1. Record Nr. UNINA9910554016603321 2021 12th Workshop on Latest Advances in Scalable Algorithms for Titolo Large-Scale Systems (ScalA) / / Institute of Electrical and Electronics Engineers Piscataway, New Jersey:,: IEEE,, 2021 Pubbl/distr/stampa **ISBN** 1-66541-128-7 Descrizione fisica 1 online resource (51 pages) Disciplina 004.11 High performance computing Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Novel scalable scientific algorithms are needed in order to enable key science applications to exploit the computational power of large scale systems This is especially true for the current tier of leading petascale machines and the road to exascale computing as HPC systems continue to scale up in compute node and processor core count These extreme scale systems require novel scientific algorithms to hide network and memory latency, have very high computation communication overlap, have minimal communication, and have no synchronization points With the advent of Big Data and AI in the past few years the need of such scalable mathematical methods and algorithms able to handle data and compute intensive applications at scale becomes even more important.