

INFORMS HIGH SCHOOL TEACHERS WORKSHOP, Washington, DC

Marriott Wardman Park Hotel (Thurgood Marshall Ballroom East)

Monday, October 13, 2008

Sponsored by the INFORMS Public Awareness Committee, along with...



8:30 – 8:40am	Prof. Dave Goldsman (Georgia Tech)	Welcome and Overview
8:40 – 9:30am	Prof. Tom Edwards (Wayne State)	Optimization
9:30 – 9:50am	Tom Edwards	MINDSET Project
9:50 – 10:00am	Prof. Rob Shumsky (Dartmouth)	Hand out Statistics Survey
10:00 – 10:10am	Break	
10:10 – 10:50am	Prof. Barry Nelson (Northwestern)	Queueing Theory
10:50 – 11:30am	Prof. Rajesh Ganesan (George Mason)	Deterministic Dynamic Programming
11:30 - 12:15pm	Dr. Evan Glazer (Thomas Jefferson H.S. for Science and Technology)	Luncheon Keynote Address
12:15 – 12:45pm	LUNCH Helen Snyder (Robinson H.S.)	Graph Theory
12:45 – 1:15pm	Col. Frank Trippi (INFORMS Teachers Workshop Coordinator)	Opportunities in Operations Research
1:15 – 2:00pm	Rob Shumsky	Statistics
2:00 – 2:10pm	Break	
2:10 – 2:40pm	Dave Goldsman	Probability and Computer Simulation
2:40 – 3:10pm	Craig Holcomb (National Security Agency)	Winning Games: Luck or Logic?
3:10 – 3:50pm	Erika Ebbel (WhizKids Inc.)	WhizKids: A Math and Science Enrichment Program
3:50 - 4:00pm	Dave Goldsman and Frank Trippi	Wrap-up

Evening Event: All attendees of the Teachers Workshop are cordially invited to attend the INFORMS Computing Society's (ICS) social hour on Monday evening (precise room and time TBA). This is an absolutely super opportunity to meet and interact with academics and professionals at the intersection of Operations Research and Computer Science — all while enjoying the finest wine and cheese.

Related Links:


www.isye.gatech.edu/~sman/RelatedLinks/PAC/ (our main web site)

www.hsor.org (this site has many of the Teachers Instructional Modules + a nice overview of OR)

http://mba.tuck.dartmouth.edu/pages/faculty/robert.shumsky/simulation/security_simulation.htm (Rob Shumsky's site)

www.whizkidsfoundation.org (WhizKids' site) Speaker Biographies

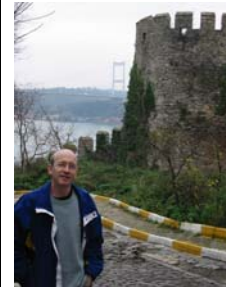
WORKSHOP SPEAKERS:

<p>Erika Ebbel is a 2004 graduate of the Massachusetts Institute of Technology majoring in Chemistry and minoring in music. A three time winner of the California State Science Fair, she was also the recipient of the U.S. Navy Award. In 1998 she was the 1st place national winner of the Junior Science and Humanities Symposium and in 1999 she became an Intel Science Talent Search Finalist and winner of the 1999 California State Student and Project of the Year awards at the California State Science Fair. At MIT she was involved in virology, analytical chemistry, and molecular biology research. She has also worked for MIT's Lincoln Laboratory and presented research on novel anti-viral therapies. In 2003 she was nominated as a recipient of the U.S. Achievement Academy National Sciences Award, and has been inducted into two honor societies at MIT, which include the National Society of Collegiate Scholars, and the National Scholars Honor Society. In 2002 Erika founded the WhizKids Foundation, Incorporated. Since its inception, WhizKids has been working towards setting up science-oriented programs across the country. Erika was Miss Massachusetts 2004 in the Miss America program and worked at the Bedford Veterans Affairs Hospital from 2004–2005 doing research on neurodegenerative diseases. She is currently a doctoral candidate in Analytical Biochemistry in the Division of Graduate Medical Sciences at Boston University School of Medicine and also intends to obtain an MD. Erica can be reached at info@whizkidsfoundation.org.</p>	
<p>Thomas Edwards is an Associate Professor of Mathematics Education in the College of Education at Wayne State University in Detroit. Following a 24-year career as a high school mathematics teacher in the Buffalo, NY Public Schools, he completed a Ph.D. in Mathematics Education at the Ohio State University in 1994. In 1994, he was appointed to the faculty at Wayne State, earning tenure in 2000. In 2003, he was awarded a prestigious Career Development Chair Award by the University. He has directed 94 Masters Projects and 12 Doctoral Dissertations and has a total of 65 publications, 35 of which are in peer-reviewed journals or conference proceedings. Dr. Edwards is currently one of the five co-PIs on the MINDSET Project. He is co-author (with Ken Chelst) of the text <i>Does This Line Ever Move? Everyday Applications of Operations Research</i>. His email address is aa1368@wayne.edu.</p>	
<p>Rajesh Ganesan is an assistant professor of Systems Engineering and Operations Research at George Mason University, Fairfax, VA. He received his Ph.D. in 2005 and M.S. in 2002 both in Industrial Engineering, and M.A in Mathematics in 2005, all from the University of South Florida, Tampa, FL. His areas of research include stochastic optimization, and wavelet analysis in air transportation and statistical applications. He is a faculty member at the Center for Air Transportation Systems Research at George Mason University. He is also the Principal Investigator of the NSF funded SUNRISE GK-12 project at George Mason University. His email is rganesan@gmu.edu.</p>	

