

New York Scientific Data Summit 2025

Powering the Future of Science
with Artificial Intelligence

September 11-12, 2025
SUNY Global Center
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VIVAN AMIN

MICROSOFT RESEARCH

Vivan Amin is Director of AI Research Incubations at Microsoft Research, leading initiatives that bridge advanced artificial intelligence, robotics, and intelligent systems. With more than 17 years of experience at Microsoft AI, Lockheed Martin, and Boeing, Mr. Amin has delivered cutting-edge autonomous capabilities across aerospace, defense, and commercial markets. His current focus is on Embodied AI, enabling AI systems to perceive, reason, and act both as digital agents in simulations and as physical robots in the real world. He drives research-to-market strategies, ecosystem partnerships, and product incubation at global scale, collaborating across the ecosystem. An advocate for responsible and secure AI, Mr. Amin regularly speaks on the technical and societal impacts of AI for the physical world. He is passionate about advancing intelligent systems that blend human values with transformative machine capabilities.

SPEAKERS AND PANELISTS



WAHID BHIMJI

NATIONAL ENERGY RESEARCH SCIENTIFIC COMPUTING CENTER

Dr. Wahid Bhimji is the Division Deputy for AI and Science and Group Lead for the Data and AI Services Group at the National Energy Research Scientific Computing Center, or NERSC, Berkeley Lab. He has led several machine learning projects across different science disciplines and oversees all aspects of artificial intelligence for NERSC, as well as being involved in other initiatives more broadly within Berkeley Lab and the Department of Energy.

Dr. Bhimji has worked for many years in scientific computing and data analysis in academia and for the U.K. government. He also has a background and Ph.D. in high energy particle physics.



RUMI CHUNARA

NEW YORK UNIVERSITY SCHOOL OF
GLOBAL PUBLIC HEALTH

Dr. Rumi Chunara's research develops computational and statistical approaches to acquire, integrate, and use data to improve population health. At New York University, she directs the Center for Health Data Science, advancing methods for public and population health while building knowledge ecosystems that connect disciplines and contexts. Previously, Dr. Chunara was a Postdoctoral Fellow and Instructor at HealthMap and the Children's Hospital Informatics Program at Harvard Medical School. She earned her Ph.D. from the Harvard-Massachusetts Institute of Technology (MIT) Division of Health Sciences and Technology, her SM from MIT, and her BSc from the California Institute of Technology. Her honors include the National Science Foundation CAREER Award, Facebook Research Award, Gates Foundation Grand Challenges Award, *MIT Technology Review* "35 Innovators Under 35," and a Max Planck Sabbatical Award.

SPEAKERS AND PANELISTS



MATEI CIOCARLIE

COLUMBIA UNIVERSITY

Dr. Matei Ciocarlie is an Associate Professor in the Mechanical Engineering Department at Columbia University with affiliated appointments in Computer Science and the Data Science Institute. His work focuses on robot motor control, mechanism, and sensor design, planning, and learning – all aiming to demonstrate complex motor skills, such as dexterous manipulation. Dr. Ciocarlie completed his Ph.D. at Columbia University in New York. Before joining the faculty at Columbia, he was a Research Scientist then Group Manager at Willow Garage, Inc., and a Senior Research Scientist at Google, Inc. In those positions, Dr. Ciocarlie contributed to the development of the open-source Robot Operating System (ROS) and led research projects in areas such as hand design, manipulation under uncertainty, and assistive robotics. Dr. Ciocarlie has earned Early Career Awards from the Institute of Electrical and Electronics Engineers Robotics and Automation Society, Office of Naval Research, National Science Foundation, and Sloan Foundation. In addition, the tactile robotic hand developed in his lab was named one of “The Best Inventions of 2023” by *Time* magazine.



HAL FINKEL

OFFICE OF ADVANCED SCIENTIFIC COMPUTING RESEARCH

Dr. Hal Finkel serves as the Division Director for the Computational Science Research and Partnerships (CSRP) Division within the Office of Advanced Scientific Computing Research (ASCR). Prior to joining ASCR, Dr. Finkel spent nearly a decade at Argonne National Laboratory as a physicist and computational scientist with the Argonne Leadership Computing Facility (ALCF). He built and led a team at Argonne focused on advancing the computer science of compiler technology and programming languages. The team contributed significantly to the efforts of the Exascale Computing Project (ECP) in addition to exploring artificial intelligence, quantum computing, spatial architectures, and other forward-looking technologies. He holds a Ph.D. in Physics from Yale University, where he focused on early-universe cosmology.

