



MODSIM WORLD²⁰¹⁸

ENGINEERING THE FUTURE AND ENABLING READINESS:
VIRTUALLY READY FOR ANY REALITY



About MODSIM World

MODSIM WORLD is a multi-disciplinary international Modeling and Simulation (M&S) conference that provides a unique opportunity to learn about new M&S applications and practices across diverse domains.

MODSIM WORLD began in 2007 with the creation of the Center for Public and Private Partnership (CP3), a non-profit corporation that drew membership from the M&S industry and community leaders in Hampton Roads, Virginia. In November 2014 the CP3 changed its name to Virginia Modeling and Simulation Partnership (VMSP), by vote of the Board of Directors. VMSP saw the interest and need to share information about the vast amount of M&S based development occurring in the Hampton Roads area, including work based at Joint Forces Hampton Roads, Virginia Modeling, Analysis and Simulation Center (VMASC), Eastern Virginia Medical School (EVMS), NASA Langley Research Center, and many other regional government, academic, and industry organizations. Now sponsored and managed by the National Training and Simulation Association (NTSA), MODSIM has been held annually since.

Specific focus areas of the conference vary from year to year, based upon current events and interest level. The 2018 conference tracks are Analytics and Decision Making, Science and Engineering, Training and Education, and Visualization and Gamification.

MODSIM VISION

MODSIM World will become the premier international conference and exposition for collaboration and transfer of M&S knowledge, new research, development and applied technology across all public and private sectors.

MODSIM MISSION

- To promote the initiation, development and research of M&S among all organizations internationally.
- To share the latest technical expertise, knowledge, applications and capabilities of simulation technology by academia, industry and government.
- To promote cooperation among academia, industry and government, applying M&S technologies to help organizations anticipate and prepare for the future.
- To improve M&S technology to reduce its implementation cost by academia, industry and government.
- To support planning, decision-making and real time operations management with state-of-the-art computer software and development expertise utilizing modeling and simulation.
- To foster the transfer of leading edge simulation technology and knowledge from the military community to the medical, transportation, homeland security and other applicable communities.

Welcome and Introductions

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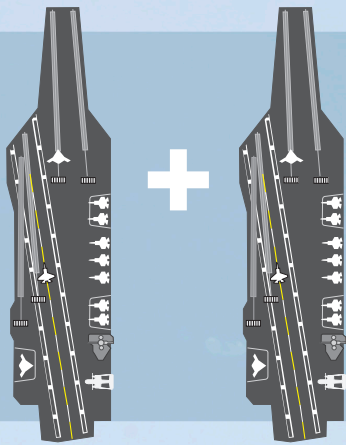
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When two aircraft carriers are purchased at one time, it not only saves American taxpayers over two billion dollars – it supports more than 2,000 suppliers across 46 states with contracts worth more than \$8 billion, and helps restore our 12-carrier fleet.

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Dear MODSIM World 2018 Guests,

On behalf of the MODSIM World 2018 conference committee, welcome! It is a privilege to be serving as this year's conference chair. MODSIM World brings together government, industry, and academia from multiple domains across national and international communities. Over the last several years, the conference has grown and attracted a more diverse audience, both geographically and professionally, and this year we continue that trend. The committee has worked very hard to make this year's event a relevant and vibrant experience for all participants and we are delighted you are joining us for MODSIM World 2018.

Our theme, "Engineering The Future and Enabling Readiness: Virtually Ready for Any Reality" highlights that modeling and simulation is how we leverage the virtual world to more successfully operate in the real one – not just today's world, but future realities as well.

We are honored to have numerous outstanding keynote speakers who can address this very point from a diversity of perspectives. I am grateful to each speaker and to their staffs for juggling very busy schedules and working diligently to bring their perspectives to the conference. I trust you will find each address a fulfilling event. We are also privileged to have several exciting panel events bringing the best and brightest together to trade thoughts about modeling, simulation, and some related and very timely and topics that you will find compelling I am sure. I truly appreciate the time these panelists have set aside to join us at MODSIM World 2018 and to share their visions with us. Finally, we are fortunate to have so many dedicated presenters comprising the technical program. In these sessions you will see traditional presentations, innovative panel events, and outstanding track keynote speakers.

We strive to make MODSIM World a friendly and interactive conference. Our goal is for guests to interact both during conference sessions and during our multiple networking activities -- our location in the newly revitalized Waterside in downtown Norfolk is a great setting for this purpose. I hope you use the coming three days to take full advantage of our rich and diverse technical program, meet new people and exchange ideas.

I would like to thank the sponsors and exhibitors, our presenters, and speakers for being part of such an exceptional program. And I am truly grateful to NTSA and to the incredibly dedicated members of MODSIM World committee for their tireless effort throughout the year to bring this event to you. We hope that you enjoy the program and look forward to seeing you again in 2019. Thank you for attending, and welcome to MODSIM World!

Sincerely,

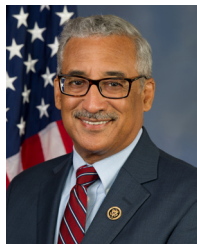
Dr. Benjamin Bell
Conference Chair, MODSIM World 2018



Keynote Speakers

Congressional

Tuesday, April 24 | 0845 – 0900 | Norfolk Ballroom I-III



REP BOBBY SCOTT

Congressman
VA-03

Congressman Robert C. “Bobby” Scott is currently serving his thirteenth term

in Congress representing Virginia’s Third Congressional District. Prior to serving in the House of Representatives, he served in the Virginia House of Delegates from 1978 to 1983 and in the Senate of Virginia from 1983 to 1993. Congressman Scott currently Co-Chairs the Congressional Modeling and Simulation Caucus. He is a strong supporter of our nation’s military readiness as well as our troops and their safety. He is a leading advocate for improving and increasing funding for veterans’ benefits and health care, especially mental health care, and was the lead sponsor in the House of Senator Jim Webb’s Post-9/11 G.I. Bill that was signed into law by President George W. Bush in 2008. Congressman Scott has routinely

received an “A” from the Iraq and Afghanistan Veterans of America for his service and commitment to our veterans.

He currently serves as the Ranking Member on the Committee on Education and the Workforce, a committee he has served on since his arrival to Congress in 1993. In his capacity as the most senior Democrat on the Committee, he is leading the fight for access to quality early, secondary and higher education for all of America’s children with an emphasis on solving the growing problem of student debt, closing the achievement gap and dismantling the School-to-Prison Pipeline. In 2015, he was one of the four primary negotiators of the Every Student Succeeds Act, which reauthorized the Elementary and Secondary Education Act for the first time in 13 years replacing the No Child Left Behind Act. Additionally, he is focused on ensuring that millions of Americans have the opportunity to go to work every day and know that they will be treated

fairly, paid a decent and living wage, given a safe environment in which do their jobs and provided access to affordable health care.

He has the distinction of being the first African-American elected to Congress from the Commonwealth of Virginia since Reconstruction and only the second African-American elected to Congress in Virginia’s history. Having a maternal grandfather of Filipino ancestry also gives him the distinction of being the first American with Filipino ancestry to serve as a voting member of Congress. Congressman Scott was born on April 30, 1947 in Washington, D.C. and grew up in Newport News, Virginia. He is a graduate of Harvard College and Boston College Law School. After graduating law school, he returned home to Newport News and practiced law from 1973 to 1991. He received an honorable discharge for his service in the Massachusetts National Guard and the United States Army Reserve.

Industry

Tuesday, April 24 | 0900 – 0930 | Norfolk Ballroom I-III



DR. ROBBY ROBSON

CEO
Eduworks Corporation

Dr. Robby Robson is a researcher and innovator in the broad field of

learning technology who has contributed to numerous standards and technologies that are widely used today. He is currently leading an open source effort that is defining infrastructure and contributing to standards for managing and sharing competencies and learner records and is involved in several

projects that apply recent technological advances in natural language processing and machine learning to improve the efficiency and effectiveness of training systems. Within the IEEE, Dr. Robson serves on multiple boards and committees, including the IEEE Standards Association Standards Board and the IEEE Future Directions Committee, and chairs the subcommittee of the Industry Connections Industry Consortium for Learning Engineering (ICICLE) that is

organizing the first international conference on learning engineering. Dr. Robson holds a doctorate in mathematics from Stanford University and is CEO and co-founder of Eduworks Corporation.

Defense

Tuesday, April 24 | 0930 – 1000 | Norfolk Ballroom I-III



BG STEPHEN M. NEARY

Deputy Director
Joint Training, Joint Staff J7

Brigadier General Neary was born in Boston, Massachusetts. He graduated from the Virginia Military Institute and was commissioned a Second Lieutenant in May 1988.

A Career Infantry Officer, Neary served with First Battalion, First Marines as a rifle platoon commander and 81mm mortar platoon commander where he deployed on two WestPac deployments and participated in Operation DESERT SHIELD/DESERT STORM. He served as a Company Commander and Operations Officer in Third Battalion, Third Marines in Kaneohe Bay, Hawaii and supported two deployments on the Unit Deployment Program to Okinawa.

From 2000 to 2003, Neary commanded Recruiting Station New Jersey, and in July 2004 he assumed command of Third

Battalion, Eighth Marines. He led the battalion in combat during Operation IRAQI FREEDOM III (Fallujah) and Operation IRAQI FREEDOM V (Ramadi). From June 2010 to July 2012, Neary commanded the Fourth Marine Regiment.

Neary's instructor and staff assignments include The Basic School as a tactics instructor and student platoon commander. He served as the Future Operations Officer of the 4th Marine Expeditionary Brigade (AT) and as the Plans and Executive Officer for 8th Marines in support of Operation SECURE TOMORROW in Haiti. He also served as a Plans Observer Trainer with the Joint Warfighting Center J7 in Suffolk, Virginia and as the Branch Chief of the Programs Assessment Branch, Programs and Resources, HQMC. Neary served as the Deputy Commanding General, Marine Corps Combat Development Command &

Assistant Deputy Commandant for Combat Development & Integration from October 2015 to June 2016. He assumed his current duties with the Joint Staff as the Deputy Director for Joint Training in June 2016.

Neary has attended the Amphibious Warfare School and the Marine Corps Command and Staff College in Quantico, Virginia and the Naval War College in Newport, Rhode Island.

His personal decorations include the Legion of Merit with one star, two Bronze Stars with "V," Joint Meritorious Service Medal, Meritorious Service Medal, Navy and Marine Corps Commendation Medal with two stars and a third with Combat "V," and the Combat Action Ribbon with one star.

Neary is married to the former Tracy Joy Gregory of Virginia Beach, VA. They have a daughter, Riley 19, and a son, Christian 16.

Government

Wednesday, April 25 | 1030 – 1115 | Norfolk Ballroom I-III



MR. ROBERT BURNS

Deputy Director
Homeland Security Advanced Research Projects Agency (HSARPA)

Mr. Robert (Bob) P. Burns is currently the Deputy Director of the Homeland Security Advanced Research Projects Agency (HSARPA) within the Department of Homeland Security (DHS), Science and Technology Directorate (S&T). He joined HSARPA in December 2007. Prior to this role, he served as the Director of the Apex Technology Engines, managing resources technical direction of the program as well as HSARPA's Business Community Outreach initiatives.

Mr. Burns was previously the Director for the Apex AEER (Air Entry/Exit Re-Engineering) Project from February 2013 until December

2014. He led S&T in a partnership with U.S. Customs and Border Protection (CBP) to enhance both air entry and exit processes by developing recommended approaches and implementing technologies for use in existing airport inspecting and examination operations for travelers entering the U.S. Additionally, he was the program management for the Future Attributes Screening Technology Mobile Module program designed to develop innovative, non-invasive technologies to screen people at special events, transportation checkpoints, and other secure areas.

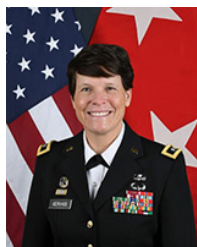
Prior to his position at S&T, Mr. Burns spent over 18 years with American Systems Corporation, ending his tenure as the

Director of the Weapons and Combat Systems Directorate. In this role, he managed a portfolio of multi-million dollar programs focused on weapons research and development for several government organizations including the Department of Defense. He received a B.S in General Engineering from the U.S Naval Academy and served in the U.S. Navy for 5 years.

Keynote Speakers

Defense

Wednesday, April 25 | 1115 – 1200 | Norfolk Ballroom I-III



MG MARIA R. GERVAIS

Deputy Commanding General
Combined Arms Center - Training

Major General Maria R. Gervais received her Regular Army commission in 1987

as a Distinguished Military Graduate of the Lander College Reserve Officer Training Corps program in Greenwood, South Carolina, and was assigned to the Chemical Branch. Her professional military education includes: Chemical Officer Basic and Advanced Courses, Command and General Staff College, and U.S. Army War College where she received a Master of Military Strategic Studies. She earned a Master of Arts in Human Resources from Webster University and a Bachelor of Science degree in Biology from Lander College.

MG Gervais has served in a variety of command and staff assignments at every level including: Brigade Chemical Officer and Headquarters Executive Officer, 17th Field Artillery Brigade, Augsburg, Germany; Platoon Leader and Executive Officer, 11th Chemical Company, Nelligen, Germany; Battalion Chemical Officer, 1st Battalion, 227

Aviation Regiment (ATTACK), 1st Cavalry Division, Fort Hood, Texas; Division NBC Element Director, Division Headquarters and Headquarters' Company Commander, and Brigade Chemical Officer, 101st Aviation Brigade, 101st Airborne Division (Air Assault), Fort Campbell, Kentucky; Joint Chiefs of Staff J5 intern, Pentagon, Policy and Strategy Directorate, Weapons Technology Control Division and Systems Integrator for Smoke and Decon Systems, Headquarters Department of the Army, G3, DAMO-FDB; Executive Officer to the III Corps G3, Fort Hood, Texas; Operations Officer, 2nd Chemical Battalion, 13th Corps Support Command; Logistical Planner and Chief of Operations, 21st Theater Support Command (TSC), Kaiserslautern, Germany; Battalion Commander, 82nd Chemical Battalion and Chief of Staff, United States Army Chemical School and Maneuver Support Center, Fort Leonard Wood, Missouri; Commander, United States Army Environmental Command, Edgewood Arsenal, Maryland; Chief of Staff, Iraq Train and Advise Mission

(ITAM) Director, Baghdad, Iraq; Division Chief for Full Dimension Protection, HQDA G-8, Pentagon; Deputy Commanding General, U.S. Army Cadet Command and Fort Knox, Fort Knox, Kentucky, and the 28th Chief of Chemical and the Commandant of the U.S. Army Chemical, Biological, Radiological, and Nuclear School.

