



**2nd ETH Zurich –
The University of Tokyo
Strategic Partnership
Symposium on Science,
Design, Manufacturing and
Innovation**

**16-17 January 2018
ETH Zurich Campus Hönggerberg
Zurich, Switzerland**

Programme

Symposium Programme

Tuesday, 16 January 2018

08:45-09:00 **Opening Remarks (Room HIT J51)**

Jeffrey Bode (ETH, Department of Chemistry)

Hiroaki Suga (UTokyo, Department of Chemistry)

09:00-10:00 **Plenary Lectures (Room HIT J51)**

Hiroaki Suga (UTokyo, Department of Chemistry)
“Toward ribosomal synthesis of all D-peptides”

Didier Sornette (ETH, Department of Management Technology and Economics)
“Economic and wealth growths in modern societies: a scientific approach to diagnose and resume healthy growth”

10:00-10:30 **Coffee Break (Foyer HIT G51)**

10:30-12:30 **Scientific Session A: Chemistry and Physics (Room HIT J51, Chair: Jeffrey Bode)**

Yoko Yamakoshi (ETH, Department of Chemistry)
“Functionalization of buckyball for bioapplication”

Shinichi Fukahori (UTokyo, Department of Chemistry)
“Asymmetry in energy-resolved photoelectron angular distribution of Ar in intense circularly polarized few-cycle laser fields”

Donald Hilvert (ETH, Department of Chemistry)
“Design and evolution of supercharged protein containers”

Ursula Keller (ETH, Department of Physics)
“Transient electric-field-driven dynamics in condensed matter: from Terahertz to Petahertz”

10:30-12:30 **Scientific Session B: Social ICT, Digital Fabrication and System Engineering (Room HIT J52, Chair: Didier Sornette)**

Ryohei Hisano (UTokyo, Social ICT Research Center)
“Graph database approach to social data analysis”

Spencer Wheatley (ETH, Department of Management Technology and Economics)
“Statistical analysis of evolving extreme risks: Nuclear power incidents & Data breaches”

Yusuke Obuchi (UTokyo, Department of Architecture)
“Human-centric digital fabrication”

Russell Loveridge (ETH, NCCR Digital Fabrication)
“Innovation Demonstrator: The DFAB HOUSE”

12:30-13:30 **Buffet Lunch Foyer HIT G51**

13:30-15:30 **Scientific Session A: Chemistry and Physics (Room HIT J51, Chair: Aldo Antognini)**

Yasuhiro Sakemi (UTokyo, Center for Nuclear Study)

“Fundamental physics with laser cooled heavy elements”

Aldo Antognini (ETH, Department of Physics)

“Spectroscopy of muonic atoms”

Wataru Ootani (UTokyo, International Center for Elementary Particle Physics)

“Muon’s rare decays”

Miki Nishimura (UTokyo, Department of Physics) (short talk)

“MEG II experiment”

Manuel Zeyen (ETH, Department of Physics) (short talk)

“The laser system for the measurement of the hyperfine splitting in muonic hydrogen”

13:30-15:30 **Scientific Session B: Social ICT, Digital Fabrication and System Engineering (Room HIT J52, Chair: Volker Hoffmann)**

Volker Hoffmann (ETH, Department of Management Technology and Economics)

“Technologies and Markets – How to Support the Energy Transition?”

Hirokazu Sugiyama (UTokyo, Department of Chemical System Engineering)

“Drug manufacturing and decision-making”

Rainer Schmidt (Roche)

“Role of industry-academia collaborations”

Discussion

15:30-17:00 **Poster Session with Coffee (HIT Foyer G51)**

17:00 Visit to the Arch_Tec_Lab (NCCR Digital Fabrication)
Guided by Russell Loveridge

18:00 *Bus transfer to Dinner*

18:30-21:30 **Conference Dinner**

Restaurant Linde Oberstrass
Universitätsstrasse 91, 8006 Zurich

Wednesday, 17 January 2018

9:00 – 11:00 **Discussion on the continuation of the strategic partnership**
Building HCI, Room F309
(Prof. Jeffrey Bode, Prof. Hiroaki Suga, Dr. Kate Harris, Dr. Rahel Byland)

**Discussions and laboratory visits according to individual agreements
with collaboration partners**

Poster Session (HIT G51, 16 January, 15:30-17:00)

Scientific Session A: Chemistry and Physics

Mirosław Marszałek (ETH Zurich)

“Laser spectroscopy of muonic atoms and nuclear properties”

Solange Emenegger (ETH Zurich)

“Aspects of the search for the neutron electric dipole moment”

Yusuke Azuma (ETH Zurich)

“Versatile Protein Nanocages using Circularly Permuted Subunits”

David Niquille (ETH Zurich)

“Nonribosomal Biosynthesis of Backbone-Modified Peptides”

Moritz Pott (ETH Zurich)

“A Non-Canonical Proximal Heme Ligand Affords an Efficient Peroxidase in a Globin Fold”

Naohiro Terasaka (ETH Zurich)

“Engineering and Directed Evolution of Virus-like Nucleocapsids”

Cathleen Zeymer (ETH Zurich)

“The Enzyme Mechanism of a de novo Designed and Evolved Aldolase”

