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	Nota di contenuto	Extending DNA-Sticker Arithmetic to Arbitrary Size Using Staples -- Parallel Computation Using Active Self-assembly -- DNA Walker Circuits: Computational Potential, Design, and Verification -- Leaderless Deterministic Chemical Reaction Networks -- DNA Sticky End Design and Assignment for Robust Algorithmic Self-assembly -- DNA Reservoir Computing: A Novel Molecular Computing Approach -- Signal Transmission across Tile Assemblies: 3D Static Tiles Simulate Active Self-assembly by 2D Signal-Passing Tiles -- 3-Color Bounded

Patterned Self-assembly (Extended Abstract) -- Exponential Replication of Patterns in the Signal Tile Assembly Model -- Modular Verification of DNA Strand Displacement Networks via Serializability Analysis -- Iterative Self-assembly with Dynamic Strength Transformation and Temperature Control -- Probabilistic Reasoning with an Enzyme-Driven DNA Device -- Staged Self-assembly and Polyomino Context-Free Grammars -- Functional Analysis of Large-Scale DNA Strand Displacement Circuits.

Sommario/riassunto	This book constitutes the refereed proceedings of the 19th International Conference on DNA Computing and Molecular Programming, DNA 19, held in Tempe, AZ, USA, in September 2013. The 14 full papers presented were carefully selected from 29 submissions. The papers are organized in many disciplines (including mathematics, computer science, physics, chemistry, material science and biology) to address the analysis, design, and synthesis of information-based molecular systems.