

32nd International Conference on DNA Computing and Molecular Programming

DNA 32, August 3–7, 2026, Fayetteville, Arkansas, US

Edited by

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Contents

Preface	
<i>Dominic Scalise and Robert Schweller</i>	0:vii
Organization	
.....	0:ix
List of Authors	
.....	0:xv

Papers

Sequential Non-Determinism in Tile Self-Assembly: A General Framework and an Application to Efficient Temperature-1 Self-Assembly of Squares	
<i>David Furcy and Scott M. Summers</i>	1:1–1:18
Powers and Limitations of Synchronous Self-Assembly: Non-cooperative Assemblies and Limited Synchronization	
<i>Florent Becker, Phillip Drake, Matthew J. Patitz, and Ryder Smith</i>	2:1–2:23
Shape Reachability in Oritatami Is Complete for P	
<i>Sota Kano and Shinnosuke Seki</i>	3:1–3:18
PENSIm: A Toolkit for PEN-DNA Systems	
<i>Gwendal Ducloz and Nicolas Schabanel</i>	4:1–4:24
Geometric Constraint Optimization for Localized Strand Displacement Reactions	
<i>Matthew R. Lakin</i>	5:1–5:23
Reverse-Robust Computation with Chemical Reaction Networks	
<i>Ravi Kini and David Doty</i>	6:1–6:16
Scaling up Thermodynamically Favoured Scaffolded DNA Computing by Sculpting the Energy Landscape	
<i>Joshua Petrack, Constantine G. Evans, Angel Cervera Roldan, Mahboobeh Enayati, and Damien Woods</i>	7:1–7:22
Amplification at Equilibrium: Structural and Thermodynamic Limitations, and Implementation	
<i>Hamidreza Akef, Chia-Yu Sung, Aneesh Vanguri, and David Soloveichik</i>	8:1–8:24
Thermodynamic Binding Networks Capture Equilibrium Monomer-Polymer Thermodynamics	
<i>And Kaan Ata Yilmaz, David Soloveichik, and Austin Luchsinger</i>	9:1–9:20
Modularity of Signal Propagation Networks in the Thermodynamic Binding Network Model	
<i>And Kaan Ata Yilmaz and David Soloveichik</i>	10:1–10:23
Universal Spatial Distribution Approximation in Equilibrium Lattice Models with Local Pairwise Interactions	
<i>Cameron Chalk and Erik Winfree</i>	11:1–11:24

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Scalable Enumeration of Pareto-Optimal Polymers for Computing Equilibrium
Concentrations

Archit Patil, Minki Hhan, and David Soloveichik 12:1–12:24

Contrastive Hebbian Learning for Multicomponent Liquids

Yancheng Du, Cameron Chalk, Salvador Buse, Lulu Qian, and Erik Winfree 13:1–13:27

Bounded Analog Complexity

Ho-Lin Chen and Xiang Huang 14:1–14:22

Preface

This LIPIcs volume contains the papers that have been accepted to Track A of the 32nd International Conference on DNA Computing and Molecular Programming (DNA 32), organized by Matt Patitz and his team at the University of Arkansas, Fayetteville, Arkansas, US, during August 3–7, 2026, under the auspices of the International Society for Nanoscale Science, Computation, and Engineering (ISNSCE).

The DNA conference series aims at providing researchers from the fields of mathematics, computer science, physics, chemistry, biology, and nanotechnology, among others, with a forum to collaboratively address the analysis, design, and synthesis of information-based molecular systems. Papers and presentations were sought in all areas that relate to biomolecular computing including, but not restricted to, algorithms and models of computation for biomolecular systems, computational processes *in vitro* and *in vivo*, molecular switches, gates, devices, and circuits, molecular folding and self-assembly of nanostructures, analysis and theoretical models of laboratory techniques, molecular motors and molecular robotics, information storage, studies of fault-tolerance and error correction, software tools for analysis, simulation, and design, synthetic biology and *in vitro* evolution, and applications in engineering, physics, chemistry, biology, and medicine.

Authors who wished to orally present their work were asked to select one of the two submission tracks: Track A (full paper) or Track B (one-page abstract accompanied by a supplementary document). Track B is primarily for those who plan to submit experimental or theoretical results to a journal rather than publish in the conference proceedings. There were 42 submissions for oral presentations (23 to Track A and 19 to Track B), from Belgium, Canada, China, France, Germany, Iraq, Ireland, Italy, Japan, South Korea, Sweden, Taiwan, the UK, and the USA. Each of the 42 qualified submissions was reviewed by at least three reviewers, with most reviewed by four or more, and thoroughly discussed by the Program Committee (PC). The committee decided to accept 14 papers for Track A (61%) and 13 submissions for Track B (68%). We also received 30 submissions for Track C (poster), of which 6 were selected as additional short oral presentations.

We warmly thank Yann Ponty, Chris Thachuk, Fei Zhang, Chaim Goodman-Strauss, and Shelley Wickham for their intellectually stimulating invited talks, and all the authors of the submissions for making DNA 32 successful. As the PC co-chairs, we would like to express our gratitude towards the PC members and the external reviewers for their hard work in reviewing the papers within a tight schedule and for providing insightful and constructive comments in order to maintain the high standard of the DNA conferences. We would like to thank the editorial staff of Dagstuhl Publishing Team, and in particular Michael Wagner for his guidance and help during the process of publishing this volume. We also greatly appreciate the guidance from Damien Woods, David Soloveichik, and Josie Schaeffer during the process of organizing the program. Last but not least, we are grateful to the Organizing Committee members Matt Patitz and Jenna Stacey.

Dominic Scalise and Robert Schweller

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