



UTokyo
FSI
Symposium



3rd ETH Zürich-UTokyo Strategic Partnership Symposium on the UN Sustainable Development Goals and Innovation

January 21-22, 2019

Chemistry Auditorium, School of Science, UTokyo

www.s.u-tokyo.ac.jp/UTokyo_ETHZ/



東京大学
THE UNIVERSITY OF TOKYO

ETH zürich

Symposium Program

Monday January 21, 2019

Chemistry Auditorium
Chemistry Main Building (5F), School of Science

09:00-09:30 Registration

Opening Session (Chair: Prof. Hiroaki Suga)

09:30-09:35 *Welcome Address*

Prof. Hiroyuki Takeda

Dean of the School of Science, UTokyo

09:35-10:00 *Introduction to International Strategy of the University of Tokyo*

Prof. Naoto Sekimura

Vice President, UTokyo

Plenary Session: Entrepreneurship (Chair: Prof Hiroaki Suga)

10:00-11:00 *The Technology Transfer Activities of TODAI TLO "University-Industry Collaborations in Japan"*

Takafumi Yamamoto

President and Representative Director, Todai TLO

11:00-11:05 *Group Photo*

11:05-11:15 *Break*

Session 1: Design/Digital Fabrication (Chair: Assoc. Prof. Yusuke Obuchi)

11:15-11:50 *Digital Fabrication and the 2020 Tokyo Olympics*

Hannes Mayer

Department of Architecture, ETHZ

11:50-12:10 *Puff*

Priya Murugeswaran, Sher Lin Tan, Sofia Iino Cotado

Department of Architecture, UTokyo

12:10-12:45 *Digital Fabrication and the 2020 Tokyo Olympics*

Assoc. Prof. Yusuke Obuchi

Department of Architecture, UTokyo

12:45-14:00 *Lunch*

Session 2: Particle Physics and Innovation (Chair: Prof. Toshinori Mori)

14:00-14:30 *Particles and Other Useful Things*

Prof. Klaus Stefan Kirch
Department of Physics, ETHZ

14:30-14:50 *High-precision Measurements for Testing CP and CPT Symmetry*

Dr. Hiroki Nagahama
Center for Nuclear Study, School of Science, UTokyo

14:50-15:00 *My Tokyo Experience - ETH Exchange Student About Her Stay in Japan*

Rafaela Gsponer
Department of Physics, ETHZ & UTokyo

15:00-15:10 *My PSI Experience - From Observing to Manipulating Muons*

Ryoto Iwai
Department of Physics, ETHZ

15:10-15:20 *Magnetic Shielding for n2EDM*

Solange Emmenegger
Department of Physics, ETHZ

15:20-15:30 *Application of Frontier Optical Technology in Particle Physics Experiment*

Satoru Kobayashi
Department of Physics, UTokyo

Poster Session with Coffee

15:30-17:30 Chemistry Auditorium Foyer

Symposium Reception (by invitation only)

18:00-20:00 Kadoya Sanjo-tei, Sanjo Conference Hall (B1F)

Tuesday January 22, 2019

Chemistry Auditorium
Chemistry Main Building (5F), School of Science

Session 3: Information Technology and Society (Chair: Dr. Ryohei Hisano)

09:15-09:45 *Predicting News Events using a Heterogeneous Information Network*

Dr. Ryohei Hisano

Social ICT Research Center, UTokyo

09:45-10:15 *Unsustainable Growth (Bubbles) in the Bitcoin Market*

Dr. Spencer Wheatley

Department of Management, Technology, and Economics, ETHZ

10:15-10:45 *Promoting Digitalization of Public Transportation: Technology and Social Implementation*

Dr. Masaki Ito

Institute of Industrial Science, UTokyo

10:45-11:00 *Break*

Session 4: Physical Chemistry (Chair: Prof. Kaoru Yamanouchi)

