Record Nr. UNINA9910300101003321 Sparse Grids and Applications - Miami 2016 / / edited by Jochen **Titolo** Garcke, Dirk Pflüger, Clayton G. Webster, Guannan Zhang Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-75426-2 Edizione [1st ed. 2018.] 1 online resource (X, 262 p. 56 illus., 41 illus. in color.) Descrizione fisica Collana Lecture Notes in Computational Science and Engineering, , 1439-7358; ; 123 Disciplina 518 Soggetti Computer mathematics Computer science—Mathematics Computer simulation Approximation theory Computational Mathematics and Numerical Analysis Mathematics of Computing Simulation and Modeling Approximations and Expansions Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Sommario/riassunto Sparse grids are a popular tool for the numerical treatment of highdimensional problems. Where classical numerical discretization schemes fail in more than three or four dimensions, sparse grids, in their different flavors, are frequently the method of choice. This volume of LNCSE presents selected papers from the proceedings of the fourth workshop on sparse grids and applications, and demonstrates once again the importance of this numerical discretization scheme. The articles present recent advances in the numerical analysis of sparse grids in connection with a range of applications including computational chemistry, computational fluid dynamics, and big data

analytics, to name but a few.