Her awards and decorations include: four Legions of Merit, Bronze Star Medal, seven Meritorious Service Medals, two Joint Service Commendation medals, six Army Commendation Medals, two Army Achievement Medals, Iraqi Campaign Medal, Global War on Terrorism Expeditionary Medal, Global War on Terrorism Service Medal, two National Defense Service Medals, Southwest Asia Medal, Armed Forces Reserve Medal, Army Service Ribbon, two Overseas Service Ribbons, Kuwait Liberation Medal, Saudi Arabia Kuwait Liberation Medal, Parachutist Badge, Air Assault Badge, Joint Staff Identification Badge, Army Staff Identification Badge, and the Joint Meritorious Unit Award.

MONDAY, APRIL 23

- 1300 – 1700 **EXHIBITOR MOVE-IN**
NORFOLK BALLROOM IV-VI
- 1500 – 1700 **REGISTRATION**
MAIN LOBBY – NORFOLK BALLROOM FOYER

TUESDAY, APRIL 24

- 0700 – 1730 **REGISTRATION**
MAIN LOBBY – NORFOLK BALLROOM FOYER
- 0730 – 0830 **CONTINENTAL BREAKFAST**
NORFOLK BALLROOM IV-VI
- 0830 – 0845 **MODSIM WORLD 2018 WELCOME AND OPENING REMARKS**
NORFOLK BALLROOM I-III
Dr. Benjamin Bell
President, Eduworks Corporation, MODSIM World 2018 Conference Chair
RADM James Robb, USN (Ret)
President, National Training and Simulation Association (NTSA)
Introduction of Congressional Keynote Speaker
RADM James Robb, USN (Ret)
President, National Training and Simulation Association (NTSA)
- 0845 – 0900 **CONGRESSIONAL KEYNOTE ADDRESS**
NORFOLK BALLROOM I-III
Rep Bobby Scott
VA-03
- 0900 – 1000 **INDUSTRY AND DEFENSE KEYNOTE ADDRESS**
NORFOLK BALLROOM I-III
Introduction of Industry and Defense Keynote Speakers
Dr. Benjamin Bell
President, Eduworks Corporation, MODSIM World 2018 Conference Chair
Industry Keynote Address – “Learning Engineering: The Missing Discipline”
Dr. Robby Robson
CEO, Eduworks Corporation and Vice Chair of IEEE Learning Technology Standards Committee
Defense Keynote Address – “Global Integrated Operations and the Future Architecture of Global Integrated Training”
BG Stephen M. Neary
Deputy Director, Joint Training, Joint Staff J7

0930 – 1930

EXHIBIT HALL AND INNOVATION CORNER HOURS NORFOLK BALLROOM IV-VI

Innovation Corner: Virtual and Mixed Reality Showcase at MODSIM World 2018

The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2018. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event.

Demonstrations:

- NIH MERRTT and FVCT Haptics Demonstration: JANUS Research
- CRISPR Synthetic Biology Demo: Plas.md
- HoloJOC HoloLens Joint Operations Center: Engineering and Computer Simulations
- AR/VR Solutions for Air Crew Training: Bohemia Interactive

1000 – 1030

NETWORKING BREAK AND DEDICATED EXHIBIT TIME NORFOLK BALLROOM IV-VI

1030 – 1200

SPECIAL EVENT NORFOLK BALLROOM I-III

"The Simulation Century" – The Leap from Big Data to Immersive Intelligence

Our sixth annual session will address the growing issue of managing the human/ machine interface as we hurtle towards the Singularity. We will continue our discussion of how to achieve fluency with smarter balance between humans and machines to optimize outcomes. The Simulation Century Panel presentations this year will focus on technologies that immerse us more deeply in digital simulations.

Moderator

Richard Boyd

CEO, Tanjo, Inc., "Synthetic Populations"

Mike Conlow

Head of Technology Consulting, Blue State Digital, "Machine learning and simulation: coming to an election near you"

Jason Jerald

Co-Founder, NextGen Interactions, "Prototyping Tomorrow's Technologies using Today's VR"

David Smith

CEO Vision, CTO, Wearality, "The Future of VR/AR"

Stephanie Trunzo

VP, Globant, "The Enterprise Digital Journey"

1200-1330

LUNCH AND DEDICATED EXHIBIT TIME NORFOLK BALLROOM IV-VI

1330 – 1500

PAPER SESSION I

ANALYTICS AND DECISION-MAKING TRACK – JAMES I-III, 4TH FLOOR

1330 – 1500

Track Panel: Big Data, High Performance Computing, and Simulation

Theme: Big Data, High Performance Computing, and Simulation

Big data is...well...getting bigger. Bigger in size, bigger in business impact, and bigger in the infrastructure required to mine data and run artificial intelligence models. High performance computing (HPC) emerged in the 1960s as a way for a single computer to process information faster. They enabled better weather forecasting and aerodynamic research. Seymour Cray quipped, "If you were plowing a field, which would you rather use: Two strong oxen or 1,024 chickens?" Fifty years later, supercomputers run molecular dynamics simulations based on massively parallel processing on many smaller, but capable, clusters. History reveals the response to Cray's question, "1,024 chickens, please." Using multiple clusters is the essence of modern computing. They are also present in our laptops. This panel will discuss the current state of HPC as well as future trends. Panelists will share their perspectives on how HPC is affecting their sectors – giving attendees an opportunity to consider their own enterprises in light of growing access to HPC resources.

Moderator

Jay Gendron

Associate Data Scientist, Booz Allen Hamilton

Dr. Justin Brunelle

Lead Researcher, MITRE Corporation

John Carl

Director, Army Account Group, Booz Allen Hamilton

Dr. Sunita Dodani

Founding Director, EVMS-Sentara Healthcare Analytics and Delivery Science Institute (HADSI)

Moderator

Dr. Eric Weisel

Acting Executive Director, Virginia Modeling, Analysis & Simulation Center

Dr. Michael Goodrich

Model Builder, USAA

Rusty Waterfield

Associate Vice President for University Services & Chief Information Officer, Information Technology Services, Old Dominion University

SCIENCE AND ENGINEERING TRACK – FRANK/SHANGRI LA/YORKTOWN, 2ND FLOOR

1330 – 1400

Leveraging Commercial Game Engines for Multi-Domain Image Generation

Ashley Medford

Consultant and Program Manager, ALM Consulting

1400 – 1430

Simulation-Based Design Optimization of a Propulsion System for an Unmanned Surface Vehicle

Taylor Franklin

Veteran of the U.S. Navy & Undergraduate Research Assistant, Old Dominion University

1430 – 1500

Preventing Premature Death in the M&S Lifecycle: Lessons Learned from Resurrection and Modernization of a Space System Contamination Model

Dr. Elaine E. Seasly

Contamination Control and Planetary Protection Lead, NASA

Agenda | Tuesday, April 24

TRAINING AND EDUCATION TRACK – MARRIOTT V-VII, 4TH FLOOR

1330 – 1400

Existential Correlation of System Complexity and Task Complexity: Lessons Learned from Problem Solving F-1 Combustion Instability

Dr. Ronald Freeman

Education and Outreach Coordinator, Space Operations and Support Technical Committee, AIAA, and Mars Exploration and Program Analysis Group

1400 – 1430

Evolution of Green Pig: Best Practices in Mobile App Design

Ashley Reardon

Human Factors Engineer Intern, Quantum Improvements Consulting

1430 – 1500

The Challenge of Designing Instructionally Sound Virtual Reality-Based Training

Mia Joe

Project Manager, Educational Technology, Newport News Shipbuilding

VISUALIZATION AND GAMIFICATION TRACK – CHESAPEAKE I-II, 4TH FLOOR

1330 – 1400

Visualizing and Simulating on Whole World Terrains

Peter Swan

Business Development, VT MAK

1400 – 1430

Graphical Representations Provide Insight into Life Cycle Planning Through Data Analytics

Julie Kent

Sr. Principal Systems Engineer, Raytheon Global Training Solutions

1430 – 1500

Visualization of the Process Interaction Worldview in Discrete Event Simulation

Thomas Tracey

Old Dominion University

Brian Delinila

Old Dominion University

1500 – 1530

NETWORKING BREAK AND DEDICATED EXHIBIT TIME NORFOLK BALLROOM IV-VI

1530 – 1700

PAPER SESSION II

ANALYTICS AND DECISION-MAKING TRACK – JAMES I-III, 4TH FLOOR

1530-1600

Hospitality, Big Data, and Restaurateurs: Does Modeling and Simulation Have a Seat at the Table?

Jay Gendron

Data Scientist, Booz Allen Hamilton

1600-1630

The VCS C-Seam Analytics Platform: A Monte Carlo Approach to Machine Learning

Andrew Turscak

Data Scientist, Newport News Shipbuilding

1630-1700

A Sustainability Assessment Model for Crop Rotation Alternatives

Saturnina Nisperos

PhD Student, Old Dominion University

SCIENCE AND ENGINEERING TRACK – FRANK/SHANGRI LA/YORKTOWN, 2ND FLOOR

1530-1600

IoT Applied to the Control and Monitoring in Substations

Dr. Alexandre Cardoso

Associate Professor and Coordinator of the Graduate Program in Electrical Engineering, Federal University of Uberlandia

1600-1630

Modeling of the Ionosphere Reveals Wide Bandwidth Available for a Virtual SATCOM Communication System

Dennis Watson

Retired U.S. Navy Officer & PhD Candidate, Old Dominion University

1630-1700

A Versatile Simulation Framework for Elastodynamic Modeling of Structural Health Monitoring

Dr. Elizabeth Gregory

Research Engineer, NASA

TRAINING AND EDUCATION TRACK – MARRIOTT V-VII, 4TH FLOOR

1530 – 1600

Assessing Performance and Usability of 3D Visualization Technologies for Anatomical Training

Andrew Wismer

Institute of Simulation and Training, University of Central Florida

1600 – 1630

Ready, Aim, Perform! Targeted Micro-Training for Performance Intervention

Lisa Babcock

General Dynamics Informational Technology

Dr. Julia Carpenter

Victor 12, Inc.

Agenda | Tuesday, April 24

1630 – 1700

Walking a Mile in Simulated Shoes: Development of an Assessment of Perspective Taking

Jennifer Klafehn

Associate Research Scientist, Educational Testing Service

VISUALIZATION AND GAMIFICATION TRACK – CHESAPEAKE I-II, 4TH FLOOR

1530 – 1630

Track Keynote: Games: The Solution to Build the Cyber Operations Workforce

Dr. Shane Gallagher

Learning Scientist/Sr. Researcher, Institute for Defense Analyses

1715 – 1900

ATTENDEE ONSITE NETWORKING EVENT NORFOLK BALLROOM IV-VI

Welcome Remarks

Dr. Benjamin Bell and Event Sponsor, VMASC Industry Association



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August 27 – 29, 2018 | TrainingSystems.org/events
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In collaboration with the National Training and Simulation Association (NTSA), the Advanced Distributed Learning (ADL) Initiative is excited to announce iFest 2018. iFest provides unique opportunities for military, government, industry, and academia professionals to share the latest in distributed learning innovations. This year's theme is the Future Learning Ecosystem with a focus on interoperability, learning data/analytics, and learning science.

This year will also include a "Hackathon" which is open to attendees and participating organizations. The goal of the hackathon is to create usable, xAPI-driven dashboards in support of ADL's Total Learning Architecture (TLA).

WEDNESDAY, APRIL 25

0700 – 1730

REGISTRATION

MAIN LOBBY – NORFOLK BALLROOM FOYER

0730 – 0830

CONTINENTAL BREAKFAST

NORFOLK BALLROOM IV-VI

0830 – 0845

MODSIM WORLD 2018 DAY TWO OPENING REMARKS

NORFOLK BALLROOM I-III

Matt Spruill

Chairman, Virginia Modeling and Simulation Partnership (VMSP)

Introduction of Senior Leader Panel

Dr. Benjamin Bell

President, Eduworks Corporation, MODSIM World 2018 Conference Chair

0845 - 1000

SPECIAL EVENT

NORFOLK BALLROOM I-III

Senior Leader Panel: Executing a Digital Strategy

Senior Leaders from Government and Industry will share their insights on successfully executing a digital strategy, which includes the integration of M&S into an organization's core value chain. Panel will discuss the critical elements that make up a digital strategy. Following their comments, attendees will have the opportunity to ask questions and gain a better understanding of the issues facing these leaders and the issues that M&S technology transformation can potentially address.

Moderator

RADM James Robb, USN (Ret)

President, National Training and Simulation Association (NTSA)

Dr. Patrick Lincoln

Computer Science Laboratory, SRI International

Dr. Harry Ketamo

Founder and Chairman, HeadAI

Dr. James Moreland

Acting DASD (Tactical Warfare Systems), Naval Warfare, OUSD A&S/A/Tactical Warfare Systems

Dr. Sae Schatz

Director, Advanced Distributed Learning Initiative

Dr. John Tangney

Division Director, Office of Naval Research

0930 – 1530

EXHIBIT HALL AND INNOVATION CORNER HOURS

NORFOLK BALLROOM IV-VI

Innovation Corner: Virtual and Mixed Reality Showcase at MODSIM World 2018

The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2018. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event.

Demonstrations:

- VR Haptics Demonstration: JANUS Research
- CRISPR Synthetic Biology Demo: Plas.md
- HoloJOC HoloLens Joint Operations Center: Engineering and Computer Simulations
- AR/VR Solutions for Air Crew Training: Bohemia Interactive

1000 - 1030

NETWORKING BREAK AND DEDICATED EXHIBIT TIME NORFOLK BALLROOM IV-VI

1030 - 1115

GOVERNMENT KEYNOTE ADDRESS NORFOLK BALLROOM I-III

Introduction of Government Keynote Speaker

Dr. Benjamin Bell

Eduworks Corporation, MODSIM World 2018 Conference Chair

Government Keynote Address

Mr. Robert Burns

Deputy Director, Homeland Security Advanced Research Projects Agency (HSARPA)

1115 - 1200

DEFENSE KEYNOTE ADDRESS NORFOLK BALLROOM I-III

Introduction of Defense Keynote Speaker

RADM James Robb, USN (Ret)

President, National Training and Simulation Association (NTSA)

Defense Keynote Address

MG Maria R. Gervais

Deputy Commanding General, Combined Arms Center - Training

1200 - 1330

LUNCH AND EXHIBIT TIME NORFOLK BALLROOM IV-VI

1300 - 1330

SPECIAL EVENT – M&S CHALLENGE COMPETITION PRESENTATION NORFOLK BALLROOM I-III

The M&S Challenge Competition is a unique event where talented teams use the power of M&S to solve problems important to their community, government, business or industry sector. Developers, analysts, and subject matter experts participate in this competition and demonstrate the power of M&S. Finalists will present their projects and answer questions from the judges. All conference attendees are encouraged to join us in Norfolk Ballroom I-III following the luncheon to observe this event.