SPEAKERS AND PANELISTS



STEVE GOLEY

AMAZON WEB SERVICES

Steve Goley is a Senior Applied Scientist within the Generative AI Innovation Center at Amazon Web Services (AWS). Mr. Goley has been with AWS for four years, helping federal agencies and public sector companies utilize machine learning and artificial intelligence. Until the GenAI revolution, he focused primarily on signal and image processing, as well as computer vision and tracking, including alternative modalities such as synthetic aperture radar. Recently, Mr. Goley has been using GenAI to accelerate businesses with a focus on agentic systems.



TARIK HAMMADOU

NVIDIA

Tarik Hammadou is a Director of Developer Relations at NVIDIA, specializing in artificial intelligence (AI) for Retail and Supply Chain. With more than 20 years of experience in AI, computer vision, and deep learning, Mr. Hammadou has a proven track record of driving innovation in technology across diverse industries. At NVIDIA, he leads efforts to enable the adoption of AI, focusing on intelligent systems for retail and supply chain operations. His expertise spans robotic automation; agentic AI; and the application of NVIDIA's cutting-edge platforms, such as Omniverse, Metropolis, and cuOpt, to enhance operational efficiency and empower businesses with real-time, AI-driven insights and decision-making.

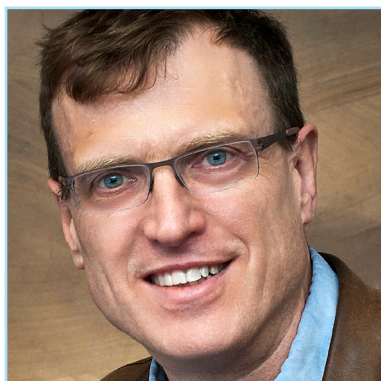
SPEAKERS AND PANELISTS



JIEQUN HAN

FLATIRON INSTITUTE

Dr. Jiequn Han is a Research Scientist at the Center for Computational Mathematics, Flatiron Institute, Simons Foundation. He conducts research involving machine learning for science, drawing broadly from the methodologies and challenges of various scientific disciplines. Dr. Han's work also focuses on solving high-dimensional problems in scientific computing, primarily those related to partial differential equations and generative modeling. He holds a Ph.D. in Applied Mathematics from Princeton University. His research has been recognized with the Society for Industrial and Applied Mathematics Computational Science and Engineering (CSE) Early Career Prize (awarded biennially to one scholar).



ROBERT HARRISON

EMPIRE AI

Professor Robert Harrison is a distinguished expert in high-performance computing and theoretical chemistry and serves as the Endowed Chair and Director of the Institute for Advanced Computational Science at Stony Brook University. He also is currently serving as the Interim Executive Director of the New York State Empire AI Initiative. Dr. Harrison held a concurrent joint appointment with Brookhaven National Laboratory as Chief Scientist for the Computational Science Initiative. Dr. Harrison came to Stony Brook from the University of Tennessee and Oak Ridge National Laboratory, where he was Professor of Chemistry and Corporate Fellow, and was also Director of the Joint Institute for Computational Sciences that is home to the National Science Foundation supercomputer center, the National Institute for Computational Science. He has an active career with more than 200 publications and extensive service on national and international advisory committees. In 2002, he received the Institute of Electrical and Electronics Engineers Computer Society Sidney Fernback Award and has received two R&D 100 awards for the development of NWChem (1999) and MADNESS (2011).

SPEAKERS AND PANELISTS



JOHN HILL

BROOKHAVEN NATIONAL LABORATORY

Dr. John Hill serves as the Deputy Director for Science and Technology, supporting Lab Director, JoAnne Hewett, in the science and technology aspects of Brookhaven National Laboratory. His portfolio includes Research Security, Computing and Data Sciences, Research Partnership and Technology Transfer Office, and the National Security Program Office. He also directs the Laboratory Directed Research and Development (LDRD) program.

