Record Nr. UNINA9910484872903321 DNA Computing and Molecular Programming: 23rd International **Titolo** Conference, DNA 23, Austin, TX, USA, September 24-28, 2017. Proceedings / / edited by Robert Brijder, Lulu Qian Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 **ISBN** 3-319-66799-8 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XII, 267 p. 76 illus.) Collana Theoretical Computer Science and General Issues, , 2512-2029;; 10467 006.3842 Disciplina Soggetti Computer science **Algorithms Bioinformatics** Artificial intelligence Artificial intelligence—Data processing Computer science—Mathematics Discrete mathematics Theory of Computation Computational and Systems Biology Artificial Intelligence **Data Science** Discrete Mathematics in Computer Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Algorithms and models for computation with biomolecular systems --Computational processes in vitro and in vivo -- Molecular motors and molecular robotics -- Studies of fault-tolerance and error correction --Software tools for analysis, simulation, and design -- Synthetic biology and in vitro evolution -- Applications in engineering, physics, chemistry, biology, and medicine.

This book constitutes the refereed proceedings of the 23th International Conference on DNA Computing and Molecular

Sommario/riassunto

Programming, DNA 23, held Austin, TX, USA, in September 2017. The 16 full papers presented were carefully selected from 23 submissions. Research in DNA computing aims to draw together mathematics, computerscience, physics, chemistry, biology, and nanotechnology to address the analysis, design, and synthesis of information-based molecular systems. The papers address all areas related to biomolecular computing such as: algorithms and models for computation with biomolecular systems; computational processes in vitro and in vivo; molecular motors and molecular robotics; studies of fault-tolerance and error correction; software tools for analysis, simulation, and design; synthetic biology and in vitro evolution; applications in engineering, physics, chemistry, biology, and medicine.