Participants

Molly Atwater

College of William & Mary

Gul Ayaz

Old Dominion University

Gheramy Guzman

Old Dominion University

Christopher Schultz

Bishop Moore Catholic High School

Lawrence Stempkowski

Bishop Moore Catholic High School

1330 - 1500

PAPER SESSION III

ANALYTICS AND DECISION-MAKING TRACK – JAMES I-III, 4TH FLOOR

1330 - 1400

Shifting Data Collection from a Fixed to an Adaptive Sampling Paradigm

Dr. Erik Axdahl

Research Aerospace Engineer, NASA Langley Research Center

1400 – 1430

The Last Mile in Analytics and Decision Making

Jeff McCrindle

Vice President of Sales, Yseop

1430 – 1500

A Genetic Model for the Evolution of Complex Technologies and its Application to Economic Development

Devin Markovits

Co-Founder and Team Lead for Invention Analysis and Technology Mining, Innovation Business Partners

SCIENCE AND ENGINEERING TRACK – FRANK/SHANGRI LA/YORKTOWN, 2ND FLOOR

1330 - 1400

A Multi-Level Universal Specification for Intelligent Characters (MUSIC)

Dr. Todd W. Griffith

Co-Founder, Chief Technology Officer and Director, Discovery Machine, Inc.

1400 – 1430

System Engineering: Optimizing Creation of Conversational Virtual Human Avatars

Dr. Dan Davis

Retired U.S. Navy Commander and Consultant, University of Southern California

1430 – 1500

Reduction of Language Model Data Bases: Overcoming Chabot Implementation Obstacles

Nicholas Kaimakis

Undergraduate Research Assistant, University of Southern California

TRAINING AND EDUCATION TRACK – MARRIOTT V-VII, 4TH FLOOR

1330 - 1430

Track Keynote: Advanced Learning Concepts

Jeffrey A. Raver

Vice President and Training Sub Segment Manager, Science Applications International Corporation (SAIC)

1430 – 1500

Training to Fight in a Denied, Degraded, and Disrupted Space Operational Environment

Christopher Dupre

Military Analyst, Modeling and Simulation, CTR SMDC/ARSTRAT, G37 TREX AOCE, Inc.

VISUALIZATION AND GAMIFICATION TRACK – CHESAPEAKE I-II, 4TH FLOOR

- 1330 - 1400 **Automated Generation of Holographic Heart from Coronary Tomography for Medical Diagnostics**
Dr. Gerson Flavio Mendes Lima
Federal University of Uberlandia
- 1400 – 1430 **Technology Acceptance of a Virtual Tactical Combat Casualty Care Simulation**
Matthew Hackett
Science and Technology Manager, Army Research Laboratory
- 1430 – 1500 **Child-Centric Interactive Exercise Devices (CCIED) and System for Conductive Education Therapy**
Chaithanya Renduchintala
Researcher, Institute of Simulation and Training, University of Central Florida

1500 – 1530 **NETWORKING BREAK AND DEDICATED EXHIBIT TIME** NORFOLK BALLROOM IV-VI

1530 – 1700 **PAPER SESSION IV**

ANALYTICS AND DECISION-MAKING TRACK – JAMES I-III, 4TH FLOOR

- 1530 – 1600 **The Application of Data Farming and Wargaming to Coalition Decision-Making**
Dr. Gary Horne
Technical Director of Modeling & Simulation Solutions, MCR Global

Dr. Wayne Stilwell
CEO, Stilwell Technology and Robotics
- 1600 – 1630 **Simulation Based Leadership Decision Support Simulator for Countering Weapons of Destruction**
Dr. Daniel Barber
Assistant Research Professor, University of Central Florida - Institute for Simulation and Training
- 1630– 1700 **The Acquisition System is Broken – But Not for the Reasons You Think**
Luis Velazquez
Branch Head of Future Capabilities & Innovation, Marine Corps Systems Command

TRAINING AND EDUCATION TRACK – MARRIOTT V-VII, 4TH FLOOR

1530 – 1600

A “Stories-as-a-Service” Architecture for Enriching Training Simulations

Dr. Benjamin Bell,
President, Eduworks Corporation

1600 – 1630

Validating Simulators for Live, Virtual, Constructive Exercises: A Methodology

Robert Dunn
Research Associate, Prodigy Lab, Institute for Simulation and Training, University of Central Florida

1630– 1700

A Taxonomy for the Evaluation of Training Simulations and Environments

Scott Harris
Faculty Research Associate, Institute for Simulation and Training, University of Central Florida

VISUALIZATION AND GAMIFICATION TRACK – FRANK/SHANGRI LA/YORKTOWN, 2ND FLOOR

1530 - 1700

Track Panel @ MODSIM:

In 2017, the Innovation Panel @ MODSIM examined how Virtual, Augmented and Mixed Reality technologies were poised to change modelling and simulation in verticals such as Defense, Healthcare and beyond. In 2018, we'll discuss how these technologies have evolved over the past twelve months, if they've lived up to the hype and what the future holds. In addition to XR, we'll look at how ambient computing and voice assistants are opening new doors for immersive training. Join us for a wide ranging panel where we will look at the landscape of XR and ambient computing while discussing best practices for leveraging these powerful new tools in simulation.

Moderator

Vance Souders
CEO, Plas.md

John Burwell
Business Development, Bohemia Interactive

Shane Taber
Development Director, ECS

Kishan Shetty
Principal Engineer, Janus Research

VISUALIZATION AND GAMIFICATION TRACK – CHESAPEAKE I-II, 4TH FLOOR

1530 – 1600

Benefits of Applying Virtual and Augmented Reality to the Test and Evaluation of Autonomous Vehicles

Dr. James Leathrum Jr.
Associate Professor, Old Dominion University

1600 – 1630

Evaluating the Applicability of Repurposed Entertainment Virtual Reality Devices for Military Training

Dr. Douglas Maxwell
Senior Research Engineer, Aptima, Inc.

1730 – 1930

OFFSITE NETWORKING EVENT **THE HARBOR CLUB AT WATERSIDE DISTRICT**

Come network with other MODSIM attendees! The event will be held on the second floor of the Harbor Club, with an open, lively atmosphere and floor to ceiling windows. You can also choose to spend your evening outside on the terrace and enjoy unmatched views of the Elizabeth River while enjoying warm fire pits.

Pre-registration and pre-payment are required for this event

THURSDAY, APRIL 26

0730 – 1200

REGISTRATION – MAIN LOBBY NORFOLK BALLROOM FOYER

0730 - 0830

CONTINENTAL BREAKFAST NORFOLK BALLROOM IV-VI

0830 - 1000

DEFENSE AND HOMELAND SECURITY PANEL NORFOLK BALLROOM I-III

“Use and Advancement of M&S Technologies for Defense and Security”

This moderated panel discussion will highlight the innovative use of technology and data to facilitate:

- Complex decision making in areas such as cyber and energy security, spectrum management, acquisition and interoperability
- Advanced training and education, including blended and distributed learning
- Advances in big data, artificial intelligence, cognitive computing, and the internet of things.

Moderator

LCDR Chris Davidson

Naval Surface Warfare Center Dahlgren Division - Dam Neck Activity

Dr. Van Brewer

External R&D Principal, Advanced Distributed Learning (ADL) Initiative

Dr. David Fautua

Chief, Individual Training & Learning, Deployable Training Division, Joint Staff J7

Dr. Syed Mohammad

Director, HSARPA Modeling and Simulation

Brian Vogt (LTC, USA)

NATO Allied Command Transformation

1000 - 1030

BREAK AND NETWORKING LOCATED ON FOURTH FLOOR

1000 – 1200

STEM EVENT NORFOLK BALLROOM IV-VI

1030 – 1200

PAPER SESSION V

ANALYTICS AND DECISION-MAKING TRACK – JAMES I-III, 4TH FLOOR

1030 – 1100

Rapid Analysis of Simulation Outputs for Use in Emergency Preparedness in Animal Disease Outbreaks

Melissa Schoenbaum

Biological Scientist and Data Management Specialist, USDA-APHIS-VS-CEAH

1100 – 1130

Visualization and Pre-Processing of Intensive Care Unit Data Using Python Data Science Tools

Dr. Jacob Barhak

Independent Researcher Specializing in Chronic Disease Modeling

1130 – 1200

Simulation-Based Evaluation of Medical Workstations Designed for Human Space Exploration

John Paul Asija

Research Assistant, Old Dominion University - Darden College of Education

Jacob Richardson

Intern, Jefferson Applied Research

SCIENCE AND ENGINEERING TRACK – CHESAPEAKE I-II, 4TH FLOOR

1030 – 1130

Track Keynote: Humans on Mars Sustainability

Dr. Robert Moses

Aerospace Technologist, NASA Langley Research Center

1100 – 1200

Use of Real-Time, Predictive Human Modeling for Spatial Disorientation Detection and Mitigation

Ron Daiker

Technical Lead and Research Engineer, NASA

TRAINING AND EDUCATION TRACK – MARRIOTT V-VII, 4TH FLOOR

1030 – 1100

Enhancing Trainee Immersion with Goal-Directed, Reactive Populations and Realistic Surroundings

Collin A. Puskaritz

Product Development Manager, Discovery Machines

1100 – 1130

Critical Thinking Training: Proven New Technologies for Engaging DoD Personnel

Nicholas Kaimakis

Undergraduate Research Assistant, University of Southern California

1130 – 1200

An Immersive Approach to Providing Mishap Awareness Scenario Training for Ensuring Readiness (MASTER)

Zach Kiehl

Research Engineer, Aptima, Inc.

1200 – 1330

LUNCH AND NETWORKING BREAK

NORFOLK BALLROOM IV-VI

1330 - 1500

SIMULATION FOR THE COMMON MAN: HOW DO WE MAKE M&S ACCESSIBLE?

JAMES I-III, 4TH FLOOR

Given the power of insight and learning that simulation provides, you might question why simulations are not more widely used. This facilitated interactive brainstorming session intends to discuss this question and others to try and understand how our M&S community can reach new users and decision makers. Part of our goal is to try and understand what our equivalent to the “got milk?” slogan would be. The outcomes of the workshop will be published and presented at I/ITSEC to allow the discussion to continue. All attendees welcome.

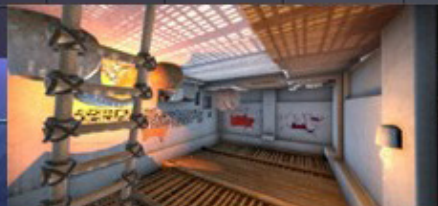
Facilitator:

Dr. Andy Collins

Research Assistant Professor, Old Dominion University

Diverse Companies

ACADEMIA



Advancing M&S Capabilities



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www.vmasc.odu.edu

TUESDAY, APRIL 24

INNOVATION CORNER

0930 - 1830 | NORFOLK BALLROOM IV-VI

Virtual and Mixed Reality Showcase at MODSIM World 2018

The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2018. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event. Participating companies JANUS Research, Plas.md, Engineering and Computer Simulations, and Bohemia Interactive.

THE SIMULATION CENTURY

1030 - 1200 – NORFOLK BALLROOM I-III

Our sixth annual session will address the growing issue of managing the human/ machine interface as we hurtle towards the Singularity. We will continue our discussion of how to achieve fluency with smarter balance between humans and machines to optimize outcomes. The Simulation Century Panel presentations this year will focus on technologies that immerse us more deeply in digital simulations.

WEDNESDAY, APRIL 25

SENIOR LEADER PANEL

0845 - 1000 – NORFOLK BALLROOM I-III

Senior Leaders from Government and Industry will share their insights on the role that M&S has in their organizations, their perspective on the issues and impact of M&S, and discuss gaps that M&S can fill in the future. Following their comments, attendees will have the opportunity to ask questions and gain a better understanding of the issues facing these leaders and issues that M&S technology transformation can potentially address.

INNOVATION CORNER

0930 - 1530 - NORFOLK BALLROOM IV-VI

Virtual and Mixed Reality Showcase at MODSIM World 2018

The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2018. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event. Participating companies JANUS Research, Plas.md, Engineering and Computer Simulations, and Bohemia Interactive.

M&S CHALLENGE COMPETITION

1300 - 1330 – NORFOLK BALLROOM I-III

The M&S Challenge Competition is a unique event where talented teams use the power of M&S to solve problems important to their community, government, business or industry sector. Developers, analysts, and subject matter experts participate in this competition and demonstrate the power of M&S. Finalists will present their projects and answer questions from the judges. All conference attendees are encouraged to join us in Norfolk Ballroom I-III following the luncheon to observe this event.

Special Events

THURSDAY, APRIL 26

DEFENSE AND HOMELAND SECURITY PANEL

Use and Advancement of M&S Technologies for Defense and Security

0830 - 1000 – NORFOLK BALLROOM I-III

This moderated panel discussion will highlight the innovative use of technology and data to facilitate:

- Complex decision making in areas such as cyber and energy security, spectrum management, acquisition and interoperability
- Advanced training and education, including blended and distributed learning
- Advances in big data, artificial intelligence, cognitive computing, and the internet of things.

STEM EVENT

1000 - 1200 – NORFOLK BALLROOM IV-VI

The MODSIM STEM event provides the conference a unique opportunity to contribute directly to the school experience of the youth who are just beginning to formulate their dreams for the future. The US Department of Commerce projects that growth in STEM occupations, like those in modeling and simulation (M&S), will outpace the growth in other occupations at nearly twice the rate. Developing solutions for climate change, energy sustainment, infrastructure, biomedicine, epidemiology, national security, and more requires STEM literacy. To become our nation's future innovators, our students need to not only understand technology but also embrace science, engineering, and math. STEM needs to excite and inspire our digital natives. During the MODSIM STEM event, approximately 100 area high school students will get the opportunity to see firsthand the world of M&S. Students will rotate through hands-on M&S demonstrations provided in the exhibit hall to see STEM in action

The students will represent the following schools:

- IC Norcom High School
- Landstown High School

SIMULATION FOR THE COMMON MAN: HOW DO WE MAKE M&S ACCESSIBLE?