Dr. Hill previously served as Director of the National Synchrotron Light Source II (NSLS-II) and Deputy Associate Lab Director for Energy and Photon Sciences. Prior to that, he was group leader of the X-ray scattering group in Brookhaven's Condensed Matter Physics and Materials Science Department and Director of the Experimental Facilities Division in the NSLS-II construction project. He is recognized as a world leader in applying X-ray scattering techniques to the study of condensed matter systems. In particular, he has focused on using resonant elastic and inelastic scattering to study electron dynamics in a range of materials.



SHANTENU JHA

RUTGERS UNIVERSITY |
PRINCETON PLASMA PHYSICS LABORATORY

Dr. Shantenu Jha is a Professor of Computer Engineering at Rutgers University-New Brunswick and Head of Computational Sciences at the U.S. Department of Energy's Princeton Plasma Physics Laboratory while also holding a concurrent appointment as a Research Scholar at Princeton University. His research focuses on artificial intelligence for science at the intersection of high-performance distributed computing, computational science, and data science. He is a recipient of the National Science Foundation CAREER Award (2013), Association for Computing Machinery Gordon Bell Special Prize (2020), and numerous other best papers and honors, including the Institute of Electrical and Electronics Engineers SCALE 2018 Award.

SPEAKERS AND PANELISTS



ANUJ J. KAPADIA

OAK RIDGE NATIONAL LABORATORY

Dr. Anuj J. Kapadia is a Distinguished Research Scientist and Section Head for Advanced Computing in Health Sciences at Oak Ridge National Laboratory and an Adjunct Professor of Radiology, Physics, and Medical Physics at Duke University. His work spans artificial intelligence, machine learning, analytics, and multiscale modeling with applications in cancer research and broader healthcare domains.

Dr. Kapadia brings more than two decades of experience in Monte Carlo simulation, neutron and X-ray imaging, and data analytics for both medical and national security applications. His research has been supported by multiple federal agencies, including the Department of Energy, Department of Defense, Department of Homeland Security, and National Institutes of Health, and he is recognized for his leadership and innovation through numerous teaching, mentorship, and service awards.

He has mentored more than 30 students and postdoctoral fellows and authored over 150 peer-reviewed publications. Dr. Kapadia is a senior member of the Institute of Electrical and Electronics Engineers and SPIE (international society for optics and photonics), and a Fellow of the American Association of Physicists in Medicine. His work continues to shape the future of precision health through advanced computing and interdisciplinary collaboration.



GENGHIS KHAN

GE AEROSPACE RESEARCH

Genghis Khan currently is the Chief Engineer for Sustainable Systems at GE Aerospace Research in Niskayuna, N.Y., where he has been since 1991. His core competencies are in continuum mechanics and probabilistic machine learning with applied expertise in the many disciplines that emanate from those areas. Mr. Khan applies and guides teams to ensure the sustained life cycle of GE Aerospace's aircraft engines and systems and the sustainable future of flight. His current focus ties together the system-of-systems interplay between advanced engine architectures for optimal overall emissions efficiency, usage of alternative and synthetic fuels, atmospheric science, and generative artificial intelligence for the design of these next-generation engines. Mr. Khan holds 12 patents and has authored or co-authored more than 50 publications both internal to GE Aerospace and available publicly. He has a B.S. and an M.S. in Mechanical Engineering from Rensselaer Polytechnic Institute with minors in Applied Math and Economics.

SPEAKERS AND PANELISTS



FELIX LECLAIR

TENSTORRENT

Felix LeClair is the Lead HPC engineer at Tenstorrent. His focus is on the enablement of classical and artificial intelligence (AI)-augmented high-performance computing workloads for novel accelerators, inclusive of next-generation hardware and software features on two-, three-, five-, and 10-year timescales. Mr. LeClair sits on the RISC-V international working groups for Vector, Matrix, and Floating point arithmetic. Prior to Tenstorrent, his work spanned global climate modeling with Environment Climate Change Canada, focusing on modernization of classical and AI-augmented climate simulations. He previously worked on reduced precision computational fluid dynamics for automotive workloads, FFMPEG assembly acceleration, and the AVX10 specification.