11:00-11:40 *Attosecond Spectroscopy in the Liquid Phase*

Prof. Hans Jakob Wörner

Department of Chemistry and Applied Biosciences, ETHZ

11:40-12:05 *Nonlinear Fourier Transform Spectroscopy of O₂ Using Intense XUV Attosecond Pulse Trains*

Dr. Shinichi Fukahori

Department of Chemistry, UTokyo

12:05-12:30 *Strong-field High-resolution Fourier Transform Spectroscopy of D₂⁺ and CH₃OH⁺*

Dr. Toshiaki Ando

Department of Chemistry, UTokyo

12:30-14:00 *Lunch*

Lunch Meeting on Future Activities (by invitation only)

12:45-13:45 Room 201, Chemistry East Building (2F), School of Science

Session 5: Organic Chemistry and Pharmaceutical Processes (Chair: Prof. Hiroaki Suga)

- 14:00-14:30 *New Chemistry from Strange Microbes*
Prof. Jörn Piel
Department of Biology, ETHZ
- 14:30-14:50 *At the Interface of Primary and Secondary Metabolism – A Terpene Cyclase with Novel Domain Architecture*
Dr. Philipp Moosmann
Department of Aquatic Bioscience, UTokyo
- 14:50-15:20 *Development of Tunable and Selective Protein Modifiers Based on Macrocyclic Peptides*
Assoc. Prof. Yuki Goto
Department of Chemistry, UTokyo
- 15:20-15:50 *Pharmaceutical Process Systems Engineering*
Assoc. Prof. Hirokazu Sugiyama
Department of Chemical System Engineering, UTokyo

Closing Session

- 15:50-16:00 *Closing Remarks*
Prof. Hiroaki Suga
Department of Chemistry, UTokyo
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Poster Session
Monday January 21, 15:30-17:30

Chemistry Auditorium Foyer
Chemistry Main Building (5F), School of Science

Session 1: Design/Digital Fabrication

1. **Priya Murugeswaran, Sher Lin Tan, and Sofia Iino Cotado**
Puff

Session 2: Particle Physics and Innovation

2. **Manuel Zeyen**
Measurement of the Hyperfine Splitting in Muonic Hydrogen
3. **Ryoto Iwai**
Manipulating Muons to Produce a High Brightness Beam
4. **Solange Emmenegger**
Magnetic Shielding for n²EDM
5. **Linghui Liu**
Exploration into Beginning of Universe with Future Linear Collider
6. **Naoki Tsuji**
Detector Challenge for International Linear Collider
7. **Rina Onda**
Search for Lepton Flavor Violation with Ultimate Sensitivity: MEG II Experiment
8. **Atsushi Oya**
Development of Ultra-low Material Fast RPC for Background Suppression in MEG II Experiment
9. **Naoya Ozawa**
Test of the Cs Magnetometer for Near-zero Magnetic Fields at the Paul Scherrer Institute (PSI)

Session 3: Information Technology and Society

10. **Masaharu Matsumoto**
Preliminary Study on the Application of Deep-learning Technique to Solving Partial Differential Equations
11. **Farley Oliveira and Hidefumi Hiraishi**
Graph Orientations and Their Use in Modelling the Physical Sciences

Session 4: Physical Chemistry

12. **Qiqi Zhang**
CEP Dependence of the Dissociative Ionization of Methanol in the Intense Few-cycle Laser Fields
13. **Takuya Matsubara**
Nonlinear Fourier Transform Spectroscopy of Acetylene in Extreme Ultraviolet Region
14. **Takanori Nishi**
Entanglement and Coherence in Photoionization of H₂ by an Ultrashort XUV Laser Pulse
15. **Erik Lötstedt**
Laser-driven Dynamics of H₂⁺ by a Time-dependent Multiconfiguration Method
16. **Youyuan Zhang**
Mechanism of Population Inversion in Laser-driven N₂⁺
17. **Sho Koh**
Momentum Distribution of Protons Ejected from H₂O²⁺ in Ultrashort Intense Laser Fields Obtained by Time-dependent Adiabatic-state Method