1330 - 1500 - JAMES I-III, 4TH FLOOR

Given the power of insight and learning that simulation provides, you might question why simulations are not more widely used. This facilitated interactive brainstorming session intends to discuss this question and others to try and understand how our M&S community can reach new users and decision makers. Part of our goal is to try and understand what our equivalent to the "got milk?" slogan would be. The outcomes of the workshop will be published and presented at I/ITSEC to allow the discussion to continue. All attendees welcome.

Facilitator:

Dr. Andy Collins

Research Assistant Professor, Old Dominion University



NATIONAL TRAINING AND SIMULATION ASSOCIATION

The National Training and Simulation Association (NTSA) is America's premier organization representing the interests of the modeling and simulation community worldwide. As such, it serves as a constant point of contact for government, academia, industry, research organizations and the military to exchange information, share knowledge, align business interests and in general stimulate growth and overall advancement of the industry. NTSA pursues these goals through a series of conference, meetings and exhibitions throughout the year. NTSA produces The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), which is the world's largest conference and exhibition dedicated to modeling and simulation. While NTSA primarily serves the North American community of practice, many of its members and participants are non-US. NTSA is a key member of the International Training and Simulation Alliance (ITSA), a worldwide group of simulation associations that promotes knowledge and information about training and simulation worldwide.

RADM James A. Robb,
USN (Ret.)
President

Debbie Langelier, CEM
Assistant Vice President

Shannon Burch, CEM
Director of Exhibits and
Sponsorships

Patrick Rowe, CAE
Director, Membership and
Certification

Rebecca Epstein
Meeting Manager

The Simulation Century Biographies

Tuesday, April 24 | 1030 – 1200 | Norfolk Ballroom I-III



RICHARD BOYD

CEO

Tanjo, Inc.

Richard Boyd is the CEO of Tanjo Inc, a human-based neural net company designed to achieve the right balance between humans and automation to optimize outcomes. Over the last twenty-six years Richard has led or helped create some of the most innovative game technology companies in the industry. He has served as a game

technology consultant for a wide variety of industries including energy, healthcare, education and motion pictures. At Aerospace giant Lockheed Martin he created and led a group of innovative engineers and designers across all mission areas called Virtual World Labs. Richard joined Lockheed Martin in 2007 with the acquisition of 3Dsolve, a North Carolina based computer game technology firm where he was founder and CEO. Richard

served for a decade on the executive management team of Virtus Corporation where he helped create several pioneering computer gaming companies including Red Storm Entertainment, with author Tom Clancy; iRock Entertainment with Ozzy Osbourne; and Timeline Computer Entertainment, with author Michael Crichton.



MIKE CONLOW

Head of Technology Consulting
Blue State Digital

Mike Conlow leads the Technology Consulting practice at Blue State Digital. Mike designs custom technology solutions for Blue State Digital clients, working closely with BSD's national political clients.

Before coming to BSD, Mike was the Chief Technology Officer for Michael Bloomberg's Everytown for Gun Safety. He also served as a senior technology consultant for other progressive causes including Organizing for Action and Amnesty International.

Mike was also the Deputy Chief Technology Officer for President Obama's re-election campaign in Chicago, responsible for designing the revenue process that raised over \$1 billion for the campaign. Teams he managed were also responsible for some of the most visible and technical achievements of the Obama campaign, including online engagement platforms, data integration, analytics infrastructure, and social media outreach tools.

Before moving to the Obama campaign in April 2011, Mike was the Deputy Technology Director at the Democratic National Committee and Organizing for America. At the DNC, Mike oversaw large

teams responsible for network infrastructure and security, data privacy, and software development. In 2008 and 2009, Mike was Director of Analytics for OMP, a fundraising strategy firm, where he developed online and direct mail fundraising strategies for large national non-profits. During the general election in 2008, Mike was on the Obama campaign's Technology team working on data warehousing and analytics. Mike started his career as a Research Analyst at the Philadelphia Federal Reserve Bank.

Mike grew up in Philadelphia and graduated from the University of Massachusetts – Amherst.



JASON JERALD

Co-Founder
NextGen Interactions

Jason Jerald, PhD, is Co-Founder and Principal Consultant at NextGen Interactions, is Adjunct Faculty at Duke University, serves on multiple advisory boards of companies focusing on VR technologies, and speaks about at various events throughout the world.

Jason has been creating VR systems and applications for over 20 years. He has been involved in over 70 VR projects across

more than 40 organizations including Valve, Oculus, Virtuix, Sixense, NASA, AT&T, General Motors, Raytheon, Lockheed Martin, three U.S. national laboratories, and five universities. Jason's work has been featured on ABC's Shark Tank, on the Discovery Channel, in the New York Times, and on the cover of the MIT Press journal Presence. He has held various technical and leadership positions, and has served on the ACM SIGGRAPH, IEEE Virtual Reality, and IEEE 3D User Interface Committees.

Jason earned a Bachelor of Computer Science degree with an emphasis in Computer Graphics and Minors in Mathematics and Electrical Engineering from Washington State University. He earned a Masters and a Doctorate in Computer Science from the University of North Carolina at Chapel Hill with a focus on perception of motion and latency in VR. Jason has authored various publications and patents directly related to VR, most notably "The VR Book: Human-Centered Design for Virtual Reality."

The Simulation Century Biographies

Tuesday, April 24 | 1030 – 1200 | Norfolk Ballroom I-III



DAVID SMITH

*CEO Vision, CTO
Wearality*

David Smith is a computer scientist and entrepreneur who has focused on interactive 3D and using 3D as a basis for new user environments and entertainment for over thirty years.

David is currently CEO of CEO Vision and CTO and Founder of the VR/AR company Wearality, where he created the Wearality Sky featuring the widest field of view lenses in focus everywhere.

As a Senior Fellow at Lockheed Martin MST he focused on next generation human centric computing and collaboration. He developed many key technologies including extreme wide field of view lenses for AR (over 140° field of view) and immersive VR (180° field of view with a single lens). He was the designer of the DoD Virtual World Framework – a browser based 3D collaboration system.

He was the chief architect of the Open Croquet Project, where he worked with Alan Kay (Turing Award winner), Andreas Raab, and David P. Reed (architect of TCP/IP). He was CTO and co-founder of Teleplace, Inc.

providing a collaboration platform developed for enterprises, and co-founder of Tanjo Inc, a machine learning company.

In 1987, he created “The Colony”, the very first real-time 3D adventure game/shooter and the precursor to today’s first-person shooters. The game won the “Best Adventure Game of the Year” award from MacWorld Magazine. In 1988, He used these technologies to create a virtual set and virtual camera system used by James Cameron for the movie The Abyss. He founded Virtus Corporation in 1990 and developed Virtus Walkthrough, the first real-time 3D design application for personal computers.



STEPHANIE TRUNZO

*VP
Globant*

Stephanie Lynn Trunzo is the Chief Operating Officer and Chief Digital Officer for PointSource where she has helped to double revenue year over year, and made the INC 5000 3 consecutive years. Stephanie has been instrumental in reinventing this IBM Premier Business Partner into a top digital transformation force, leading the company to recently be acquired by Globant.

Stephanie collaborates with clients to explore the user journey and craft transformative strategies. She is rapidly identifying ways digital revolutionizes how people live and work across a variety of industries, including Finish Line, Allstate, Primerica, PTC, LabCorp, and others.

Stephanie has managed development, design, user experience, delivery, sales, and marketing across both large corporations and growing small businesses.

During her 13 years at IBM, Stephanie ran a worldwide development organization for the IBM Rational Jazz Platform, a data-driven integration platform. The platform focused on well-defined specifications bringing capabilities to market leveraging Cloud, mobile delivery models and social web paradigms. Stephanie expanded the ALM story to include a heterogeneous set of tools, supporting the OSLC and Eclipse communities.

Senior Leadership Panel Biographies

Wednesday, April 25 | 0845 – 1000 | Norfolk Ballroom I-III



RADM JAMES A. ROBB, USN (RET.)

President

National Training and Simulation Association (NTSA)

James A. Robb graduated from Rensselaer Polytechnic Institute in

1972, earned a Master's of Science degree from the University of West Florida in 1973, and was designated a Naval Aviator in 1974. Promoted to Flag rank in January 1999, he served in increasing positions of responsibility in the Navy until his transition from active duty in March 2006.

His final assignment at sea was in command of the USS John C. Stennis Carrier Strike Group consisting of nine ships and over 8,000 sailors. Here he led the West Coast maritime response to 9/11 and prepared the Battle Group for support of operations in

Afghanistan. Earlier, he commanded Carrier Air Wing Nine embarked in USS NIMITZ where he was Strike Warfare Commander for naval forces supporting operation Southern Watch/Desert Storm. He also served as Deputy Commander for Carrier Air Wing Eleven, and commanded the "Screaming Eagles" of Fighter Squadron Fifty One.

Following 9/11, RADM Robb was assigned to the US Central Command as the Director of Plans, Policy and Coalition Affairs. In this capacity he developed strategic and operational plans guiding U.S. and Coalition efforts in the Middle East and was a key member of the forward deployed Battle Staff directing operations Enduring and Iraqi Freedom.

RADM Robb is also a recognized expert in operational tactics and training, serving as an instructor, test pilot and demonstration pilot in the F-14 TOMCAT. He was Lead Project Pilot and Officer in Charge of Navy/Marine Corps Special Operations flying Russian fighter aircraft in the Tonopah Test Ranges and later commanded the Navy Fighter Weapons School also known as TOPGUN.

During his career, he deployed nine times to every major theater of operations, logging over 5,000 flight hours and more than 1,000 carrier landings. Following transition from the Navy, Admiral Robb started an independent consultant business specializing in Strategic Planning and Enterprise process improvement.



DR. PATRICK LINCOLN

Computer Science Laboratory
SRI International

Dr. Patrick Lincoln is Vice President of Information and Computing Sciences,

and Director of the Computer Science Laboratory of SRI International, where he has worked since 1989. He is also the executive director of the Department-of-Homeland-Security-funded Cyber Security Research and Development Center, and he is the director of the SRI Center for Computational

Biology. Dr. Lincoln holds a Ph.D. in Computer Science from Stanford University and a B.Sc. in Computer Science from MIT. He has previously held positions at MCC, Los Alamos National Laboratory, and ETA Systems. Dr. Lincoln leads research in the fields of formal methods, computer security and privacy, computational biology, scalable distributed systems, and nano electronics. He has led multidisciplinary groups to high-impact research projects including symbolic

systems biology, scalable anomaly detection, exquisitely sensitive biosensor systems, strategic reasoning and game theory, and privacy-preserving data sharing. Dr. Lincoln has published dozens of influential papers, has over a dozen patents, and has served on scientific advisory boards for private and publicly-held companies, nonprofits, and government agencies and departments.

Senior Leadership Panel Biographies

Wednesday, April 25 | 0845 – 1000 | Norfolk Ballroom I-III



DR. HARRI KETAMO

Founder & Chairman
HeadAI

Dr. Harri Ketamo is an entrepreneur with over 20 years experience in learning sciences, data sciences and artificial intelligence. Currently he is founder & chairman of HeadAI, a company developing natural language based cognitive artificial intelligence, and advisor for Edunation (higher education), BrainQuake (serious games) and Satakunta University of Applied

Sciences (higher education). Furthermore, he's actively participating academic research as an adjunct professor at Tampere University of Technology and as a senior fellow at University of Turku. Ketamo has published 90 international peer-reviewed research articles and had more than 200 presentations in international forums. Previously he has been e.g. Academy of Finland -granted post-doc researcher, founder of gameMiner Ltd (gameAI + data mining), director of education

at Satakunta University of Applied Sciences and founder of SkillPixels Ltd (serious games). Ketamo has received several international awards and nominations related to his work, including e.g. European Innovative Games Award 2009 & World Summit Award 2010 with gameMiner, Microsoft App Awards 2014 & BETT Awards 2014 with SkillPixels and Alibaba Cloud Contest 2017 & Challenge Finland 2017 with Headai. He is awarded the Eisenhower Fellowship in 2017.



DR. JAMES MORELAND

Acting DASD (Tactical Warfare Systems), Naval Warfare
OUSD A&S/A/Tactical Warfare Systems

Dr. James D. Moreland, Jr. is Acting Deputy Assistant Secretary of Defense (Tactical Warfare Systems) and Director (Naval Warfare) within the Office of the Under Secretary of Defense for Acquisition and Sustainment, and has 30 years of experience in multiple engineering disciplines dealing with the design, development, integration, and acquisition of complex joint warfare systems and Major Defense Acquisition

Programs. He is an Adjunct Professor and Research Advisor at multiple universities in Engineering. Dr. Moreland earned a Ph.D. in Systems Engineering from George Washington University; an M.S. in National Resource Strategy from the Industrial College of the Armed Forces; an M.S. in Systems Engineering from Virginia Tech; and a B.S. in Mechanical Engineering from the University of Maryland. He is Defense Acquisition Workforce Improvement Act (DAWIA) Level III certified in Systems Planning, Research,

Development, and Engineering (SPRDE) and Program Management (PM). Dr. Moreland has received numerous engineering awards to include the Navy Superior Civilian Service Award, and the Navy Distinguished Civilian Service Award as well as multiple best technical paper awards from the American Society of Naval Engineers and the International Council on Systems Engineering.

Senior Leadership Panel Biographies

Wednesday, April 25 | 0845 – 1000 | Norfolk Ballroom I-III



DR. SAE SCHATZ

Director

Advanced Distributed Learning Institute

Sae Schatz, Ph.D., serves as the Director of the Advanced Distributed Learning

(ADL) Initiative, a research and development program under the Deputy Assistant Secretary of Defense for Force Education and Training. Before joining the Government in 2015, Sae worked as an applied human-systems scientist, with an emphasis on human cognition and learning, instructional technologies, adaptive systems, human performance assessment, and modeling and simulation. During that time, she led the authorship and execution of the Marine

Corps' Making Good Instructor Great course and accompanying instructor tool kit. She was also the chief scientist for the award-winning Border Hunter research effort and the Joint Staff J7's Blended Learning–Training project.

Sae has worked with the Defense training and education community for over 10 years. During that time her efforts frequently focused on ways to enhance individuals' higher-order cognitive skills (i.e., the mental, emotional, and relational skills associated with "cognitive readiness"). She has authored more than 50 peer-reviewed scholarly publications, led development of 3 military

textbooks, and received professional recognition for her publications and research, including best paper awards from the I/ITSEC and MODSIM conferences.

