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Descrizione fisica	1 online resource (157 pages)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 13194
Disciplina	005.13
Soggetti	Compilers (Computer programs) Computer engineering Computer networks Microprogramming Computer input-output equipment Compilers and Interpreters Computer Engineering and Networks Control Structures and Microprogramming Input/Output and Data Communications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Can Fortran's `do concurrent' Replace Directives for Accelerated Computing? -- Achieving near native runtime performance and cross-platform performance portability for random number generation through SYCL interoperability -- Extending OpenMP for Machine Learning-Driven Adaptation -- GPU porting of scalable implicit solver with Green’s function-based neural networks by OpenACC -- Challenges Porting a C++ Template-Metaprogramming Abstraction Layer to Directive-based Offloading -- Accelerating quantum many-body configuration interaction with directives -- GPU offloading of a large-scale gyrokinetic particle-in-cell Fortran code: From OpenACC to OpenMP.
Sommario/riassunto	This book constitutes the proceedings of the 8th International

Workshop on Accelerator Programming Using Directives, WACCPD 2021, which took place in November 2021. The conference was held as hybrid event. WACCPD is one of the major forums for bringing together users, developers, and the software and tools community to share knowledge and experiences when programming emerging complex parallel computing systems. The 7 papers presented in this volume were carefully reviewed and selected from 11 submissions. They were organized in topical sections named: Directive Alternatives; Directive Extensions; and Directive Case Studies.