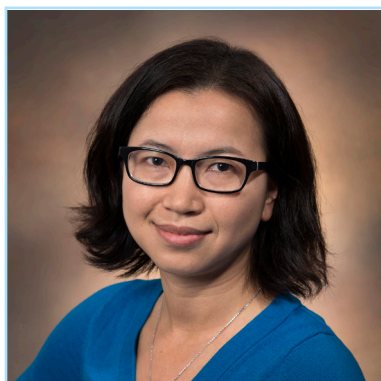


SHUHANG LI

COLUMBIA UNIVERSITY

Shuhang Li is a Ph.D. candidate in physics at Columbia University working on the sPHENIX experiment at the Relativistic Heavy Ion Collider, located on the Brookhaven National Laboratory campus. His research focuses on high-energy collisions of protons and heavy ions to study particle production mechanisms and probe the quark-gluon plasma (QGP). He also explores applications of modern artificial intelligence, from task-specific models to emerging scientific foundation models, to advance high-energy particle and nuclear physics.

SPEAKERS AND PANELISTS



MEIFENG LIN

BROOKHAVEN NATIONAL LABORATORY

Dr. Meifeng Lin presently is chair of the Computational Science Department in the Computing and Data Sciences Directorate and a Distinguished Scientist at Brookhaven National Laboratory. From 2019 to 2024, she led the High Performance Computing (HPC) Group in the Lab's Computational Science Initiative. Trained as a theoretical particle physicist, her diverse research interests include nuclear and particle physics, HPC technologies and applications, and quantum information science. Dr. Lin earned her doctorate in theoretical particle physics at Columbia University and her B.S. in physics at Peking University. Prior to joining Brookhaven Lab in 2013, she was a postdoctoral researcher at Massachusetts Institute of Technology, Yale University, and Boston University.



YUEWEI LIN

BROOKHAVEN NATIONAL LABORATORY

Dr. Yuewei Lin is a Senior Computational Scientist and Foundation Model Group Lead in the Artificial Intelligence Department at Brookhaven National Laboratory. He also serves as a Research Associate Professor in the Department of Computer Science at Stony Brook University. His research centers on machine learning, computer vision, and foundation models with a focused emphasis on their application to scientific challenges. His work aims to accelerate cross-disciplinary research by advancing adaptable and scalable AI methodologies for scientific discovery.

SPEAKERS AND PANELISTS



BENJI MARUYAMA

AIR FORCE RESEARCH LABORATORY

Dr. Benji Maruyama is a Principal Materials Research Engineer in the Air Force Research Laboratory, Materials and Manufacturing Directorate, RX Liaison to ACT3 and Autonomous Materials Lead for RX. Dr. Maruyama pioneered ARES™ autonomous experimentation for materials development with the aim of speeding the research process by orders of magnitude. His group built ARES Robots to study the synthesis and processing science of carbon nanotubes and worked with others for chemistry and additive manufacturing ARES Robots. Dr. Maruyama is the primary point of contact for carbon materials for the Materials and Manufacturing Directorate. His interests include carbon nanomaterials; energy storage; field emission; and carbon, polymer, and metal matrix composites. He currently is involved in the study of the origins of chiral growth for carbon nanotubes, catalyst development, and larger issues in democratization of science and the rate of scientific advancement.



SUSAN (SUE) MINKOFF

BROOKHAVEN NATIONAL LABORATORY

Dr. Sue Minkoff is the Chair of Applied Mathematics at Brookhaven National Laboratory. From 2012-2024, she was a professor of mathematical sciences and an affiliated professor in the departments of Sustainable Earth Systems Sciences and Science and Mathematics Education at the University of Texas at Dallas. From 2000-2012, she served on the faculty in the Department of Mathematics and Statistics at the University of Maryland, Baltimore County.

Dr. Minkoff's research interests include inverse problems, uncertainty quantification, artificial intelligence/machine learning, digital twins modeling, Earth science, and photonics. She received her doctorate in computational and applied mathematics from Rice University in 1995. From 1995-1997, she was a National Science Foundation-Industrial joint postdoc with the University of Texas at Austin and British Petroleum, and, from 1997-2000, she held the von Neumann Fellowship in the Mathematics Department at Sandia National Laboratories (New Mexico). In 2000, Dr. Minkoff was promoted to senior member of the technical staff in Sandia's Geophysics Department.

