### **STATEMENT**

I would like to continue to serve on the board of the ACM SIGSIM as the vice chair. I collected knowledge over the past years that I would like to continue to provide. Over the last years, the board initiated many changes. We increased the diversity in our leadership and our groups. We started to put our money to good use for SIGSIM by providing more support for our students: bringing students to our workshops and conferences, and ultimately into our society. We need the new ideas of the students and young scholars and professionals to stay relevant. We must strengthen our base to ensure firm foundations, so I want to continue to support

students and young professionals. Of utmost importance for me is the diversity of ideas, domains, and viewpoints. Simulation is on the brink to become the most significant method for computational science, and we must push our relevance into this new domain, in university, but also in the workforce. We have to become more active to increase the diversity of simulation in SIGSIM as well. I would like to continue to be a force for the continuation of these developments and ask for your support!



## Candidate for Secretary-Treasurer

David Bell  
Brunel University London, United Kingdom  
HecoAnalytics Limited, United Kingdom

### **BIOGRAPHY**

#### Academic Background:

Ph.D., Brunel University London, 2006, Computer Science.

#### Professional Experience:

CTO, HecoAnalytics Limited, (Brunel Spinout), UK, 2017 – 2018;  
Faculty, Brunel University London, UK, 2007 – 2018;  
Developer-Director, Deutsche Bank, UK, 1992 – 2003.

#### Professional Interest:

Computer Simulation; Health, Hybrid & Cybersecurity Modeling and Simulation;  
Digital Service Design;

#### ACM Activities:

Education Chair, SIGSIM, 2015 – Present;  
Member, SIGSIM, 2014 – Present.

### **STATEMENT**

I look forward to actively promoting the use of computer simulation across education and industry, supporting membership growth and development of SIGSIM. I have previous experience in financial management (including as chairing governor of a school finance committee) and will use this experience to manage SIGSIM finances in a transparent manner. Lastly, I will actively promote new initiatives that develop a greater awareness of simulation and modeling across university and pre-university education.

## Candidate for Secretary-Treasurer

Kara A. Olson  
Woodruff Scientific, Inc., Seattle, WA, USA

### **BIOGRAPHY**

#### Academic Background:

Ph.D., Old Dominion University, 2014, Computer Science.

#### Professional Experience:

Computational Scientist, Woodruff Scientific, Inc., Seattle, WA, 2014 – Present;  
Research Assistant, NASA Langley Research Center, Hampton, VA, 2010 – 2012;  
Instructor, Old Dominion University, Norfolk, VA, 2010 – 2011.

#### Professional Interest:

Modeling & Simulation; Discrete Event Simulation; Code Analysis; Model Understanding;  
High Performance Computing.

#### ACM Activities:

Secretary-Treasurer, ACM SIGSIM, 2016 – Present;  
Chair, Old Dominion University ACM Student Chapter, 1995 – 2003;  
Vice Chair, Old Dominion University ACM Student Chapter, 1994 – 1995.

#### Awards Received:

SIGSIM Winter Simulation Conference Student Travel Award, 2014;  
SIGSIM PADS Student Travel Award, 2013;  
I/ITSEC Doctoral Student Award, 2008;  
VMASC (Virginia Modeling, Analysis and Simulation Center) Fellowship, 2008.

### **STATEMENT**

Being an annual Business Meeting attendee for 13 years, it's been fun to learn more about the inner details of SIGSIM. I'm hopeful to put this knowledge to continued use.

As Treasurer, each financial presentation has been an additional chance to learn more about and delve deeper in to the details of our finances and our relationship with ACM headquarters, and each has brought about cleaner, clearer slides and understanding. It is important that members be able to clearly understand how their organization operates. The presentation is also now self-contained and easily updateable so we will be able to continue this.

As Secretary, attending WSC and especially SIGSIM PADS this year, I had stimulating chats with attendees who offered suggestions and ideas for SIGSIM – I'm always interested in

listening! Interacting positively with the attendees was reminiscent of the wonderful experiences SIGSIM afforded me with conference support as a doctoral student, for which I'm still greatly appreciative.

Thank you for the opportunity to serve this past term. I would be both delighted and honored to continue as your Secretary-Treasurer.