

---

## CALL FOR PAPERS

---

**DNA20:** The Twentieth International Meeting on DNA Computing  
and Molecular Programming

Shiran-kaikan, Kyoto University, Japan, September 22--26, 2014

<http://dna20.molecular-robotics.org/>

---

### 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 applying principles and tools of computer science, physics, chemistry and mathematics to advance molecular-scale engineering and biology. Continuing this tradition, the 20th International Conference on DNA Computing and Molecular Programming (DNA20), organized under the auspices of the International Society for Nanoscale Science, Computation and Engineering (ISNSCE), will focus on the most important recent experimental and theoretical results.

### SOLICITATION FOR PAPERS

Papers and presentations are sought in all areas that relate to biomolecular computing, including, but not restricted to: algorithms and models for computation on biomolecular systems; computational processes *in vitro* and *in vivo*; molecular switches, gates, devices, and circuits; molecular foldings and self-assembly of nanostructures; analysis and theoretical models of laboratory techniques; 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.

---

### IMPORTANT DATES

---

Paper/presentation/poster submission deadline:	April 15, 2014
Notification of paper/presentation/poster acceptance:	May 30, 2014
Revised manuscripts due:	June 20, 2014
Breaking news poster submission deadline:	July 25, 2014
Notification of breaking news poster acceptance:	August 1, 2014
Early registration deadline:	August 5, 2014
Conference:	September 22-26, 2014

---

## INVITED SPEAKERS

Cris Calude	The University of Auckland
Anne Condon	University of British Columbia
Rhiju Das	Stanford University
Shawn Douglas	University of California San Francisco
Masaki Sano	The University of Tokyo
Hiroshi Sugiyama	Kyoto University

## RELATED EVENTS

- Molecular Robotics Workshop: September 26th
- Tutorial Day: September 22nd

## WEBSITE

<http://dna20.molecular-robotics.org/>

## INSTRUCTIONS FOR AUTHORS

Electronic Submissions: All papers and abstracts should be submitted electronically following the instructions and link at the conference web page, <http://dna20.molecular-robotics.org/>. 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

### I. Submissions to be considered for oral presentations

Authors submitting a paper and/or proposal for a presentation may choose between two submission tracks. The submission site will open by February 15, 2014 and close on April 15, 2014 at 11:59pm (GMT). Submissions for oral presentations can be submitted to one of the two tracks (A) or (B).

**Track A - Full Paper:** For authors who want their full papers to be published in the conference proceedings. Submissions (a single .pdf file) should conform to the following guidelines:

- The total length of the paper does not exceed 12 pages and is expected to 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 with accompanied material:** 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.) To be considered for oral presentation submissions should conform to the following guidelines:

A single .pdf file containing

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

• *Accompanied documentation:* Authors must attach to the abstract 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 supplementary proceedings at the conference. Track B papers unaccompanied by adequate documentation will not be eligible for oral presentation.

## **II. Poster submissions (Track (C) )**

For authors interested in presenting their work only in the poster session, the abstract submission will be through the same website (<http://dna20.molecular-robotics.org/>), which will open on February 15, 2014. There are two submission deadlines; April 15 and July 25, 2014. The second deadline is for authors who wish to present latest new results in the poster session. All poster 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 PRIZES**

The conference and the ISNSCE society will award two prizes: "DNA20 Best Student Paper Award" and "ISNSCE Best Student Presentation Award". For eligible papers, a brief recommendation letter (such as from the student's advisor) should be emailed to dna20@molecular-robotics.org. Recipients of the prize will be notified at the time of banquet.

## **STUDENT TRAVEL AWARDS**

20-30 travel awards of 30,000 JPY each (subject to change according to the number of applicants) are available for student and post doc authors. The application form will be sent after the acceptance notifications.

## **STEERING COMMITTEE**

Natasha Jonoska (Chair)	Mathematics, University of South Florida, USA
Luca Cardelli	Microsoft Research Cambridge, UK
Anne Condon	Computer Science, University of British Columbia, Canada
Masami Hagiya	Computer Science, University of Tokyo, Japan
Lila Kari	Computer Science, University of Western Ontario, Canada
Satoshi Kobayashi	University of Electro-Communication, Chofu, Japan
Chengde Mao	Chemistry, Purdue University, USA
Satoshi Murata	Bioengineering & Robotics, Tohoku University, Japan
John Reif	Computer Science, Duke University, USA
Grzegorz Rozenberg	Computer Science, University of Leiden, The Netherlands
Nadrian Seeman	Chemistry, New York University, USA
Friedrich Simmel	Bionanotechnology, Technische Universitat Munchen, Germany
Andrew Turberfield	Physics, Oxford University, UK
Hao Yan	Chemistry and biochemistry, Arizona State, USA
Erik Winfree	Computer Science, Bioengineering, Computation & Neural Systems, California Institute of Technology, USA

## **PROGRAM COMMITTEE**

Robert Brijder	Hasselt University, Belgium
Luca Cardelli	Microsoft Research, UK
David Doty	California Institute of Technology, USA
Andrew Ellington	The University of Texas at Austin, USA
Andre Estevez-Torres	CNRS France
Kaoru Fujioka	Fukuoka Women's University, Japan
Shougo Hamada	Cornell University, USA
Natasha Jonoska	University of South Florida, USA

Lila Kari	University of Western Ontario, CA
Satoshi Kobayashi (co-chair)	University of Electro-Communications, Japan
Steffen Kopecki	University of Western Ontario
Akinori Kuzuya	Kansai University, Japan
Chengde Mao	Purdue University,
Satoshi Murata (co-chair)	Tohoku University, Japan
Pekka Orponen,	Aalto University, Finland
Jennifer Padilla	New York University, USA
John Reif	Duke University, USA
Alfonso Rodriguez-Paton	Universidad Politecnica de Madrid, Spain
Yannick Rondelez	Bioengineering, University of Tokyo, Japan
Hirohide Saito	Kyoto University, Japan
Robert Schweller	University of Texas-Pan American, USA
Shinnosuke Seki	Aalto University, Finland
Friedrich Simmel	Technical University Munich, Germany
David Soloveichik	UCSF, USA
Darko Stefanovic	University of New Mexico, USA
Chris Thachuk	University of Oxford UK
Andrew Turberfield	University of Oxford, UK
Erik Winfree	California Institute of Technology, USA
Damien Woods	California Institute of Technology, USA
Peng Yin	Harvard Medical School, USA
Bernard Yurke	Boise State University, USA
Byoung-Tak Zhang	Seoul National University, South Korea

#### **ORGANIZING COMMITTEE**

Hirohide Saito (co-chair)	Kyoto University
Masayuki Endo (co-chair)	Kyoto University
Akinori Kuzuya	Kansai University

If you have any questions about this CFP, please feel free to contact PC chairs at [dna20@molecular-robotics.org](mailto:dna20@molecular-robotics.org).