Sae also maintains close ties with her alma mater, the University of Central Florida. She formerly held an assistant professor position with the university, and she previously taught courses in visual design, web design and development, modeling and simulation, and human-systems interaction. Today, she continues to mentor UCF graduate students from the Institute for Simulation and Training, and she serves on the Digital Media Advisory Board.



DR. JOHN TANGNEY

Division Director

Office of Naval Research

Dr. John Tangney is Director of the Human and Bioengineered Systems Division

in the Warfighter Performance Department of the Office of Naval Research (ONR) in Arlington, Virginia. He serves as the senior focal point within ONR for discovery and invention investments in human and bio-inspired autonomous systems for affordable improvements in Naval mission effectiveness. Dr. Tangney oversees research and technology development in cognitive systems, natural intelligence, tutoring systems, realistic training, social media analysis, computational neuroscience, and robotics – in support of current and envisioned Naval capabilities.

Dr. Tangney entered the Senior Executive Service in January 2007 after 22 years in the Civilian Service. He served as a Program Manager at the Air Force Office of Scientific Research, responsible for basic research on human performance, biological information

processing, information fusion, and other related topics. In this role, he initiated basic research programs in auditory pattern and speech recognition, cognitive science and decision making, neural networks, computational neuroscience, spatial orientation, team decision-making, information fusion, and socio-cultural modeling, among others.

As Director for Laboratory Management in the Office of the Secretary of Defense on detail during 1998–1999, Dr. Tangney was responsible for policy and oversight of the research and development laboratories and centers in the Department of Defense.

While serving as Deputy for Research in the Secretary Air Force Directorate of Science and Technology, April 1994 through October 1995, Dr. Tangney was responsible for oversight and monitoring of the Air Force basic research portfolio, avionics, and other elements of the Air Force Science and Technology program.

Dr. Tangney was appointed Director, Division on Human Behavior and Performance, during 1990 while on sabbatical at the National Research Council. He was responsible for several committees that considered and reported on policy-relevant research related to current issues in human factors, training, vision, hearing, AIDS, and alcohol and drug abuse.

He received a Ph.D. in Cognitive Science from the State University of New York at Buffalo, specializing in models of auditory and visual pattern recognition and cognitive processes. He also holds an M.A. in National Security Studies from the National War College, Ft. McNair, Washington, D.C.

He was recognized by the International Neural Networks Society in 1990 for outstanding leadership in neural network computing and, in 2012, received the Biomedical Wellness Leadership Award from the SPIE Defense, Security, and Sensing chapter.

Defense and Homeland Security Panel Biographies

Thursday, April 26 | 0830 – 1000 | Norfolk Ballroom I-III



LCDR CHRIS DAVIDSON

Naval Surface Warfare Center Dahlgren Division - Dam Neck Activity

Lieutenant Commander (LCDR) Chris Davidson is a native of Hobart, Tasmania in Australia. He attended the

University of Tasmania, earning a Bachelor of Engineering degree with honors in Computer Systems Engineering in 1998, and graduated from the Royal Australian Naval College in 1999. He also earned a Masters degree in Engineering Science in 2003 from the University of New South Wales.

During his 20 year naval career, LCDR Davidson has completed several operational deployments including two to the Middle East Area of Operations. He has served in numerous leadership, engineering and acquisition positions ashore, including: ANZAC Frigate Project; Laser Safety Authority; Acoustic and Optronic Systems Engineer; Patrol Boat Tender Evaluation Group; In-Service Trials Officer; Naval and Shore Communications Sustainment Manager; and Senior Instructor for Combat Systems Courses.

In 2014, LCDR Davidson was endorsed as a 'charge qualified' Surface Combatant Engineer Officer in HMAS DARWIN (FFG 04) where he was the senior engineer and head of the Weapons Electrical Engineering Department.

Currently LCDR Davidson is serving in a personnel exchange posting with the US Navy in the Naval Surface Warfare Center Dahlgren Division - Dam Neck Activity (NSWCDD DNA), where he has gained experience as a Strike Force Interoperability Officer, and is now using cognitive computing techniques to develop a tool for Coalition Naval Force Interoperability Analysis.



DR. VAN BREWER

External R&D Principal Advanced Distributed Learning (ADL) Initiative

Dr. Van Brewer is the External R&D Principal for the Advanced Distributed Learning

Initiative, managing community of practice projects to enable ADL's strategic vision. He is an active researcher and practitioner in complex situations, decision making and cognition. Following twelve years in missile

& missile system development, he spent twenty-two years in Army Experimentation including serving as the Chief Scientist for the Joint and Army Experimentation Division. He continues to nurture these and diverse other interests, now adding distributed learning topics to the existing list of papers that are not getting written. This is at least partially due to his avocations of volunteering,

reading, gaming, walking, woodworking and repairing home improvement mistakes. Dr. Brewer has a B.A. in Physics from the University of Tennessee at Knoxville, an M.S.E.E. in Control Theory from the University of Alabama in Huntsville, and a Ph.D. in Engineering Management from Old Dominion University, where he is also an Adjunct Assistant Professor.



DR. DAVID FAUTUA

Chief, Individual Training & Learning, Deployable Training Division Joint Staff J7

David T. Fautua, PhD. (GS-15) is Chief, Individual Training & Learning Branch,

Deployable Training Division, Joint Staff J7. Previous positions included U.S. Joint Forces Command Research Coordinator, Irregular Warfare Training Division, and USJFCOM Academic Chair/Visiting Associate Professor of History and National Security at the Joint Forces Staff College. He also served as the special assistant to two NATO Supreme Allied Commanders (Transformation) and Commander, U.S. Joint Forces Command. Dr. Fautua was Chief of Strategic Planning at USJFCOM's Joint Futures Lab (J9) and

was formerly an assistant professor of military history at the United States Military Academy at West Point. He is a graduate of the University of Notre Dame, holds Master's degrees in business and history from Boston University and North Carolina State University respectively, as well as a Ph.D. in American history at the University of North Carolina at Chapel Hill. He attended the National War College in 2005-2006 as a research fellow. His articles on Army strategic policy, joint culture, national security. His articles on Army strategic policy, joint culture, national security issues, cognitive research and military history have appeared in such journals as Joint Force Quarterly, Armed Forces Journal

International, Commentary, Parameters, Military Review, Military Medical Journal and the Journal of Military History. He was the principle investigator of two award-winning research projects: 2015 I/ITSEC Best Paper on the institutionalization of blended learning into joint training and the 2010 NTSA-award winning Border Hunter research project. He also received the Moncado Prize from the Society for Military History for his JMH article on the "Creation of the U.S. Cold War Army." His research areas include joint culture, irregular warfare, Islamic history, civil-military relations and human social cultural and behavioral modeling. He is a former U.S. Army officer.

Defense and Homeland Security Panel Biographies

Thursday, April 26 | 0830 – 1000 | Norfolk Ballroom I-III



DR. SYED MOHAMMAD

Director

HSARPA Modeling and Simulation

Syed started his career in 2001 with U.S. Army Tank-automotive Research, Development, and Engineering Center (Warren, MI), supporting Army ground vehicle Modeling and Simulation activities within the Intelligent Ground Systems and Robotics Directorates. In 2008, he left TARDEC to join the Program Executive Office for Combat Support and Combat Service Support as the Lead Engineer for the Mine Resistant Ambush Protected (MRAP) RG-31 platform, and later served as the Deputy Product

Manager for MRAP All-Terrain Vehicles (M-ATV). As the civilian deputy, Syed provided acquisition oversight of all functions incidental to development, production, integration, testing, fielding, and sustainment of the M-ATV fleet consisting of over 8,500 vehicles and with a logistics footprint in excess of \$6B. Syed's final assignment with DOD was at the Pentagon as a Department of the Army Systems Coordinator for Force Projection, assigned to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. Throughout his

career, Syed has supported collaboration amongst the Acquisition, R&D, and Test & Evaluation communities.

Syed Joined the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) in 2014 and he currently serves as the Director for the Homeland Security Advanced Research Projects Agency (HSARPA) Modeling and Simulation Engine (MS-E). He has more than fifteen years of experience within the Federal Government supporting R&D and Acquisition activities.



LTC BRIAN VOGT, USA

NATO Allied Command Transformation

Lieutenant Colonel Brian Vogt, US Army, was commissioned an Armor Officer in 1996. He served as an armor officer in several leadership positions and commanded a tank company and headquarters company in two separate

tours in Baghdad. He served as a simulations operations officer since 2006 at Ft. Leavenworth, KS as a simulations analyst for the Synthetic Environment Core program. He most recently lead the ARCIC Early Synthetic Prototyping project. He is a graduate of the Armor Officer Basic Course and Advanced Course, Combined Arms Services Staff

School, Command and General Staff College, and the Naval Postgraduate School where he earned a MS in Modeling, Virtual Environments, and Simulations. He is currently serving at the NATO Allied Command for Transformation in Norfolk, VA.

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Conference Leadership Biographies



DR. BENJAMIN BELL | CONFERENCE CHAIR **NTSA** Corporate Member

President

Eduworks Government Solutions

Benjamin Bell is President of Eduworks Government Solutions where he directs the application of artificial intelligence to text analysis, intelligent tutoring, competency

modeling, content conversion and training across a spectrum of applications in military and national security sectors. He has held academic positions, performed in multiple executive roles in industry, and serves in numerous conference leadership

assignments. Dr. Bell is an assistant adjunct professor at Embry Riddle, holds a Ph.D. from Northwestern University and is a graduate of the University of Pennsylvania.



MARCO ESTRADA | DEPUTY CONFERENCE CHAIR **NTSA** Corporate Member

DoD Modeling and Simulation Product Manager Newport News Shipbuilding

Marco Estrada leads DOD Modeling and Simulation Product Management efforts at

Newport News Shipbuilding (NNS), a division of Huntington Ingalls Industries. He is also responsible for defining strategy for the development of simulation-based decision support tools. In addition, his responsibilities include modeling and simulation efforts for the USS Gerald R. Ford (CVN 78). He manages the Virtual Carrier (VCVN), which provides a federation of models for assessing the SGR performance of CVN 78 in support

of Developmental and Operational Testing (DT/OT) efforts, including Initial Operational Test and Evaluation (IOT&E) of CVN 78. His focus is on a customer-driven approach to developing effective tools for complex decision making.

Mr. Estrada has a degree in Industrial Technology from the Dr. Imrich Fischmann Institute, a career studies certification in Modeling and Simulation from Tidewater Community College and a Project Management Professional Certification from Old Dominion University. Since joining

the company, Mr. Estrada has managed various projects of Modeling and Simulation, including software development and analysis.

Mr. Estrada is a 22-year U.S. Navy Veteran. He is a recognized Aviation-Ship Integration expert. In his previous role as a carrier aviation Subject Matter Expert (SME), he led many aviation-ship interface projects at NNS.

He has served in the MODSIM World Conference Planning Committee since 2013 and is currently an active National Modeling & Simulation Coalition Policy Committee Member.



DAVID JONES | PROGRAM CHAIR

Founder and President

Quantified Design Solutions

David Jones leads cutting edge technology integration across commercial and government research and development efforts. As a founder and President of Quantified Design Solutions, he leads the development and integration of technology to support a variety of domains. He has served as a Principal Investigator for Office

of Naval Research, Army, and Office of the Secretary of Defense efforts focused on the development of adaptive virtual, mixed reality, and constructive training platforms. David's work focuses on the application of modeling and simulation to support the measurement and modeling of human states and optimization of systems based on them. Whether developing adaptive immersive training systems, game-based training, or

real-time support systems, the goal is to quantify what the user needs and provide the right support at the right time. Over the past 14 years he has applied this approach to lead advanced research efforts for the DoD, commercial clients, and universities and has presented his work at international conferences. He holds a Master of Science Degree in Industrial Engineering from the University of Central Florida.



NICK DRUCKER | DEPUTY PROGRAM CHAIR **NTSA** Corporate Member

Manager, Data Services
Newport News Shipbuilding

Nick Drucker is the Manager of Data Services at Newport News

Shipbuilding. In this role Mr. Drucker leads the data services team, a diverse group of data modelers, ETL programmers and SQL experts. The data services team is responsible for managing Newport News' data warehouse and facilitating cultivation of and reporting on a multitude of company

data streams. Prior to taking on this role Mr. Drucker served as a Product Manager; identifying new application areas for NNS M&S capabilities in the federal energy market space and providing strategic guidance to NNS product teams. Previously Mr. Drucker served as a Modeling and Simulation Analyst with NNS, leading project teams during the creation and utilization of modeling and simulation applications for multiple shipyard operations. Prior to joining NNS Mr. Drucker

served as an Analyst, Sr. Analyst and later Manager of Product Development and Analysis for a small modeling and simulation company in Portsmouth, VA. Mr. Drucker possesses a Master's Degree from Old Dominion University in International Studies with a concentration and certification in Modeling and Simulation as well as a Bachelor's Degree from Christopher Newport University in Political Science with a minor in Psychology.

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Track Chair Biographies

Analytics and Decision-Making



STEFANI WERNER | CHAIR **NTSA** Corporate Member

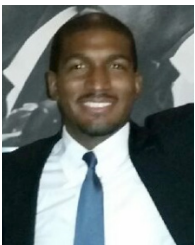
Modeling and Simulation Engineer
Newport News Shipbuilding

Stefani Werner is a Modeling and Simulation Engineer at Newport News

Shipbuilding. In this role Ms. Werner is responsible for developing models and tools, as well as performing analysis. She has worked on logistics simulations supporting

Ingalls Shipbuilding's major Department of Defense acquisition opportunities, as well as, several simulations for modeling nuclear operations for the Department of Defense. She has also served as technical lead and senior software developer on multiple nuclear modeling and simulation projects in support of the Department of Energy. Currently

Ms. Werner is working on tools to support spatial arrangements/analysis and projects related to the advanced analytics efforts at NNS. Ms. Werner received degrees from the College of William and Mary including a Bachelor of Science in Mathematics and Computer Science and a Master of Science in Computational Operations Research.



MALIK SAUNDERS | DEPUTY CHAIR **NTSA** Corporate Member

Modeling and Simulation Engineer
Newport News Shipbuilding

Malik Saunders is a Modeling and Simulation Engineer at Newport News

Shipbuilding (NNS) and an Adjunct Instructor of Computer Information Systems at ECPI University. In his engineering role at NNS, Mr. Saunders serves as an analyst and product owner of analytics models that provide decision support for a variety of shipyard operations.

