

1. Record Nr.	UNINA9910792632003321
Titolo	Co-scheduling of HPC applications // edited by Carsten Trinitis and Josef Weidendorfer
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : IOS Press, , 2017 ©2017
ISBN	1-61499-730-6
Descrizione fisica	1 online resource (176 pages) : illustrations
Collana	Advances in Parallel Computing ; ; Volume 28
Disciplina	004.35
Soggetti	High performance computing Computer scheduling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Co-Scheduling: Prospects and Challenges -- Recent Processor Technologies and Co-Scheduling -- Contention-Aware Scheduling Policies for Fairness and Throughput -- Allocation-Internal Co-Scheduling-Interaction and Orchestration of Multiple Concurrent MPI Sessions -- Detailed Application Characterization and Its Use for Effective Co-Scheduling; Initial Formulation of Why Disallowing Same Program Co-Schedules Improves Performance -- Virtualization in HPC- An Enabler for Adaptive Co-Scheduling? -- Impact of the Scheduling Strategy in Heterogeneous Systems That Provide Co-Scheduling.
Sommario/riassunto	High-performance computing (HPC) has become an essential tool in the modern world. However, systems frequently run well below theoretical peak performance, with only 5% being reached in many cases. In addition, costly components often remain idle when not required for specific programs, as parts of the HPC systems are reserved and used exclusively for applications. A project was started in 2013, funded by the German Ministry of Education and Research (BMBF), to find ways of improving system utilization by compromising on dedicated reservations for HPC codes and applying co-scheduling of applications instead. The need was recognized for international discussion to find the best solutions to this HPC utilization issue, and a workshop on co-scheduling in HPC, open to international participants the COSH

workshop was held for the first time at the European HiPEAC conference, in Prague, Czech Republic, in January 2016. This book presents extended versions of papers submitted to the workshop, reviewed for the second time to ensure scientific quality. It also includes an introduction to the main challenges of co-scheduling and a foreword by Arndt Bode, head of LRZ, one of Europe's leading computer centers, as well as a chapter corresponding to the invited keynote speech by Intel, whose recent extensions to their processors allow for better control of co-scheduling.

2. Record Nr.	UNINA9910298635703321
Autore	Kricheldorf Hans
Titolo	Polycondensation : history and new results // Hans Kricheldorf
Pubbl/distr/stampa	Heidelberg [Germany] : , : Springer, , 2014
ISBN	3-642-39429-9
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (xi, 291 pages) : illustrations
Collana	Gale eBooks
Disciplina	54 541.2254 547 547.7
Soggetti	Polycondensation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Experiments before World War I -- W.H. Carothers - Life and Work -- P. J. Flory and the Theory of Step-Growth Polymerization -- W. Stockmayer and the Role of Equilibration -- Important Polycondensates -- The Role of Cyclization and a new Theory of Step-Growth Polymerization -- Non-Stoichiometric Polycondensations -- Ring-Opening Polycondensation -- Multibranched Polymers by $a_2 + b_n$ Polycondensations -- Hyperbranched Polymers by $ab_n$ Polycondensations -- Multicyclic Polymers -- Polycondensations via Electrostatic Interactions -- Solid State Polycondensations -- Combined Ring-Opening Polymerization and Polycondensation -- Condensative

## Chain Polymerization.

### Sommario/riassunto

This book reports on origin and history of polycondensation chemistry beginning in the first half of the 19th century. Furthermore, history and inventors of the most important polycondensates, such as Nylons, PET or polycarbonates, are described. The classical theory of step-growth polymerizations is discussed in the light of the latest experimental and theoretical results. Particular emphasis is laid on the role of cyclization reactions. Special categories of polycondensation processes are discussed in more detail: syntheses of hyperbranched and multicyclic polymers, non-stoichiometric polycondensations, interfacial polycondensations, solid state polycondensations, condensative chain polymerizations etc.