

DNA20 PROGRAM Ver.3 (as of Sept.14)

Monday, September 22		
Start Time	Activity	Chair
9:00	Open Reception Desk	
10:00	Tutorial 1 Masami Hagiya/ New generation molecular computing and control	S.Murata
11:00	Tutorial 2 Kazutoshi Takahashi/ Dissecting the molecular mechanisms of cellular reprogramming	H.Saito
12:00	Lunch on your own	
13:25	Opening Remark Hirohide Saito	
13:30	Plenary Talk 1 Hiroshi Sugiyama/ Single-molecule Observation in the DNA Origami Nanostructures	N.Seeman
14:30	Ryosuke Iinuma, Yonggang Ke, Ralf Jungmann, Thomas Schlichthaerle , Johannes Wohrstein and Peng Yin/ Polyhedra Self-Assembled from DNA Tripods and Characterized with 3D DNA-PAINT	N.Seeman
15:00	Break 15 min	
15:15	Ashwin Gopinath and Paul W. K. Rothemund/ Directed self-assembly of covalently-coupled DNA origami nanoarrays	A.E.-Torres
15:45	Michael Mertig, Elisabeth Schreyer, Matthew Wiens, Anja Henning and Nora Haufe/ Chemical in-situ control over the geometric dimensions of DNA origami	A.E.-Torres
16:15	Break 15 min	
16:30	Steven Perrault and William Shih/ Virus-Inspired Membrane Encapsulation of DNA Nanostructures to Achieve In Vivo Stability	A.Kuzuya
17:00	Cody Geary, Paul Rothemund and Ebbe Sloth Andersen/ A Single-Stranded Architecture for Cotranscriptionally Folded RNA Tiles	A.Kuzuya
17:30	Poster Session I	
18:30	Dinner on your own	

Tuesday, September 23

Start Time	Activity	Chair
9:00	Plenary Talk 2 Cris Calude/ The Quest for Quantum Randomness	J. Reif
10:00	Ho-Lin Chen, David Doty, Dhiraj Holden, Chris Thachuk, Damien Woods and Chun Tao Yang/ Fast algorithmic self-assembly of simple shapes using random agitation	J. Reif
10:30	Break 30 min	
11:00	Rachel Cummings, David Doty and David Soloveichik/ Probability 1 computation with chemical reaction networks	S.Seki
11:30	Fumiya Okubo and Takashi Yokomori/ The Computational Capability of Chemical Reaction Automata	S.Seki
12:00	Lunch	
13:30	Plenary Talk 3 Masaki Sano/ From Non-Equilibrium Physics to Active Matter	M.Hagiya
14:30	Anthony J. Genot, Alexandre Baccouche, Remi Sieskind, Nathanael Aubert, Nicolas Bredeche, Jean-Francois Bartolo, Valerie Taly, Teruo Fujii and Yannick Rondelez/ High resolution landscape of a molecular program	M.Hagiya
15:00	Break 15 min	
15:15	Di Liu, Gang Chen, Usman Akhter, Timothy Cronin and Yossi Weizmann/ Creating Complex Molecular Topologies by Configuring DNA Four-Way Junctions	R.Brijder
15:45	Dominic Scalise and Rebecca Schulman/ Emulating Cellular Automata in Chemical Reaction-Diffusion Networks	R.Brijder
16:15	Break 15 min	
16:30	Neil Dalchau, Georg Seelig and Andrew Phillips/ Computational design of reaction-diffusion patterns using DNA-based chemical reaction networks	D.Doty
17:00	Robert Brijder/ Output Stability and Semilinear Sets in Chemical Reaction Networks and Deciders	D.Doty
17:30	Poster Session II	
18:30	Dinner on your own	

Wednesday, September 24

Start Time	Activity	Chair
9:00	Plenary Talk 4 Shawn Douglas/ Nanoscale Construction with DNA	M.Endo
10:00	Katherine Dunn, Frits Dannenberg, Thomas Ouldrige, Marta Kwiatkowska, Andrew Turberfield and Jonathan Bath/ Guiding the folding pathway of DNA origami	M.Endo
10:30	Break 30 min	
11:00	Christophe David, Jonathan Lee Tin Wah and Andre Estevez-Torres/ Folding pathway of DNA nanostructures at the single molecule level	F.Simmel
11:30	John Schreck, Thomas Ouldrige, Liam Shaw, Flavio Romano, Ard Louis and Jonathan Doye/ Single-stranded DNA hairpins primarily promote duplex melting rather than inhibiting hybridization	F.Simmel
12:00	Group Photo	
	Lunch on your own / DNA Steering Comm. Meeting	
13:30	<p>Excursion</p> <p>Course A</p> <p>13:30 Leave Shiran-Hall</p> <p>14:00-16:00 Shunkoin-Temple (Zazen and Tea Ceremony)</p> <p>16:45-17:45 Kiyomizu-dera</p> <p>18:30 Main Hotel</p> <p>Course B</p> <p>13:30 Leave Shiran-Hall</p> <p>14:10-15:40 Toei Kyoto Studio Park</p> <p>16:00-17:00 Kinkaku-ji Temple</p> <p>17:30 Main Hotel</p>	

Thursday, September 25

Start Time	Activity	Chair
9:00	Plenary Talk 5 Anne Condon/ On folding pathways, recycling, and reversible programming	S.Kobayashi
10:00	Lulu Qian and Erik Winfree/ Parallel and scalable computation and spatial dynamics with DNA-based chemical reaction networks on a surface	S.Kobayashi
10:30	Break 30 min	
11:00	Matthew R. Lakin, Rasmus Petersen, Kathryn E. Gray and Andrew Phillips/ Abstract modelling of tethered DNA circuits	N.Jonoska
11:30	Richard Muscat, Jonathan Bath, Mireya Mckee, Phillip Milnes, Rachel O'Reilly and Andrew Turberfield/ An Autonomous Molecular Assembler for Programmable Chemical Synthesis	N.Jonoska
12:00	Lunch	
13:30	Plenary Talk 6 Rhiju Das/ Nucleic acid design rules from a massive open laboratory	A.Conndon
14:30	Oscar Ibarra/ On Decidability and Closure Properties of Language Classes with Respect to Bio-Operations	A.Conndon
15:00	Break 30 min	
15:30	Cody Geary and Ebbe Sloth Andersen/ Design Principles for Single-Stranded RNA Origami Structures	D. Stefanovic
16:00	Yan Du, Yu Sherry Jiang, John Milligan, Bingling Li, Sanchita Bhadra, Yuefeng Rose Wu and Andrew Ellington/ A sweet spot for nucleic acid circuits- Coupling isothermal amplification via nucleic acid circuits to glucometers	D. Stefanovic
16:30	Poster Session III	
17:30	(move to banquet venue)	
19:00	Banquet, Award Ceremony and General Assembly	

Friday, September 26 Molecular Robotics Symposium

Start Time	Activity	Chair
9:30	Open Reception Desk	
10:00	Opening Remark Masami Hagiya	
10:10	Special Talk 1 Ned Seeman/ Molecular Machines Made from DNA	A.Kuzuya
11:10	Special Talk 2 Hiroyuki Asanuma/ Light-powered DNA nanomachine carrying azobenzenes as molecular photon-engine	A.Kuzuya
12:10	Lunch on your own	
13:30	Panel Discussion	S.Murata
15:30	Closig Remark Akihiko Konagaya	