

THE SEVENTEENTH INTERNATIONAL CONFERENCE ON
DNA COMPUTING AND MOLECULAR PROGRAMMING

September 19-23, 2011 Caltech, Pasadena, California, USA

INTRODUCTION

The Meeting: Research in DNA computing and molecular programming draws together mathematics, computer science, physics, chemistry, biology, and nanotechnology to address the analysis, design, and synthesis of information-based molecular systems. This annual meeting is the premier forum where scientists with diverse backgrounds come together with the common purpose of advancing the engineering and science of biology and chemistry from the point of view of computer science, physics, and mathematics. Continuing this tradition, the 17th International Conference on DNA Computing and Molecular Programming (DNA17), under the auspices of the International Society for Nanoscale Science, Computation and Engineering (ISNSCE), will focus on the most recent experimental and theoretical results that promise the greatest impact.

Solicitation for Papers: Papers and poster presentations are sought in all areas that relate to biomolecular computing using DNA and/or other molecules, including but not restricted to: (1) algorithms and models of computation for biomolecular systems; (2) control of molecular folding and self-assembly to construct nanostructures; (3) demonstration of switches, gates, devices, and circuits; (4) molecular motors and molecular robotics; (5) computational processes *in vitro* and *in vivo*; (6) studies of fault-tolerance and error correction; (7) synthetic biology and *in vitro* evolution; (8) software tools for analysis, simulation, and design; (9) applications in engineering, physics, chemistry, biology, and medicine.

Dates and Deadlines: Please note that the conference dates have been shifted from June to September to be suitably staggered from the other ISNSCE-sponsored conference, Foundations of Nanoscience: Self-Assembled Architectures and Devices (FNANO). Please note that the new schedule demands that **deadlines will be firmly enforced**. The May 2 submission deadline will not be extended. Revised manuscripts submitted by the July 17 deadline will be the final versions for the LNCS proceedings; there will be no additional revisions possible after the conference.

INVITED SPEAKERS

Vincent Danos

Computational Systems Biology, University of Edinburgh, Edinburgh, UK.

Yamuna Krishnan

Biochemistry, Biophysics, & Bioinformatics, National Centre for Biological Sciences, Bangalore, India.

Niles Lehman

Chemistry, Portland State University, Portland, Oregon, USA.

Jack Lutz

Computer Science, Iowa State University, Ames, Iowa, USA.

Hao Yan

Chemistry & Biochemistry, Arizona State University, Tempe, Arizona, USA.

IMPORTANT DATES

Submission deadline (firm): May 2, 2011 before 10pm PST
Notification of acceptance: June 19, 2011
Revised manuscripts due: July 17, 2011
Conference: September 19-23, 2011
Accommodation deadline: August 19, 2011

RELATED EVENTS

September 19, 2011 – Tutorial Day: The first day of the meeting will consist of tutorials covering important topics related to DNA computing and molecular programming.

CONFERENCE WEBSITE

For further information, please see <http://dna17.caltech.edu>.

INSTRUCTIONS FOR AUTHORS

Electronic Submissions: All papers and abstracts should be submitted electronically following the instructions and link at the conference web page, <http://dna17.caltech.edu>. The submission site will open by **April 2, 2011** and close on **May 2, 2011 at 10pm Pasadena time (PST)**. Papers must be submitted in PDF format. The use of \LaTeX is strongly encouraged for Track A submissions, as it will be required for the revised manuscript included in the LNCS proceedings of accepted papers.

TRACKS

Authors may choose between three submission tracks.

Track A - Full Paper: For authors who want their full papers to be published in the conference proceedings. Submissions will be considered for oral presentation; those that are not accepted for oral presentation will automatically be considered for poster presentation. Submissions should conform to the following guidelines:

- The total length of the paper should not exceed 15 pages and should be formatted in \LaTeX for the Springer-Verlag Lecture Notes in Computer Science (LNCS). Please follow the formatting instructions at: <http://www.springer.de/comp/lncs/authors.html>.
- Each paper should contain an abstract which briefly describes the primary results and their importance.
- Selected papers will be published in the proceedings, available at the conference and as part of the LNCS series. Submissions to Track A may not be previously published or simultaneously submitted to another conference or journal for publication.

Track B - One-Page Abstract: Primarily for authors submitting experimental results who plan to submit to a journal rather than publish in the conference proceedings. (Abstracts for work recently submitted to or published in a journal will also be considered.) Submissions will be considered for oral presentation; those that are not accepted for oral presentation will automatically be considered for poster presentation. Submissions should conform to the following guidelines:

- The total length of the abstract should not exceed 1 page (11 point type, single spaced, 1 inch margins).
- The one-page abstract should describe the primary results and their importance.
- Authors must include a preliminary manuscript, a thesis chapter or some other form of supporting documentation that can be used by the program committee to evaluate the merit of the work for oral presentation. Only the one-page abstract will appear in the proceedings. Track B papers unaccompanied by adequate documentation will not be eligible for oral presentation.

Track C - Poster Only: For authors interested in presenting their work only in the poster session. Submissions should conform to the following guidelines:

- The total length of the abstract should not exceed 1 page (11 point type, single spaced, 1 inch margins).
- The one-page abstract should describe the primary results and their importance.

STUDENT PAPER PRIZES

The best two papers with a student as the lead and presenting author will be awarded travel prizes. For eligible papers, a brief recommendation letter (such as from the student's advisor) should be emailed to dna17@easychair.org. Recipients of the prize will be notified at the time of acceptance. Some other student scholarships may also be available.

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