Prior to joining NNS, Mr. Saunders worked as an Operations Research Analyst within the Analytics Research & Development department at Monsanto Company in St. Louis, MO. During his time at Monsanto, he developed optimization models for expediting multiple research workflows. As a native of the Hampton Roads area, a higher education advocate, and an analytics enthusiast, Mr. Saunders is excited to serve

on the program committee for the ModSim World Conference! Mr. Saunders possesses a Master of Science in Computational Operations Research from the College of William & Mary and a Bachelor of Science in Engineering from Princeton University in Operations Research & Financial Engineering.

Science and Engineering



LUKE DEVORE | CHAIR **NTSA** Corporate Member

Vice President, Business Development
Design Interactive, Inc.

Luke DeVore is the Vice President of Business Development at Design Interactive,

Inc., a Woman Owned Small Business focused on optimizing human performance via extended reality, biosignature analytics, and performance augmentation technologies. Prior to joining Design Interactive, Mr. DeVore was a Marine Corps Artillery Officer and a simulation analyst supporting the Simulation

Center at Camp Lejeune, NC. Mr. DeVore's experience with simulation begun while on active duty where he led the integration of the Deployable Virtual Training Environment (DVTE) system with underway training while aboard the USS Bataan. Originally a skeptic, Mr. DeVore quickly saw the value of simulation-based training when combined with thoughtful pedagogy and engaging, relevant scenario design. As the complexity and fidelity of simulations continue to evolve, Mr. DeVore's

personal fascination is with training systems that couple technical complexity with intuitive and effective designs that lower the barriers to Warfighter adoption and allow service members to plan, execute, and debrief their own simulation-based training. Mr. DeVore holds a Bachelor's degree in Political Science from the University of Pittsburgh and a Master's Degree in Management and Leadership from Webster University.



DR. JULIAN ABICH IV | DEPUTY CHAIR

Senior Human Factors Engineer
Quantum Improvements Consulting

Dr. Julian Abich IV is a Senior Human Factors Engineer at Quantum Improvements Consulting. Julian holds a Ph.D. in Modeling and Simulation with a specialization in Human Factors, a B.S. in Psychology, and two certificates in Design for Usability and Instructional Design for Simulations from the University of Central Florida. He has over 11 years of experience applying human factors & ergonomics principles, modeling & simulation approaches, and instructional

design methodology to the assessment, prediction, and improvement of human performance, user experience, human-computer/robot interaction, and training. His past work concentrated on investigating the role subjective, objective, and physiological measures play in assessing workload and stress in complex environments to ultimately build a closed-loop system, such as one involving a human and robot team or adaptive trainers. Taking a user-centered approach, his recent research focuses on the application of modeling and simulation

to assess the usability and effectiveness of training systems and designing these systems for various platforms such as augmented reality, virtual reality, and mobile devices. Julian also advocates for Science, Technology, Engineering, Arts, and Mathematics (STEAM) outreach efforts by encouraging public support and fostering posterity's interest within these domains. He has a personal interest in writing and performing music, world traveling, and various extreme sports with a recent certification as a B-License skydiver.

Training and Education



KERRI CHIK | CHAIR

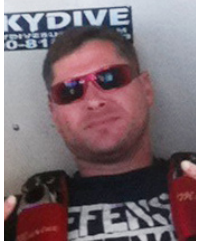
Senior Solutions Consultant/Research Scientist
TiER1 Performance Solutions

Ms. Chik is a Research Scientist and Senior Solutions Consultant at TiER1 Performance Solutions. She specializes in areas of leadership and team development, performance measurement, data analysis, and instructional design. She has applied this expertise to the optimization of training programs and the assessment of human performance. Ms. Chik has also been involved in developing performance measures, conducting training content analyses, identifying training gaps, and

evaluating the effectiveness of training for various military and commercial organizations. In addition, her recent work includes identifying and creating critical thinking skills assessment for the Maneuver Captain's Career Course at Fort Benning, building a knowledge elicitation tool to help facilitate agent development, and identifying Garrison leadership competencies. Ms. Chik has also led international organizations with executive team analysis, workshop creation, facilitation, and leadership and team development. Ms. Chik holds a M.A. in Industrial and Organizational Psychology

from East Carolina University and a B.S. in Psychology and Sociology from James Madison University. She is a member of the Society for Industrial and Organizational Psychology, the American Psychological Association, the Human Capital Institute, and the Association for Talent Development. She also holds an adjunct professor position at North Carolina Wesleyan College, serves on the training subcommittee for The Interservice/Industry Training, Simulation and Education Conference, and is a member for the SIOP Education and Training Subcommittee.

Track Chair Biographies



SHAWN MCCANN | DEPUTY CHAIR

Senior Scientist

Cognitive Performance Group

Shawn has 18-years of experience in designing and leading professional development. He has also taught graduate courses as an adjunct professor for Fairleigh Dickinson University. His current work involves innovative facilitation, strategy development, team building, and cultivating creativity.

Shawn earned his doctorate in adult learning and leadership from Columbia University, Teachers College in 2017. His baccalaureate in international transportation and trade came from New York Maritime College in 2004. Shawn's current research interests include transformative learning, flow, and communities of practice. For his doctoral dissertation, he studied a community of

practice of elite athletes and their use of mobile learning to support flow states. Prior to joining CPG, Shawn was an active duty Marine infantry officer. Before retiring from twenty-years of military service, he led Train the Trainer School – West as an education officer and certified instructors, curriculum developers, and school managers.

Visualization and Gamification



DANNY WILLIAMS | CHAIR **NTSA** Corporate Member

Business Development Executive
VT MAK

Danny Williams has more than 15 years of experience in the Modeling & Simulation industry. He is currently a Business Development Executive at VT MAK, a Cambridge, MA-based company that builds a suite of software for simulation interoperability, scenario development and immersive 3D visualization.

Mr. Williams began his career in modeling & simulation in 2001 at BAE Systems as a software developer on the Future Combat Systems and Combat ID Programs. Mr. Williams was hired by the Johns Hopkins University Applied Physics Lab in 2005 where he led a team of engineers developing a number of Joint, Army, and Navy simulation and training programs.

In 2011, Mr. Williams became the Deputy Program Manager for Modeling and Simulation Programs for IPKeys Technologies and helped lead the development of I-GAME, a military training application developed for the Joint IED Defeat Organization. Mr. Williams joined VT MAK in 2013 as a Business Development Executive, where he now works to design and develop flexible and robust Live, Virtual, and Constructive simulation solutions for MAK's diverse set of customers.

Special Events



ANDY COLLINS | CHAIR **NTSA** Corporate Member

Research Assistant Professor
Old Dominion University

Dr. Andy Collins is a research assistant professor at the Virginia Modeling, Analysis, and Simulation Center (VMASC) at Old Dominion University. He has a Ph.D. in Operations Research from the University of Southampton, and his undergraduate degree in Mathematics was from the University of Oxford. Operations research is the study and practice of "giving analytical support to decision-makers." Dr. Collins has analyzed a

wide spectrum of problems in domains that include airline pricing, bureaucracy costs, commercial organizational structures, criminal gang formation, critical infrastructures, farming decision-support, key performance indicator selection, military insurgencies, medical school scheduling, pedestrian evacuation of family groups, refugee movement, revenue management, strategic group formation, tolling mechanisms, terrorism risk, traffic incident modeling, visual rhetoric in simulation. He has published over

70 peer-review articles in these domains. His projects have been funded to the amount of approximately \$3 million. Dr. Collins' passion is the development and application of Agent-based modeling and simulation (ABMS), and he has developed several research simulations including an award-winning investigation into the foreclosure contagion that incorporated social networks. His website and full resume are at www.drandrewjcollins.com.

Defense and Homeland Security Workshop Biographies

Defense and Homeland Security – “Use and Advancement of M&S Technologies for Defense and Security”



JOE L. BRICIO | CHAIR

International Cooperative Engagement Manager Navy International Programs Office (NIPO)

Joe Bricio has over 25 years experience in the Systems Engineering,

Technical and Engineering Management, Modeling and Simulation, and Naval Coalition Interoperability obtained from work in industry, academia and government. Currently assigned as an International Cooperative Engagement Manager with Navy International Programs Office (NIPO). He is responsible for Resource Planning in partnership with ONR Global for Cooperative Architecture, and Technology development for international Research, Development, Test and Evaluation (RDT&E) cooperative engagements and opportunity

identification with Naval program offices. His responsibilities encompass global technology market research and strategic planning necessary for identification of viable, feasible, and suitable international RDT&E cooperative opportunities.

From 2012 to 2014 Exchange Scientist and Engineering Program to Defence Science and Technology Organisation (DSTO), in Sydney Australia. Contributed to the definition of Royal Australian Navy's Combat System Engineering and Interoperability Framework concept. Additional duties includes System Engineering and Modeling and Simulation expertise to operational test and evaluation activities for HMAS Canberra.

Industry Experience: Sr. Program Manager at CAE Professional Services, Project Scientist at Virginia Modeling and Analysis Center (VMASC), and Modeling and Simulation Engineer with Old Dominion Research Foundation at the Center for Advanced Engineering Environments at NASA Langley. In these positions Joe contributed with development of new approaches for 3 dimensional geospatial database development for training and system performance analyses, and technologies for distributed learning. Joe also had responsibilities of business development including development and execution of business capture campaigns within aerospace and defense markets.



LCDR CHRIS DAVIDSON

Naval Surface Warfare Center Dahlgren Division - Dam Neck Activity

Lieutenant Commander (LCDR) Chris Davidson is a native of Hobart, Tasmania in Australia. He attended the

University of Tasmania, earning a Bachelor of Engineering degree with honors in Computer Systems Engineering in 1998, and graduated from the Royal Australian Naval College in 1999. He also earned a Masters degree in Engineering Science in 2003 from the University of New South Wales.

During his 20 year naval career, LCDR Davidson has completed several operational deployments including two to the Middle

East Area of Operations. He has served in numerous leadership, engineering and acquisition positions ashore, including: ANZAC Frigate Project; Laser Safety Authority; Acoustic and Optronics Systems Engineer; Patrol Boat Tender Evaluation Group; In-Service Trials Officer; Naval and Shore Communications Sustainment Manager; and Senior Instructor for Combat Systems Courses.

In 2014, LCDR Davidson was endorsed as a 'charge qualified' Surface Combatant Engineer Officer in HMAS DARWIN (FFG 04) where he was the senior engineer and head of the Weapons Electrical Engineering Department.

Currently LCDR Davidson is serving in a personnel exchange posting with the US Navy in the Naval Surface Warfare Center Dahlgren Division - Dam Neck Activity (NSWCDD DNA), where he has gained experience as a Strike Force Interoperability Officer, and is now using cognitive computing techniques to develop a tool for Coalition Naval Force Interoperability Analysis.

Track Keynote Biographies

Visualization and Gamification Keynote



DR. SHANE GALLAGHER

Researcher

Institute for Defense Analyses

Dr. P. Shane Gallagher is a researcher for the Institute for Defense Analyses in the areas of cognition and gaming, cyber operations learning models and assessment, learning technology standards, and research methods. He is also currently supporting the Advanced Distributed Learning (ADL) Initiative as a learning scientist and education specialist

He has presented papers on gaming, cyber operations education and innovative research methods at various national and international meetings and conferences including the National Institute for Cyber Education (NICE) annual conferences, the American Educational Research Association annual meetings, the 6th Annual European Conference on Game-Based Learning, and the annual meeting of the Center for

Technology and National Security Policy Institute. Dr. Gallagher is the lead researcher and PI for assessing the development of the ADL Total Learning Architecture and generally provides research oversight and direction for learning science and methodological concerns. He received his Ph.D. in Instructional Technology from George Mason University and MA in Educational Technology from the University of New Mexico.

Training and Education Keynote



JEFFREY A. RAVER **NTSA** Corporate Member

Vice President and Training Sub Segment Manager

Science Applications International Corporation (SAIC)

Jeffrey A. Raver is the Vice President and Training Sub-Segment Manager for the Science Applications International Corporation (SAIC). In this role, Mr. Raver manages a team of over 1600 instructors, training analysts, Instructional Systems

Designers and training content developers, creating and delivering training worldwide to every branch of the military, numerous federal and state agencies, and a variety of commercial customers. Mr. Raver has over 29 years of experience in the design, development and delivery of innovative and immersive training solutions for complex

problems, including the application of technology and data analytics to increase training efficiency and effectiveness. He holds an undergraduate degree in psychology from The Catholic University of America and a Master of Science degree in systems engineering from George Washington University.

Science and Engineering Keynote



DR. ROBERT MOSES

Aerospace Technologist

NASA Langley Research Center

Bob Moses joined NASA in 1989, contributing to flight test teams developing hardware for shuttle missions. In 1991, he participated in the launch of his first hardware mission onboard Atlantis, STS-37. Up to 2003, participated in a multi-national aeronautics program to solve and control unsteady aerodynamics on twin-tail fighters. He also created a new entry descent and landing technology called Regenerative Aerobraking to recapture some of the energy

lost during aerobraking at Mars. In 2004, he joined the Exploration Engineering Branch at LaRC and won several proposal opportunities under the Exploration Mission Directorate. In 2014, he joined a small Blue Sky study team to derive a strategy for using In-Situ Resource Utilization and a reusable lander to enable crewed missions to Mars by the 2030s.

He mentors students at Florida Institute Technology while also working with the Buzz Aldrin Space Institute (BASI) to explore cycling pathways for Earth-Moon and Earth-Mars that sustain human presence.

His current research focuses on: autonomous site preparations to achieve safety and sustainability prior to astronauts leaving Earth for Mars; ISRU, reusable lander-ascent vehicles, reusable interplanetary transportation including Aldrin Cyclers and other semi-cycler options, in-space assembly to reduce campaign costs for affording safety; and crew health issues and mitigation strategies that affect vehicle designs and campaign architectures; and crew health proposition for fast transits to enable humans to Mars.

Challenge Competition Judges

Wednesday, April 25 | 1300 – 1300 | Norfolk Ballroom I-III



CARL STEFFEN

Program Management Execution Officer
National Geospatial-Intelligence Agency (NGA)

Mr. Carl Steffen works at the National Geospatial-Intelligence Agency (NGA)

where he has served in a variety of career fields since 2006. Within the agency, he has worked in the Human Development Directorate, the Financial Management Directorate, the Analysis Directorate, and currently serves as a Program Management

Execution Officer within the CIO and Information Technology Services Directorate. Prior to his current assignment with NGA, he worked for the Accenture National Security Services directly supporting NGA's external hiring efforts within its Recruitment Center.