SPEAKERS AND PANELISTS



DAVID PARK

BROOKHAVEN NATIONAL LABORATORY

Dr. David Park is a Staff Scientist in the Artificial Intelligence Department at Brookhaven National Laboratory. His primary focus is scientific machine learning, designing continuity-aware, uncertainty-quantified spatiotemporal models that scale across modalities and compute regimes. Building on this core, Dr. Park collaborates on foundation models for science, followed by work on neural-field approaches for continuous space-time representations. He applies these methods across particle physics, brain imaging via functional magnetic resonance imaging and electroencephalography (fMRI/EEG), and ATLAS-scale distributed computing to deliver robust, reproducible inference in demanding scientific settings.

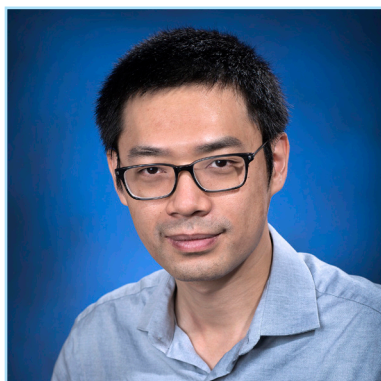


ROHAN PRADHAN

AMAZON WEB SERVICES

Rohan Pradhan is an Applied Scientist at the Generative AI Innovation Center within Amazon Web Services, where he works on applied research and deployment of frontier foundation models and agentic systems. His research focuses on advancing trust, safety, and alignment to ensure these systems perform reliably in mission-critical domains. Mr. Pradhan holds a graduate degree in machine learning from the University of Toronto and a bachelor's degree in computer science with a specialization in robotics from McGill University.

SPEAKERS AND PANELISTS



YIHUI (RAY) REN

BROOKHAVEN NATIONAL LABORATORY

Dr. Yihui (Ray) Ren is the AI Codesign Group Lead in the Artificial Intelligence Department within Brookhaven National Laboratory's Computing and Data Sciences Directorate. His research centers on AI hardware codesign, real-time AI, and the exploration of emerging AI hardware. In addition, he develops advanced AI methodologies for scientific applications, including domain mapping techniques, generative surrogate models, and foundation models. Dr. Ren led the team that created *FM4NPP*, the first large-scale foundation model tailored to nuclear and particle physics. Prior to joining Brookhaven Lab in 2018, he was a postdoctoral researcher at Virginia Tech. He earned a doctorate in physics from the University of Notre Dame in 2015.

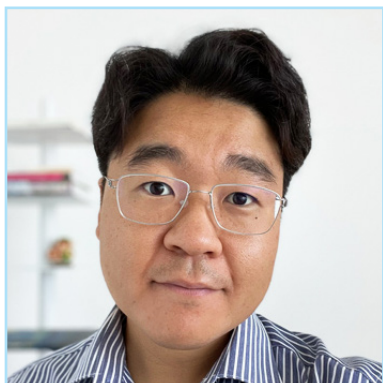


KRISTOFER REYES

UNIVERSITY AT BUFFALO

Dr. Kristofer Reyes is an Associate Professor in the Department of Materials Design and Innovation at the University at Buffalo, jointly appointed in the Applied Mathematics Group of the Computing and Data Sciences Directorate at Brookhaven National Laboratory. His research lies at the intersection of applied mathematics, machine learning, and materials science with a focus on Bayesian optimization, uncertainty quantification, and multiscale modeling. Dr. Reyes develops new methodologies for integrating simulation, experiment, and theory in the design of advanced materials, particularly through probabilistic and optimization-driven approaches to partial differential equation models, molecular dynamics, and autonomous experimentation. His work spans theory, computation, and large-scale collaborations, including projects with national laboratories and industry, aimed at accelerating materials discovery and advancing scientific decision-making under uncertainty.

SPEAKERS AND PANELISTS



MICHAEL S. RYOO

STONY BROOK UNIVERSITY

Dr. Michael S. Ryoo is a State University of New York Empire Innovation Associate Professor in the Department of Computer Science at Stony Brook University and a principal researcher at Salesforce AI Research. He previously was with the robotics team at Google DeepMind (formerly Google Brain), an assistant professor at Indiana University Bloomington, and a staff researcher within the Robotics Section of NASA's Jet Propulsion Laboratory. He earned his Ph.D. from the University of Texas at Austin in 2008 and B.S. from KAIST in 2004. Dr. Ryoo's research focuses on video representation learning and robot (action policy) learning. A list of his selected research projects includes: LLaRA, RT-2, RT-1, BLIP-3-Video, Token Turning Machines, TokenLearner, and more. Recently, Dr. Ryoo has been organizing the Conference on Robot Learning (CoRL) 2025.



