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Dr. Roberto Gioiosa is a senior research scientist at the Pacific Northwest National Laboratory (PNNL) in the High-Performance Computing Group. His research interests include operating systems and runtimes, high-performance computer architectures, memory, and networks, parallel and distributed programming models, resilience, performance and power modeling and analysis, and embedded systems. Dr. Gioiosa earned his Ph.D. in 2006 from the University of Rome "Tor Vergara", Rome Italy. He has worked at the Los Alamos National Laboratory (2004-2005), the Barcelona Supercomputing Center (BSC) (2006-2008 and 2009-2012), the IBM T.J. Watson Research Center (2008-2009) where he contributed to the development of the Compute Node Kernel for BG/Q systems, and Oak Ridge National Laboratory (2017-2018). Currently, his projects include the development of system software for extremely heterogeneous systems, system software for scalable distributed systems, DSSoC design, evaluation of emerging architecture and technologies for exascale systems and applications, and development of operating systems for exascale systems. Dr. Gioiosa leads the DOE/ASCR Center for co-design of ARTificial Intelligence focused Architectures and Algorithms (ARIAA). He is a member of the ACM and IEEE Computer Societies.