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Yan Wang is a Professor of Mechanical Engineering and leads the Multiscale Systems Engineering Research Group at the Georgia Institute of Technology. The research of the group is at the intersection of design, manufacturing, and materials. His research interests include modeling & simulation, design optimization, uncertainty quantification, physics-informed machine learning, and quantum scientific computing. He has published over 100 archived journal papers and over 100 peer-reviewed conference papers, including the ones with best conference paper awards at the American Society of Mechanical Engineers (ASME) Computers and Information in Engineering (CIE) Conference, ASME Multibody Systems, Nonlinear Dynamics, and Control Conference, The Minerals, Metals & Materials Society (TMS) World Congress on Integrated Computational Materials Engineering, the Institute of Industrial and Systems Engineers (IISE) Industrial Engineering Research Conference, and the International Computer-Aided Design Conference. He is a recipient of the U.S. National Science Foundation (NSF) CAREER Award, a National Aeronautics and Space Administration (NASA) Faculty Fellow, and an ASME Fellow. He has been frequently invited to give lectures and seminars at universities in U.S., Europe, and Asia, as well as to review proposals for different countries. He currently serves on the ASME leadership teams of Digitalization and Intelligent Manufacturing Technology Groups, as well as on the Workforce Technical Advisory Committee of the Quantum Economic Development Consortium. He was the Chair of ASME CIE Division and the Chair of ASME Advanced Modeling and Simulation Technical Committee. He is the current Editor-in-Chief of the ASME Journal of Computing and Information Science in Engineering.

Professor Wang received his B.S. degree from Tsinghua University, M.S. from Chinese Academy of Sciences, and Ph.D. from the University of Pittsburgh. His academic career started as a co-Principal Investigator to establish the NSF Industry-University Cooperative Research Center for e-Design in 2003 involving five major U.S. universities and dozens of major U.S. manufacturers. As the Center's information infrastructure research thrust lead, he worked on research issues of product lifecycle management including interoperability, cybersecurity in manufacturing, and quantified constraint satisfaction problem to enhance design and manufacturing intelligence. In 2007, he initiated a new research area, computer-aided nano-design, which is to develop new models and descriptions of complex and porous structures at multiple length scales and enable integrated product-materials engineering. The proposed novel periodic surface modeling approach has now been widely adopted by thousands of engineers and researchers worldwide in modeling porous structures such as additively manufactured scaffolds, metamaterials, and heat exchangers. Professor Wang also pioneered optimization and engineering simulation based on quantum computer a decade ago. His recent work includes hybrid physics-based data-driven approaches including scalable Bayesian optimization, physics-informed machine learning, physics-based compressive sensing, and trustworthy cyber-physical-social systems. Concurrently, he is also devoted to developing new mathematical formalisms and computational methods to enable reliable simulation under uncertainty and quantum scientific computing.