TARA SAINATH

GOOGLE DEEPMIND

Dr. Tara Sainath is a leading expert in speech recognition and deep neural networks, holding an S.B., M.Eng, and Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology. After stints at IBM T.J. Watson Research Center, she now serves as a Tech Lead in Google DeepMind's Audio Pillar, integrating audio capabilities with large language models (LLMs).

Dr. Sainath's leadership is exemplified by her roles as Program Chair for the International Conference on Learning Representations (2017, 2018) and her extensive work co-organizing influential conferences and workshops. Her contributions to the field have been recognized with an Institute of Electrical and Electronics Engineers (IEEE) Fellowship, the 2021 IEEE Signal Processing Society (SPS) Industrial Innovation Award, and the 2022 *IEEE SPS Signal Processing Magazine* Best Paper Award.

SPEAKERS AND PANELISTS



NUR MUHAMMAD "MAHI" SHAFIULLAH

META FUNDAMENTAL AI RESEARCH |
BERKELEY AI RESEARCH

Dr. Nur Muhammad "Mahi" Shafiullah is a postdoctoral researcher with Jitendra Malik at Meta Fundamental AI Research (FAIR) and Berkeley AI Research (BAIR). His research is driven by a vision of robots seamlessly integrated into our messy everyday lives – automating problems and continuously learning alongside us. Dr. Shafiullah's recent work has developed new algorithms and systems for quickly learning generalizable robotic behavior that can handle dynamic changes in the world. He is passionate about getting these systems and algorithms out in the real world.

Dr. Shafiullah's work has been featured in Oral and Spotlight presentations and live demonstrations at conferences, including the Institute of Electrical and Electronics Engineers International Conference on Robotics and Automation, Robotics: Science and Systems, Conference on Neural Information Processing Systems (NeurIPS), International Conference on Machine Learning, International Conference on Learning Representations, and Conference on Computer Vision and Pattern Recognition. He received his Ph.D. in 2025 from New York University Courant under Lerrel Pinto, where he was supported by the Apple Fellowship in Artificial Intelligence/ Machine Learning. In a past life, Dr. Shafiullah was a silver medalist at the International Mathematical Olympiad and worked on adversarial robustness as an undergraduate at the Massachusetts Institute of Technology.



CARLOS XAVIER SOTO

BROOKHAVEN NATIONAL LABORATORY

Dr. Carlos Xavier Soto leads the AI Theory and Security (ATS) research group in Brookhaven National Lab's AI Department, as well as the Lab's new Scientific Embodied Agents Lab (SEAL). His work in ATS focuses on developing and using machine learning and natural language processing techniques for scientific and security applications – with a focus on safe, secure, and trustworthy artificial intelligence. In SEAL, he is working to leverage robotics and embodied AI to accelerate and strengthen scientific workflows. Dr. Soto is active in mentorship, outreach, and engagement activities with various communities and stakeholders and takes pride in effective communication of complex ideas. He holds a Ph.D. in Computer Engineering with a focus on AI Robotics from Texas A&M University, where he worked on human-robot interaction research.

SPEAKERS AND PANELISTS



RAJEEV THAKUR

ARGONNE NATIONAL LABORATORY

Dr. Rajeev Thakur is an Argonne Distinguished Fellow and Deputy Director of the Data Science and Learning Division at Argonne National Laboratory. He earned a doctorate in Computer Engineering from Syracuse University. His research interests include high-performance computing, parallel programming models, runtime systems, communication libraries, scalable parallel input/output (I/O), and artificial intelligence and machine learning.

Dr. Thakur is a co-author of the MPICH implementation of Message Passing Interface (MPI) and the ROMIO implementation of MPI-IO. He was part of the team that received the 2024 Association for Computing Machinery Software System Award for MPICH. He served as the Director of Software Technology for the U.S. Department of Energy's Exascale Computing Project (ECP) from 2016 to 2017 and led the ECP's Programming Models and Runtimes area from 2016 until the project's conclusion in 2024. Dr. Thakur also is an Institute of Electrical and Electronics Engineers Fellow.



