Record Nr. UNINA9910438031803321 Autore Pappalardo Elisa Titolo Optimization approaches for solving string selection problems / / Elisa Pappalardo, Panos M. Pardalos, Giovanni Stracquadanio New York:,: Springer,, 2013 Pubbl/distr/stampa 1-4614-9053-7 **ISBN** Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (viii, 49 pages): illustrations (some color) SpringerBriefs in Optimization, , 2191-575X Collana Disciplina 004.0151 574.87/3282 Soggetti Mathematical optimization Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "ISSN: 2190-8354." Note generali Nota di bibliografia Includes bibliographical references and index. 1. Biological Sequences -- 2. Strings: Theory, Properties and Nota di contenuto Applications -- 3. Mathematical Optimization -- 4. String Selection Problems. Optimization Approaches for Solving String Selection Problems provides Sommario/riassunto an overview of optimization methods for a wide class of genomicsrelated problems in relation to the string selection problems. This class of problems addresses the recognition of similar characteristics or differences within biological sequences. Specifically, this book considers a large class of problems, ranging from the closest string and substring problems, to the farthest string and substring problems, to the far from most string problem. Each problem includes a detailed description, highlighting both biological and mathematical features and presents state-of-the-art approaches. This Brief provides a quick introduction of optimization methods for string selection problems for young scientists and a detailed description of the mathematical and computational methods developed for experts in the field of optimization who want to deepen their understanding of the

string selection problems. Researchers, practitioners and graduate students in the field of Computer Science, Operation Research, Mathematics, Computational Biology and Biomedicine will find this

book useful...