Mr. Steffen's 30+ year Department of Defense/Intelligence Community career began in 1983 when he enlisted in the United

States Navy as a Cryptologic Technician (Administrative). Throughout his 20-year military career, he supported the Intelligence Community in assignments ranging from the Asian continent through multiple assignments within the US and the Washington, D.C. metro area where he served in the Pentagon.



DR. JIM LEATHRUM **NTSA** Corporate Member

Associate Professor, Department of Modeling, Simulation and Visualization Engineering
Old Dominion University

James (Jim) Leathrum, JR., Ph.D., is an Associate Professor of the Department

of Modeling, Simulation and Visualization Engineering at Old Dominion University. He holds a Ph.D. in electrical engineering from Duke University. His research interests

include discrete-event simulation, distributed simulation, simulation architectures, and their applications. His e-mail address is jleathru@gmail.com.



JOHN RICE

Retired

John Rice is an eclectic behavioral scientist who is currently "retired" from over 40 years of

modeling and simulation related employment in education, defense and healthcare. Most recent employment (2016-17) was part-time as a Senior Advisor for M&S to the Dept of Homeland Security Office of Science and Technology. He remains extremely active

in numerous voluntary leadership and supporting roles in many M&S organizations and conferences where his primary interest in the application of M&S to healthcare and medical research and in human factors and systems engineering. He is a Member Emeritus in the DOD HFE Technical Advisory Group where he lead the formation of, and chaired the Human M&S SubGroup, is currently a member of the Whitehouse Office of Science and Technology Pandemic

Prediction and Forecasting Working Group, and maintains an active network with senior M&S stakeholders in multiple federal departments and agencies including DOD, DHS, NASA, VHA, NIH, FDA, DOT, USDOA & FAA. He holds PhDs (ABD) in both Special Education Research, and in Instructional Systems Development from Indiana University, Bloomington.

STEM Event Organizer Biographies



LISA BAIR **NTSA** Corporate Member

Solutions Architect

Science Applications International Corporation (SAIC)

Lisa Jean Bair is in the second year of her appointment as an SAIC Fellow and is a Solutions Architect for SAIC's Advanced Analytics, Simulation, and Training Service Line and. She has over 20 years of experience in operations analysis supporting small businesses, the financial industry, and the DOD and over 20 publications, with an award of best paper in the 2013 I/ITSEC Simulation track with a conference best paper nomination. Throughout her career, she has led research and development, analysis and support tasks completed by project teams consisting from individual contributors to small teams containing a wide range of expertise levels, from entry-level research

assistant to PhD qualified subject matter experts. She has engaged in all aspects of company management, including technical and programmatic management, customer engagement, and business development.

Ms. Bair leads the SAIC Integrated Training Edge™ effort and develops solutions and proposals for a variety of modeling and simulation applications. Her areas of expertise include M&S validation, simulation supported analysis, Agent Based Simulation, Multiple Objective Decision Analysis, Multi-Attribute Utility Theory, and analysis. Her experience includes concept development and experimentation; analyses of alternatives; complex decision problems; M&S planning use; test and evaluation; and validation. Her original research established

a comprehensive multi-agent system taxonomy and foundational principals and a framework for M&S validation. Her current research interests lie in multi-modal multi-media training and education and in the development and mentoring of quality modeling and simulation professionals. Ms. Bair earned an MS in Operations Research from The College of William and Mary and a BS in Applied Mathematics from ODU.

Ms. Bair is active in the modeling, simulation, and training communities. She serves on the Emerging Concepts and Innovative Technologies sub-committee for the 2017 Interservice/Industry Training, Simulation and Education Conference (I/ITSEC)—the world's largest modeling, simulation, and training conference.

Communities of Interest



NATIONAL MODELING & SIMULATION COALITION

The National Modeling & Simulation Coalition (NMSC) is an unincorporated, voluntary, nonprofit coalition sponsored by and composed of government, industrial and educational organizations and professional societies having a common interest in promoting and leveraging M&S to better the human condition and to strengthen the National well-being. The mission of the NMSC is to create a unified national community of individuals and organizations around the M&S discipline and professional practice and to be the principal advocate for M&S.

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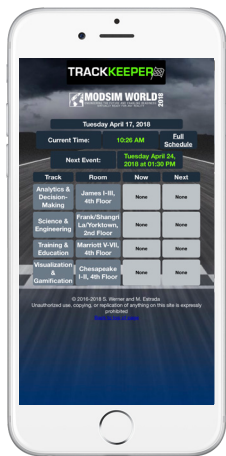
CHRISTOPHER HEARD **NTSA** Corporate Member

Modeling and Simulation Software Engineer and Analyst
Newport News Shipbuilding

Christopher Heard is a Modeling and Simulation Software Engineer and Analyst at Newport News Shipbuilding. He has served as a developer for a set of models to

support the operations of several facilities at a Department of Energy site and aided in the development and analysis of a sortie generation rate model for the new Ford Class Carrier. In his current role Mr. Heard is responsible for research and development

within the Integrated Digital Shipbuilding arm of the shipyard; he helps to prototype and pilot potential innovative solutions for the digital transformation of the shipyard.



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NTSA Schedule of Events

MODSIM WORLD 2018

April 24–26, 2018
Norfolk, VA

2018 SIMULATION & TRAINING COMMUNITY FORUM

May 8, 2018
Dayton, OH

ITEC 2018

May 15–17, 2018
Stuttgart, Germany

TRAINING & SIMULATION INDUSTRY SYMPOSIUM (TSIS) 2018

June 6–7, 2018
Orlando, FL

CAPITOL HILL M&S EXPO

July 12, 2018
Washington, DC

IFEST 2018

August 27–29, 2018
Alexandria, VA

2018 FALL SIMULATION INNOVATION WORKSHOP (SIW)

September 10–14, 2018
Orlando, FL
(Sponsored by SISO / Supported by NTSA)

LEADERSHIP SUMMIT

September 17, 2018
Norfolk, VA (Tentative)

NATIONAL MODELING & SIMULATION COALITION (NM&SC) NATIONAL MEETING

September 24–26, 2018
Omaha, NE

INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE (I/ITSEC) 2018

November 26–30, 2018
Orlando, FL

TrainingSystems.org/events



National Training and Simulation Association

Discover the many benefits of NTSA Corporate Membership

Corporate Members of NTSA receive early space selection and discounts on exhibit space at I/ITSEC. Whether you are a large or small company, there is an NTSA membership option for you.

Corporate Membership Options

Sustaining

- \$5,000 in annual dues
- First choice of booth space (during I/ITSEC)
- 10% discount on booth space for I/ITSEC (Maximum discount = \$5,000)
- Seat on Executive Committee and Invitation to M&S Awards Dinner
- Additional exposure at I/ITSEC

Regular

- \$1,250 to \$2,500 in dues (depending on # of employees involved in training and/or M&S)
- Second round of booth space selection (in early to mid-February)
- 5% discount on booth space. (Maximum discount = dues amount paid)

Associate

- \$500 in dues; designed for smaller companies
- Third round of booth space selection (in late February)
- No discount on booth space

All corporate members of NTSA receive these core benefits:

- Reduced registration fees for all employees for all NTSA & NDIA events
- Member listing with hyperlink on the NTSA website
- NTSA's Monthly E-Newsletter
- National Defense, NDIA's award-winning magazine

Discover the many benefits of membership in NTSA, the leading association serving the Training and Simulation industry.

Visit www.trainingsystems.org/membership, or contact Patrick Rowe at prowe@ndia.org.



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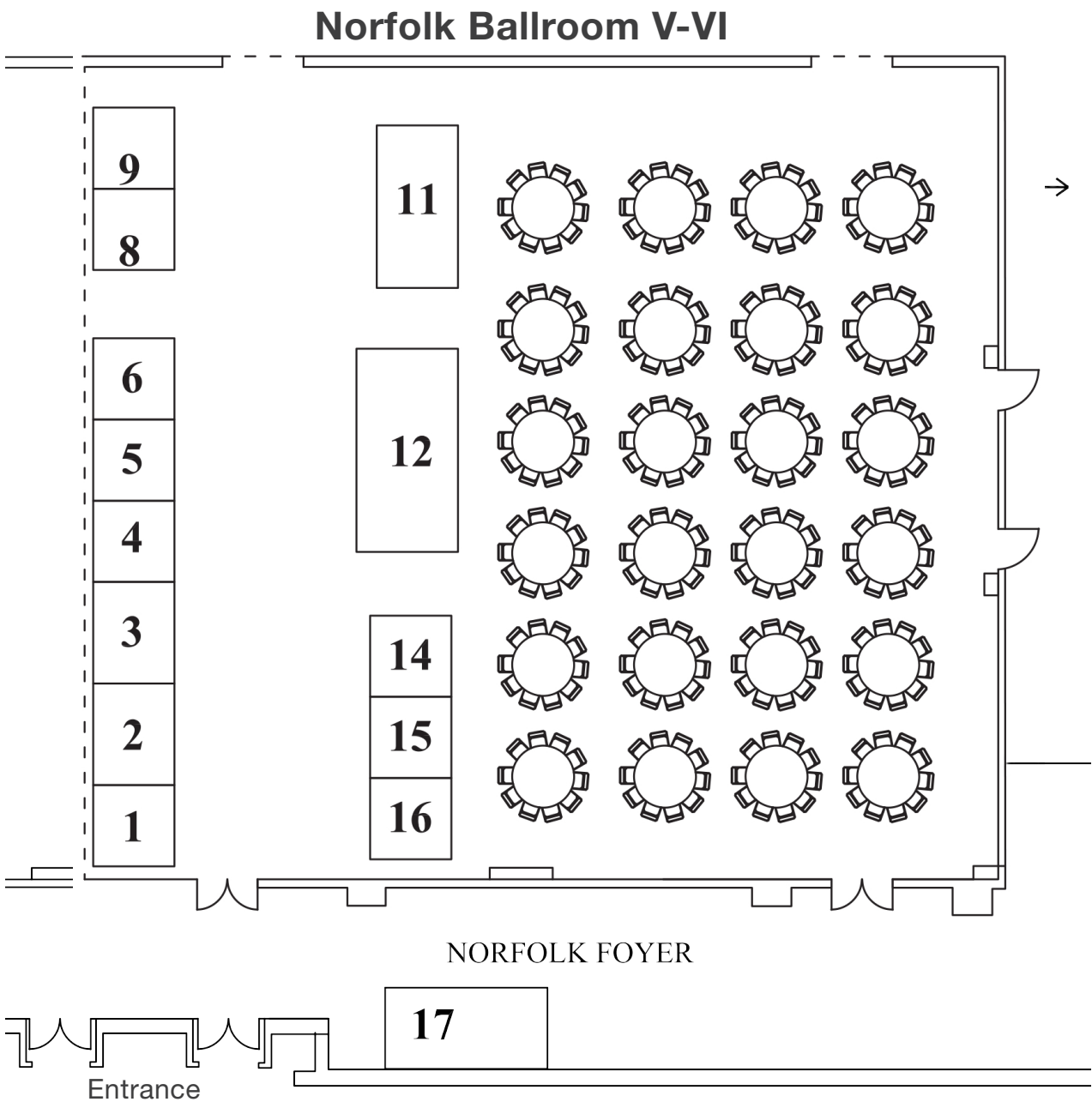


INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE

LAUNCHING INNOVATION IN LEARNING: READY, SET, DISRUPT!

Why I/ITSEC?

- ▶ 16,200 attendees
- ▶ 485 exhibitors
- ▶ 186,000 sq ft exhibit hall
- ▶ 1,800 international attendees, from 50 countries



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GEORGIA TECH RESEARCH INSTITUTE (GTRI)

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NTSA Corporate Member

Mr. Ron Smith
Georgia Tech Research Institute
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ron.smith@gtri.gatech.edu

Georgia Tech Research Institute (GTRI) develops advanced technological solutions and large-scale system prototypes to address the most difficult problems in national security, economic development and overall human betterment. GTRI is uniquely positioned within the Georgia Institute of Technology (Georgia Tech), a top research university. Many of our experts are recognized internationally in a vast array of research domains. GTRI's core research areas include complex and agile systems engineering, sensor design and integration, modeling and simulation, information management and cyber security, and defense technology development. GTRI has over 2000 employees and conducts more than \$360 million in sponsored research annually.

INNOVATION CORNER

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Experience how innovative virtual reality (VR) and mixed reality (MR) applications are being used to deliver transformative experiences in training, education and healthcare. A rotating selection of applications will expose attendees to the VR and MR technologies and teams pushing these media into a variety of verticals. Participants in the corner include:

Bohemia Simulations

Bohemia Interactive Simulations (BISim) is a global developer of advanced military training and simulation software. Our mission is to harness the explosive potential of technology to revolutionize training and simulation. BISim leverages a large, experienced in-house engineering team and bleeding edge innovations from the commercial sector including gaming, AI, terrain mapping and cloud computing to develop high-fidelity, cost-effective training and simulation software products and components primarily for defense applications.

Engineering & Computer Simulations (ECS)

With twenty years of experience in M&S game-based training, ECS continues to innovate with the latest technology to create immersive training solutions ranging from military to medical, and from classrooms to corporations.

JANUS Research Group, Inc.

JANUS Research Group, INC designs and builds highly detailed virtual environments and visualization tools for customers Video, Interactive Multimedia Instruction levels I-IV, Serious Game, or Modeling and Simulation needs.

Plas.md

Plas.md is dedicated to improving human performance and resilience through the integration of real-time biometric data with advanced virtual and mixed reality simulations. Visit us at Booth 2

NEWPORT NEWS SHIPBUILDING 12

NTSA Corporate Member

Marco Estrada
Technical Product Management Group
4101 Washington Avenue
Newport News, VA 23607
(757) 534-4796
marco.t.estrada@hii-nns.com

Huntington Ingalls Industries is America's largest military shipbuilding company and a provider of professional services to partners in government and industry. For more than a century, HII's Newport News and Ingalls shipbuilding divisions in Virginia and Mississippi have built more ships in more ship classes than any other U.S. naval shipbuilder. HII's Technical Solutions division provides a wide range of professional services through its Fleet Support, Integrated Missions Solutions, Nuclear & Environmental, and Oil & Gas groups. Headquartered in Newport News, Virginia, HII employs nearly 38,000 people operating both domestically and internationally.

Newport News Shipbuilding is the sole designer, builder and refueler of U.S. Navy aircraft carriers and one of two providers of U.S. Navy submarines. With approximately \$4 billion in revenues and more than 20,000 employees, we are the largest industrial employer in Virginia and the largest shipbuilding company in the United States.