LAV VARSHNEY

STONY BROOK UNIVERSITY

Dr. Lav Varshney is the Della Pietra Infinity Professor and inaugural director of the AI Innovation Institute at Stony Brook University. He is Co-founder and Chief Executive Officer of Kocree, Inc., a startup company using novel human-controllable artificial intelligence for discovery and creativity, and Chief Scientist of Ensaras, Inc., a startup company focused on AI and wastewater treatment. He holds appointments at RAND Corporation and Brookhaven National Laboratory. He previously was on the faculty of the University of Illinois Urbana-Champaign and recently a visiting scholar at Northwestern's Kellogg School of Management. Dr. Varshney is a former White House staffer, having served on the National Security Council staff as a White House Fellow, where he contributed to national AI and wireless communications policy. He was a research staff member at IBM Research and a principal research scientist at Salesforce Research AI. His research interests include information theory and AI. He received his B.S. degree from Cornell University and his S.M. and Ph.D. degrees from the Massachusetts Institute of Technology.

SPEAKERS AND PANELISTS



ADITYA VEMPATY

EMERGENCE AI

Dr. Aditya Vempaty is a Research Scientist at Emergence AI, focusing on agentic systems, recursive intelligence, and self-improvement. With a Ph.D. in Electrical Engineering and Computer Science, he has contributed to more than 50 research publications and multiple patents. Previously, he held research positions at IBM's Thomas J. Watson Research Center and Merlyn Mind Inc., focusing on human-machine systems and decision-making.



MENGDI WANG

PRINCETON UNIVERSITY

Dr. Mengdi Wang is Founding Director of Princeton AI for Accelerated Invention and Professor of the Department of Electrical and Computer Engineering and Center for Statistics and Machine Learning at Princeton University. She also is affiliated with the Department of Computer Science, Omenn-Darling Bioengineering Institute, and Princeton Language+Intelligence. She was a visiting research scientist at Google DeepMind, Institute for Advanced Study and Simons Institute on Theoretical Computer Science. Her research focuses on machine learning, reinforcement learning, generative artificial intelligence, large language models, and AI for science.

Dr. Wang received her doctorate in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (MIT) in 2013, where she was affiliated with the Laboratory for Information and Decision Systems and advised by Dimitri P. Bertsekas. Before that, she earned her bachelor's degree from the Department of Automation, Tsinghua University. Dr. Wang received the Young Researcher Prize in Continuous Optimization of the Mathematical Optimization Society in 2016 (awarded once every three years), Princeton School of Engineering and Applied Science Innovation Award in 2016, National Science Foundation (NSF) CAREER Award in 2017, Google Faculty Award in 2017, MIT Tech Review 35-Under-35 Innovation Award (China region) in 2018, 2022 World Artificial Intelligence Conference Yunfan Award, and American Automatic Control Council's Donald Eckman Award in 2024 for "extraordinary contributions to the intersection of control, dynamical systems, machine learning, and information theory." She served as a Program Chair for the International Conference on Learning Representations in 2023 and Senior Area Chair for the Conference on Neural Information Processing Systems (NeurIPS), International Conference on Machine Learning, and Conference on Learning Theory. She has been an associate editor for *Harvard Data Science Review* and *Operations Research*. Her research is supported by the NSF, Air Force Office of Scientific Research, National Institutes of Health, Office of Naval Research, Google, Microsoft C3.ai, FinUP, RVAC Medicines, MURI, and Genmab.

SPEAKERS AND PANELISTS



ALEX WILLIAMS

NEW YORK UNIVERSITY | FLATIRON INSTITUTE

Dr. Alex Williams is Assistant Professor of Neural Science at New York University and a Project Leader/Associate Research Scientist at the Flatiron Institute Center for Computational Neuroscience. His group develops statistical methods and probabilistic machine learning approaches to understand modern neuroscience datasets.



JINJUN XIONG

UNIVERSITY AT BUFFALO

Dr. Jinjun Xiong is Empire Innovation Professor with the Department of Computer Science and Engineering at the University at Buffalo (UB). He also serves as the Scientific Director for the \$20 million National AI Institute for Exceptional Education, the AI lead for the \$10 million Institute of Education Sciences Center for Early Literacy and Responsible AI, and Director for the State University of New York-UB Institute for Artificial Intelligence and Data Science. Prior to that, Dr. Xiong was a Senior Researcher and Program Director for AI and Hybrid Clouds Systems at the IBM Thomas J. Watson Research Center. He was the former co-founder and co-director for the IBM-Illinois Center for Cognitive Computing Systems Research (C3SR), the success of which in five years led to the center's 10-year, \$200 million expansion into the IBM-Illinois Discovery Accelerator Institute. His research interests are on across-stack AI systems research, including AI applications, algorithms, tooling, and computer architectures. Many of his research results have been adopted in IBM's products and tools. Dr. Xiong has published more than 200 peer-reviewed papers in top AI conferences and systems conferences. His publications have won nine Best Paper Awards with 10 additional nominations.