Moritz Jackl (ETH Zurich)

“Continuous Flow Synthesis of Morpholines and Oxazepanes with Silicon Amine Protocol (SLAP) Reagents and Lewis Acid Facilitated Photoredox Catalysis”

Stéphanie Antunes (ETH Zurich)

“Chemical Biology of IFITM3 to Investigate its Restrictive Activity on Viral Entry”

Dominik Schauenburg (ETH Zurich)

“Hydrogel Preparation using Polyethylene Glycolpotassium Cetyltrifluoroborates (PEG-KAT) and Amine Containingmolecules as Chemical-Cross Linkers”

Tuo Jiang (ETH Zurich)

“Automated, cartridge-based synthesis of N-Heterocycles”

Korinne Liosi (ETH Zurich)

“Water-soluble C60 amphiphile: micelle versus vesicle”

Alessandro Fracassi (ETH Zurich)

“On-particle chemical functionalization of sLDL nanoparticle by a chemoselective ligation method”

Shiori Umemoto (UTokyo)

“The development and the optimization of macrocyclic peptide ligands using a next generation sequencer”

Masanobu Nagano (UTokyo)

“Cyclic peptides binding to anti-Histone H3-P(Ser10) antibody”

Tomohiro Kuroda (UTokyo)

“Post-translational acyl transfer reaction on the backbone of peptides”

Satoru Kobayashi (UTokyo)

“3D survey technology in particle physics”

Rina Onda (UTokyo)

“MPPC - Photon sensing technology in particle physics”

Scientific Session B: Social ICT, Digital Fabrication and System Engineering

Rebecca Westphal (ETH Zurich)

“Agent-based model of financial markets testing the impact of mitigation or exploitation of financial bubbles, for the stability of financial markets”

Andreas Thoma (ETH Zurich)

“Robotic Assembly of Non-standard Spatial Timber Units”

Stefana Parascho (ETH Zurich)

“Multi-Robotic Prefabrication”

Fadri Furrer (ETH Zurich)

“Robotic Construction with Found Material”

Kathrin Dörfler (ETH Zurich)

“In situ fabrication of a Mesh Mould wall for the DFAB HOUSE”

Norman Hack (ETH Zurich)

“Mesh Mould Research Components”

Gioele Casola (UTokyo)

“Real-time process failure prediction leveraging big data analytics for biopharmaceutical drug product manufacturing”

Anicia Zeberli (UTokyo)

“Big data-platform for supporting design and operation of biopharmaceutical decontamination processes”

Yusuke Hayashi (UTokyo)

“Freeze-thaw process design for industrial manufacturing of induced pluripotent stem cells”

Masahiro Yamada (UTokyo)

“Lot-sizing method for sterile drug product manufacturing”

Shuntaro Nozawa, Sofia Iino Cotado, Dominika Demlova, Otto Malcolm Lindstam, Ruta Stankeviciute and Nathalia Barros Abate Rotelli (UTokyo)

“Human-centric digital fabrication”

General Information

Talks

Regular talks are 25 minutes plus 5 minutes for questions. Please keep your time. Short talks are 15 minutes including questions.

Posters

Poster walls and pins for A0 size portrait-orientation posters will be available in the Foyer HIT G51 and are grouped into sessions A and B like the talks. Please set up your poster in the morning of 16 January before the coffee break according to the session your group is attending.

Internet Access

Please connect your device to the WLAN with SSID “public” or “public-5”. When you start the browser you will be redirected to a login page, where you can use the credentials below:

Login: ETHUTokyo
Password: Symposium2018

Hotels

Hotel Bristol, Stampfenbachstrasse 34, 8006 Zurich
Hotel Coronado, Schaffhauserstrasse 137, 8057 Zurich
Hotel Leoneck, Leonhardstrasse 1, 8006 Zurich
Hotel Du Théâtre, Seilergraben 69, 8001 Zurich
Hotel St. Josef, Hirschengraben 64-68, 8001 Zurich

Airport Transfer

From the Airport to the Hotels Bristol, Leoneck, St. Josef and Du Théâtre **by tram Nr 10 Direction Zurich Hauptbahnhof to Zurich Central**. The journey takes approximately 30 minutes:

Tram fare:	1-2 zones	1 hour	CHF 4.30	single ticket
	1-2 zones	24 hours	CHF 8.60	return, valid for 24 hours in the city

From Airport to the Hotel **by Taxi**:

The journey takes 15-20 minutes. Taxi fare about CHF 50.00

Conference Venue

ETH Zurich Hönggerberg Campus
Building HIT
Rooms J51 and J52
Wolfgang-Pauli-Strasse 27
8093 Zurich

See map for directions:

<https://www.ethz.ch/en/campus/locations/zurich-region/hoenggerberg.html>

Access either via ETH Link shuttle bus from underneath the ETH main building in Leonhardstrasse (free of charge) or with Tram 11 or 15 to Bucheggplatz and then Bus 69 to ETH Hönggerberg.

Conference Dinner

A group transfer by bus will get you there from the conference venue.

Restaurant Linde Oberstrass

Universitätsstrasse 91

8006 Zurich

<https://www.linde-oberstrass.ch/>

Emergency contact numbers

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