Evan Glazer is the Principal of Thomas Jefferson High School for Science and Technology. Dr. Glazer was born and raised in the Chicago suburbs. He earned a B.S. in Mathematics and an M.S. in Mathematics Education at the University of Illinois, and a Ph. D. in Instructional Technology at the University of Georgia. As a mathematics teacher in Glenview, Illinois, he emphasized inquiry-based learning, technology-enhanced explorations, and real world applications. Some of his work can be seen in his books *Using Internet Primary Sources to Teach Critical Thinking* and *Everyday Use of Mathematical Concepts: A Reference Guide*. In addition to his interest in mathematics, Dr. Glazer has studied and explored various facets of physics and paleontology. At the university level, Dr. Glazer taught courses on instructional design, research methods, and using computers in the classroom. His research examined social and environmental factors that influence professional learning as teachers integrate technology into their classrooms. As director of the Roanoke Valley Governor’s School for Science and Technology in Virginia, Dr. Glazer instituted new research programs in science and technology, and taught a variety of courses to students and professional development seminars to teachers. In addition to attending and participating in TJ activities and events, Dr. Glazer enjoys running, hiking, football, trivia, logic puzzles, cooking, museums, and traveling. Dr. Glazer can be reached by email at Evan.Glazer@fcps.edu.



Dave Goldsman is a Professor in the School of Industrial and Systems Engineering at the Georgia Institute of Technology. He is a co-organizer (with Col. Frank Trippi) of the Teachers Workshop and was the Chair of the INFORMS PAC from 2002–2007. Dave’s research interests include simulation output analysis and statistical ranking and selection methods. He has co-authored the texts *Design and Analysis of Experiments for Statistical Selection, Screening and Multiple Comparisons*, with Bob Bechhofer and Tom Santner, and *Probability and Statistics in Engineering* (4th edition), with Bill Hines, Doug Montgomery, and Connie Borrer. Dave recently completed a Fulbright fellowship to lecture at Boğazici and Sabancı Universities in Istanbul, Turkey. His email address is sman@gatech.edu.



Craig Holcomb is Technical Director for the Modeling and Simulation Oversight Division, in the National Security Agency’s (NSA) Enterprise Operations Research (OR), Modeling and Simulation Office. He has been a member of NSA’s Math Speakers Bureau for over 10 years, and he is the Master Instructor for the “Operations Research in Real Life” at NSA’s annual Math and Related Sciences Camp. Craig has a B.A. with a double major in Mathematics and Computer Science from the University of Tennessee, an M.S. from George Washington University in Computer Science, and an Applied Scientist degree from George Washington. His email address is lcholco@nsa.gov.



Barry Nelson is the Charles Deering McCormick Professor and Chair of Industrial Engineering & Management Sciences at Northwestern University. He is interested in the design and analysis of computer simulation experiments, particularly issues of statistical efficiency (such as variance-reduction techniques), multivariate output analysis (such as multiple-comparison procedures and optimization via simulation), multivariate input modeling (such as modeling and generation of time-series input processes) and metamodeling. He also works on approximation techniques for networks of nonstationary queues. His application areas include financial engineering, computer performance modeling, quality control, manufacturing and transportation systems. He is a Fellow of INFORMS. Professor Nelson teaches courses on stochastic modeling and computer simulation. He was named McCormick teacher of the year in 1998 and 2007, was elected to the 2002, 2003 and 2007 ASG Faculty Honor Rolls, received the 2003 Northwestern Alumni Association Excellence in Teaching Award, and was given the 2004 IIE Operations Research Division Award for Excellence in the Teaching of Operations Research. His email address is nelsonb@northwestern.edu.



Robert Shumsky is an Associate Professor of Business Administration at the Tuck School of Business at Dartmouth. His research focuses on the improvement of service operations, with particular emphasis on the coordination of service supply chains in which service provision is split among multiple firms. He has conducted research on the U.S. air traffic management system and studied transportation operations for state agencies and the Federal Aviation Administration. Before joining the Tuck School, Professor Shumsky was on the faculty of the Simon School of Business at the University of Rochester. He has published articles in *Manufacturing and Service Operations Management, Operations Research, and Management Science*. He currently serves in various editorial positions for academic journals and is the chair of the INFORMS Revenue Management and Pricing Section. His email address is Robert.Shumsky@dartmouth.edu.



Frank Trippi is the Founder of the INFORMS Public Awareness Committee (PAC). Since Frank retired in 1983 from the Naval Facilities Engineering Command and as colonel in the U.S. Air Force Reserve, he has devoted nearly full time service as the driving force and “Leader of the PAC”. His goal has been to share the promise of operations research with junior college, high school and junior high school students by educating teachers in the use of and the methods for teaching OR. To get high school students to continue their mathematical education, and to provide them with challenges that are relevant to their day-to-day lives and interesting enough to keep them involved, Frank created a series of videos designed for middle-schoolers, high-school students, and the general adult public. He then worked to ensure that each would be shown on Public Broadcasting Channels throughout the country. Frank also led the INFORMS PAC effort, to develop teaching materials and hands-on work that brings OR directly into the high school classroom. He invited teachers to INFORMS meetings to attend workshops on how to apply the materials in class. He coordinated special math seminars and conferences for the National Council of Teachers of Mathematics (NCTM), middle and high schools and community colleges. Frank worked with Teaching Associations and the local school systems to have the OR workshops count toward teacher in-school instruction time. Many in the audiences (some with over 100 attendees) immediately worked to incorporate OR subject matter into their curricula. For these and other contributions, Frank was awarded the prestigious George E. Kimball Medal in 2004 for Service to INFORMS and the Profession. Frank can be reached at ftrippi@verizon.net.