We build the most advanced ships in the world using our expertise in nuclear propulsion, naval design and manufacturing. We are currently building the new *Ford*-class aircraft carriers and *Virginia*-class fast-attack submarines, and performing Refueling and Complex Overhaul (RCOH) on *Nimitz*-class aircraft carriers. We provide fleet services for our ships worldwide.

Founded as the Chesapeake Dry Dock and Construction Co. in 1886, Newport News Shipbuilding has built more than 800 ships, including both naval and commercial ships. Located in Newport News, Va., our facilities span more than 550 acres, strategically positioned in one of the great harbors of the East Coast.

JANUS RESEARCH GROUP, INC. 8

Sarah Rodier
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Evans, GA 30809
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shawn.rodier@janusresearch.com
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JANUS Research Group, INC designs and builds highly detailed virtual environments and visualization tools for customers Video, Interactive Multimedia Instruction levels I-IV, Serious Game, or Modeling and Simulation needs.

Exhibitors and Sponsors

PITCH TECHNOLOGIES

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NTSA Corporate Member

Damon Curry
37 North Orange Avenue, Suite 917
Orlando, FL 32801
(407) 745-0980
damon.curry@pitchtechnologies.com

Pitch Technologies is the leading provider of products and services based on simulation standards to make Live, Virtual, Constructive and Gaming systems work together over local and wide area networks. At ModSim World, Pitch will present its wide range of DIS & HLA products for distributed simulation and training, including: (1) Pitch Talk for voice and text communications, (2) Pitch Media Streamer to stream video and audio in real time over HLA networks, and (3) "Space FOM" for simulation of entities and systems in space.

PLAS.MD

2

Vance Saunders
1 Market Street, Apt 647
Camden, NJ 08102
vsouder@pls.md

Plas.md is dedicated to improving human performance and resilience through the integration of real-time biometric data with advanced virtual and mixed reality simulations.

Plas.md's core product offering is Bionautica Trails and the Bionautica Biometrics platform. Bionautica Trails transforms treadmill-based therapies by immersing patients in a living virtual world driven by real-time biometric data including heart rate, skin temperature and galvanic skin response. With the goal of increasing human performance through improved motivation, cognition and resilience, Bionautica Trails integrates game-based challenges, light narrative and compelling visuals to pull users into the experience.

Bionautica Trails is built upon Plas.md's Whister Park Platform and Bionautica Biometrics. Whister Park is a Virtual National Park, consisting of over 250 thousand acres designed by Plas.md to provide a consistent visual and narrative space for the development of immersive therapeutic applications. Bionautica Biometrics accelerates the development of biometrically-aware immersive applications to aid in a variety of domains from fitness to training and education.

PRAGMATICS, INC

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NTSA Corporate Member

Alex Hoey
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1761 Business Center Drive
Reston, VA 20190
(703) 890-8568
hoeya@pragmatics.com

Pragmatics' services include agile software engineering, data analytics, machine learning, cyber security, audio visual and learning technologies, and IT infrastructure management. Our Infrastructure Solutions Group has delivered thousands of A/V, Networking, and Computing solutions to the US Army, Navy, Air Force, and several other Civilian Agencies. We have provided A/V solutions and support to conference rooms, instructional classrooms, executive offices, theaters, auditoriums, mobile carts, and special access facilities in more than 35 CONUS sites for the Army and Navy. For the Army, we have designed, installed, and supported IT and A/V systems in 4,000 classrooms, auditoriums, conference rooms, and Mission Command Arts and Sciences Program (MCASP) rooms for TRADOC/Joint/Reserve Schools at 31 posts. Since January 2011, our team has provided more AV rooms to the US Government than any other vendor. Our team has more than 120 direct dealer relationships that allow us to reduce costs with the largest manufacturers in the market.

ODU MSVE

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NTSA Corporate Member

Frederic (Rick) D. McKenzie, Ph.D.
Professor and Chair
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Norfolk, VA 23529
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rdmckenz@odu.edu
www.odu.edu/msve

Welcome to the Department of Modeling, Simulation and Visualization Engineering. We are the first in the world to offer a Bachelor of Science (B.S.) in M&S Engineering (M&SE). Learn to utilize basic science principles and concepts to create and analyze models of systems in order to improve, optimize, or train with them. M&SE teaches you how to capture your idea and test it out under different real-world conditions using graphs, animations, or virtual reality to view its behavior. We teach you how these what-if techniques can be applied within a variety of jobs in areas such as medical & healthcare, human & autonomous behaviors, cyber security, military defense, transportation, and serious gaming.

ODU VMASC

NTSA Corporate Member

Eric Weisel, Ph.D.
Interim Executive Director
Old Dominion University
Virginia Modeling, Analysis & Simulation Center
1030 University Blvd.
Suffolk, VA 23435
(757) 686-6232 office

The Virginia Modeling, Analysis and Simulation Center (VMASC) at Old Dominion University (ODU) celebrated its twentieth year in 2017. The center continues its exploration of new ways to employ modeling and simulation to solve real world problems. Everything we do is grounded in the utilitarian principle of improving the human condition and mankind's understanding of the world. We improve the human condition and mankind's understanding of the world by challenging conventional wisdom through innovation and transdisciplinary research and development. We build models, simulations, and visualizations to understand the future and its uncertainties. We formulate complex problems, design experiments, analyze data, and interpret results. We conduct scholarly research and publish results, adding to the body of knowledge. We teach and mentor students who become part of the 21st century workforce. Through modeling, analysis and simulation, we help mankind.

QUANTIFIED DESIGN SOLUTIONS/ NEWTON DESIGN, LLC

David Jones
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Orlando, FL 32826
(407) 362-9484
David.jones@quantifieddesign.com

Newton Design is a Native American-owned small business, manufacturing high quality simulation and training equipment. For over 20 years, the Oklahoma-based team designs, manufactures, installs, and supports high fidelity training platforms for commercial airlines, US military, federal and international law enforcement, the FAA, and commercial organizations. Newton Design works with customers to define training goals and develop physical training devices that provide consistent and reliable training that meets the needs of all users in the training process. Whether you are looking for a manufacturing or prototyping partner, turn-key training solutions, or support in retrofitting and upgrading current training platforms, Newton Design is the right partner for you.

Quantified Design Solutions is Newton Design's advanced Research and Development partner. The Orlando based team develops a full range of training platforms, ranging from computer-based training, virtual and augmented reality, mobile training, and integrated mixed medium training suites. The team at Quantified Design has over 15 years of experience conducting training research and developing training platforms that provide measurable learning improvements. Quantified Design provides solutions for commercial customers, US military, medical training groups, and airlines. Come by and see some of our Virtual Reality training platforms and discuss how Quantified Design can support your training goals.

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SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC)

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Robert Kleinhample
4525 South Blvd, Suite 100
Virginia Beach, VA 23452
(757) 325-0014
robert.c.kleinhample@saic.com

SAIC® is a premier technology integrator providing full life cycle services and solutions in the technical, engineering, intelligence, and enterprise information technology markets. SAIC is Redefining Ingenuity through its deep customer and domain knowledge to enable the delivery of systems engineering and integration offerings for large, complex projects. SAIC's approximately 15,000 employees are driven by integrity and mission focus to serve customers in the U.S. federal government. Headquartered in Reston, Virginia, SAIC has annual revenues of approximately \$4.5 billion. For more information, visit saic.com.

V-ARMED

NTSA Corporate Member

Christina Corbat
1001 Avenue of The Americas
Floor 24
New York, NY 10018-5460
(212) 595-0400

V-Armed launched in 2017 and is based in New York City. Our mission is to support defense and law enforcement communities with virtual reality simulations that fulfill their nascent training requirements: portable, COTS, plug-and-play solutions that include immersive scenarios developed on gaming engines compatible with existing simulation software and capable of being tailored to suit individual and multiplayer trainings. After Action Reviews and the integration of countless tools and haptics are all tested in our 7,500 square foot UX / motion capture studio, which we share with sister company Silver Spoon Animation. As part of the Animated Storyboards ecosystem, we have an impressive track record for low turnover and promoting talented individuals from within. Not only is our content the most realistic you'll find in the public sector today, our production process is the most professional. Our experienced production teams are skilled at working with subject matter experts to deliver appropriate content, and they are also skilled at working through real-time edit sessions with clients. See videos here of an ASB portfolio, a Chester the Cheetah live, animation experience (created by sister company We Fly Coach) and a first-person shooter serious gaming experience (demonstrated at I/ITSEC):

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Exhibitors and Sponsors

VMSP

Matt Spruill
Trideum Corporation
(757) 617-4219 Office
mspruill@trideum.com

The Virginia Modeling and Simulation Partnership (VMSP) is the Commonwealth of Virginia's premier organization for promoting government, industry and academia applications of modeling and simulation and related technologies. VMSP is a public private partnership and achieves its mission through a governing board consisting of the executive board and directors, cross cutting committees, and general membership drawing from Commonwealth of Virginia's regions, sectors, community economic development offices, academia and government, as well as other likeminded individuals with a common interest in modeling and simulation.

VT MAK

NTSA Corporate Member

Rob Hamilton
150 Cambridge Park Dr
Cambridge, MA 02140
rhamilton@mak.com

VT MAK is a global leader in modeling and simulation software that links, simulates and visualizes virtual worlds in networked synthetic environments. Continuing a tradition that stretches back almost three decades, our tools are used by the world's top system integrators for training, experimentation, mission rehearsal, research and development, and virtual prototyping. We empower our customers to build on top of our open standards-based COTS platforms, and assist those customers in creating winning systems.

VSGI

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Stephanie Kane
10900 University Blvd. MSN 1J2
Bull Run Hall 147A
George Mason University Science and Tech Campus
Manassas, VA 20109
Ph: 703-993-7033

The business development, community outreach, and applied R&D arm of the Computer Game Design Program at Mason; the Virginia Serious Game Institute (VSGI) was founded in March of 2014 on the Mason Science and Technology Campus in Prince William County. VSGI offers schools, businesses and universities hands-on training, certification, research and development assistance, emerging game company incubation, rapid prototype development, as well as links into leading edge commercialization outputs and technologies that will provide market advantage in the areas of simulation, modeling, and game design for the Commonwealth of Virginia.

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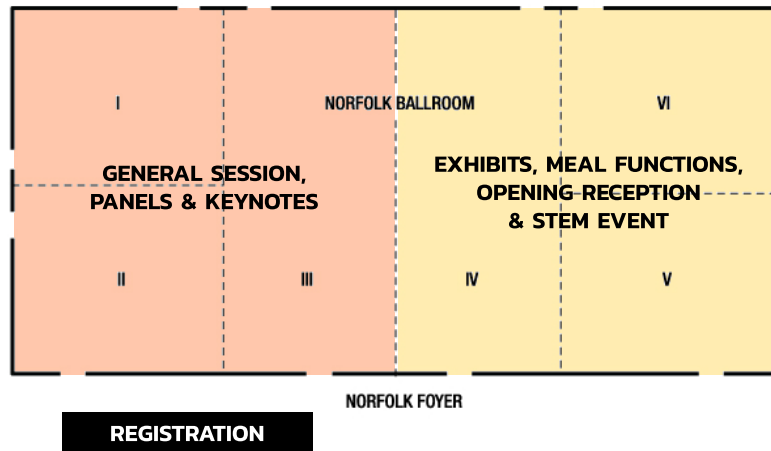
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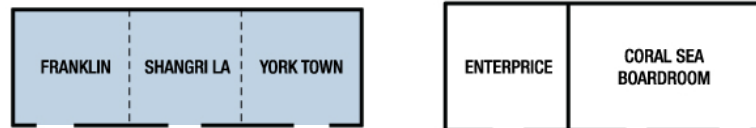
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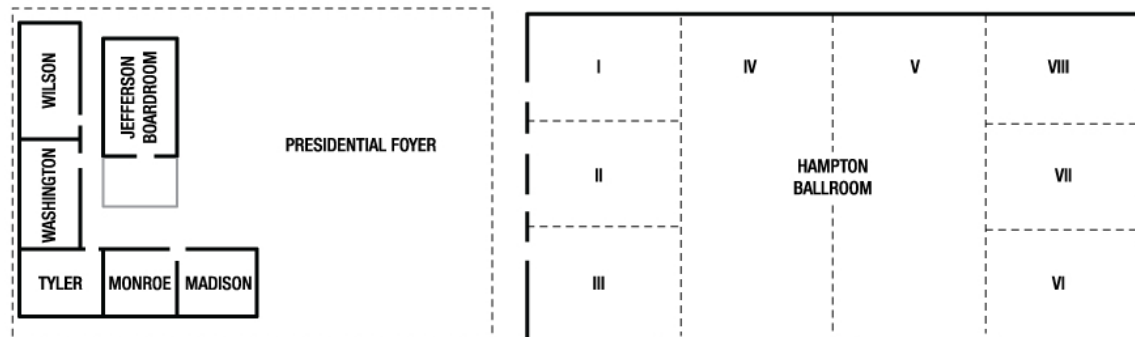


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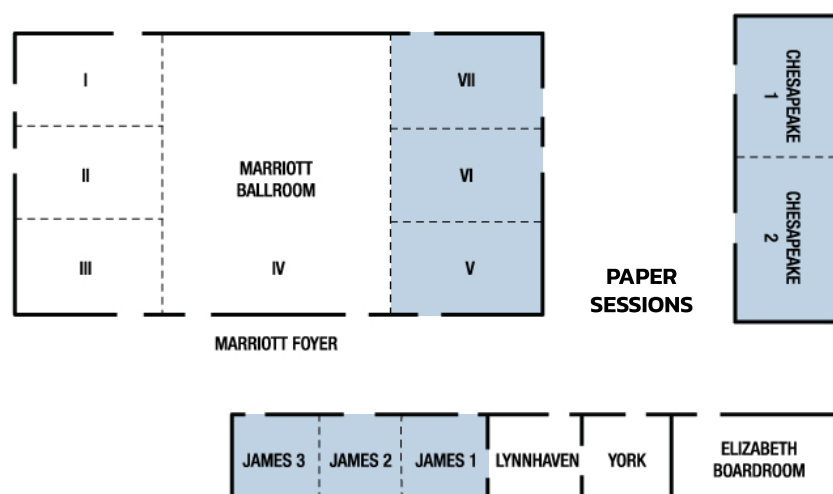


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PAPER SESSIONS



FOURTH FLOOR





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VIRTUALLY READY FOR ANY REALITY

