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Nota di contenuto	Retrieving Unknown SMT Formulas via Structural Mutations -- On the Cloud We Can't Wait: Asynchronous Actors Perform Even Better on the Cloud -- A Formal Model for Portable, Heterogeneous Accelerator Programming -- Evaluation of Speedup and Energy with Multigrain Parallelizing Compiler -- Hidden assumptions in static verification of data-race free GPU programs -- Intrepydd: Toward Performance, Productivity, and Portability for Massive Heterogeneous Parallelism -- Enabling User-level Asynchronous Tasking in the FA-BSP Model - Case Study: Distributed Triangle Counting -- Learning to harness in-vitro biological neural networks -- Verification of Concurrent Programs Using Hybrid Concrete-Symbolic Interpretation -- Scalable Small Message Aggregation on Modern Interconnects -- Preliminary Study on Message Aggregation Optimizations for Energy Savings in PGAS Models.
Sommario/riassunto	This Festschrift celebrates the career of Vivek Sarkar, a pioneer who has influenced research into programming languages, compilers, runtime systems, and debugging and verification systems for high-performance computers. After foundational Ph.D. work at Stanford University under

the mentorship of John L. Hennessy, Vivek joined IBM, where he contributed to the PTRAN Project, he led the design and implementation of the ASTI optimizer for the XL compiler, the design of the X10 programming language, and the development of the Jikes Research Virtual Machine, an open-source JVM that has enabled experimentation with advanced virtual machine technologies at hundreds of universities worldwide. He was appointed to a professorship at Rice University where he also served as Chair of the Dept. of Computer Science, and he is now the Chair of the School of Computer Science at Georgia Tech. Vivek is a member of the IBM Academy of Technology, he is an ACM Fellow and an IEEE Fellow, and he serves on the US Dept. of Energy Advanced Scientific Computing Advisory Committee and the CRA Board of Directors. In 2020 he received the ACM-IEEE CS Ken Kennedy Award for foundational technical contributions to the area of programmability and productivity in parallel computing, and leadership contributions to professional service, mentoring, and teaching. This volume celebrates Vivek Sarkar's transformative work. Motivated by the challenges of high-performance and exascale computing, he has profoundly shaped both industry practices and academic research through pioneering innovations, technical expertise, and dedicated mentorship, and is a role model for generations of computer scientists. .