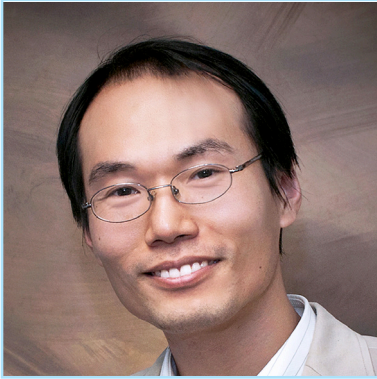
SPEAKERS AND PANELISTS



KEVIN YAGER

BROOKHAVEN NATIONAL LABORATORY

Dr. Kevin Yager is Interim Director of the Center for Functional Nanomaterials (CFN) at Brookhaven National Laboratory, where he is also the group leader for AI-Accelerated Nanoscience. Dr. Yager obtained his Ph.D. at McGill University on studies of photo-responsive polymers. He worked at the National Institute of Standards and Technology (NIST) on neutron scattering and joined Brookhaven Lab in 2010. Dr. Yager's research program combines studies of self-assembling thin films, X-ray scattering measurement methods, and artificial intelligence/machine learning for material discovery. He won the Brookhaven 2019 Science & Technology Award and was selected as an Oppenheimer Fellow by the Department of Energy in 2020.



SHINJAE YOO

BROOKHAVEN NATIONAL LABORATORY

Dr. Shinjae Yoo presently serves as the Computational Research Division Lead (Interim) in the Computing and Data Sciences Directorate at Brookhaven National Laboratory. He also is the Artificial Intelligence Department Chair, which is the focal point for the Lab's AI research. In 2025, he was named a Brookhaven Lab Distinguished Scientist. He earned a doctorate and M.S. in language technologies from Carnegie Mellon University and has an M.S. in computer science from Seoul National University.

SPEAKERS AND PANELISTS



PEI ZHANG

OAK RIDGE NATIONAL LABORATORY

Dr. Pei Zhang is a computational scientist in the Computational Sciences and Engineering Division at Oak Ridge National Laboratory (ORNL). Her research combines data-driven and physics-based modeling to address multiscale multiphysics problems. She develops transformer and graph-neural-networks-based foundation models for fluid dynamics systems and molecular systems and creates dimension-reduction methods for stiff chemical dynamic systems.

Dr. Zhang serves as the Principal Investigator on multiple Laboratory Directed Research and Development projects under ORNL's Artificial Intelligence Initiative. She earned her Ph.D. in Aerospace Engineering from Purdue University, specializing in large eddy simulation and transported probability density function methods.



PEIPEI ZHOU

BROWN UNIVERSITY

Dr. Peipei Zhou currently is an Assistant Professor at the Brown University School of Engineering. She received her Ph.D. in Computer Science (2019) and M.S. in Electrical and Computer Engineering (2014) from the University of California, Los Angeles and her B.S. in Electrical and Computer Engineering (2012) from Southeast University. Her research investigates architecture, programming abstraction, and design automation tools for reconfigurable computing and heterogeneous computing.

She has published 40 papers in Institute of Electrical and Electronics Engineers/Association for Computing Machinery (IEEE/ACM) computer system and design automation conferences and journals. Her work won the 2019 IEEE Transactions on Computer-Aided Design Donald O. Pederson Best Paper Award. Her other awards include the 2024 ACM/IEEE International Green and Sustainable Computing Conference Best Viewpoint Paper, 2025 ACM/Special Interest Group on Design Automation International Symposium on Field-Programmable Gate Arrays Best Paper Nominee, 2018 IEEE International Symposium on Performance Analysis of Systems and Software Best Paper Nominee, and 2018 IEEE/ACM International Conference on Computer-Aided Design Best Paper Nominee.



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