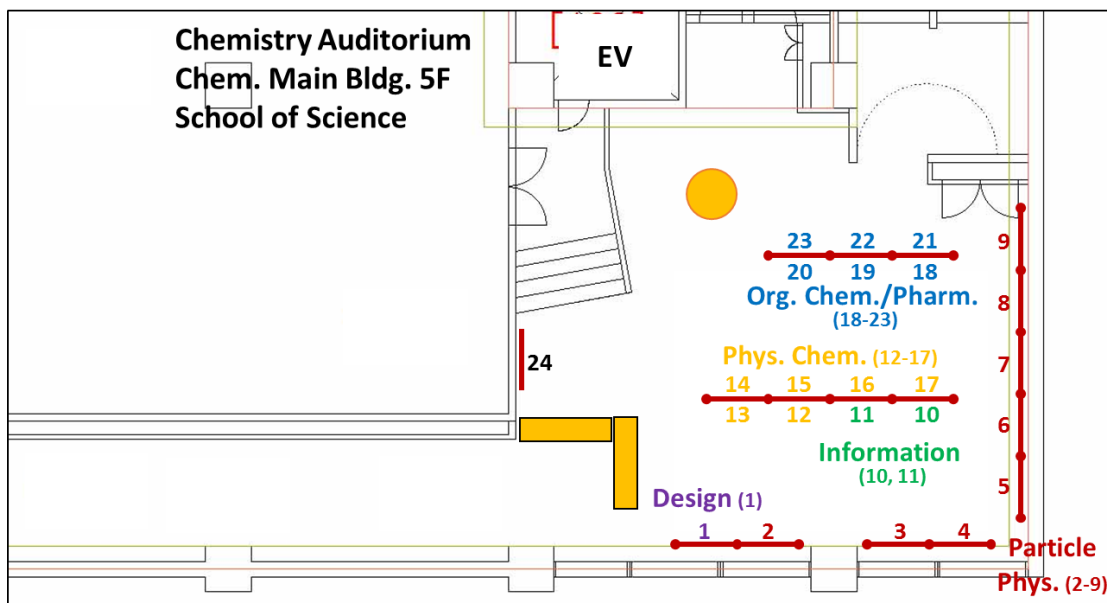
Session 5: Organic Chemistry and Pharmaceutical Processes

18. **Sumika Inoue**
In Vitro Selection of Prenylated Macrocyclic Peptides
19. **Koki Shinbara**
Development of a Methodology for Displaying Head-to-Tail Macrocyclic Peptides by Means of mRNA Display
20. **Yizhen Yin**
Chemical and Ribosomal Synthesis of Topologically Defined Multicyclic Peptides Primed by Selenoether Formation
21. **Kenya Tajima**
Comprehensive Elucidation of Effect of Nascent Peptide Sequences and EF-G Concentration on Incorporation of Prolines in Translation
22. **Masanobu Nagano**
Facile Synthesis of Cyclic Depsipeptides via De Novo Acyl-Transfer Motif
23. **Sara Badr and Hirokazu Sugiyama**
Academic and Industrial Collaboration Between UTokyo and ETH Zurich/Roche
24. **Kate Harris, Satoru Nogami, and Yoshiko Baba**
Managing a Strategic Partnership between UTokyo and ETH Zürich

General Information

Posters

Please **post** your poster by **14:00 on Monday January 21**. Pins and poster boards will be available in the Chemistry Auditorium Foyer from 12:00. Please **remove** your poster by **12:30 on Tuesday January 22**.



Photographs

We will be taking photographs during the symposium for use on the ETH Zürich–UTokyo Strategic Partnership website (https://www.s.u-tokyo.ac.jp/UTokyo_ETHZ/), brochure and other promotional purposes. If you do not want your photograph to be used, please inform the photographer or the staff at the reception desk.

Access

Symposium Venue

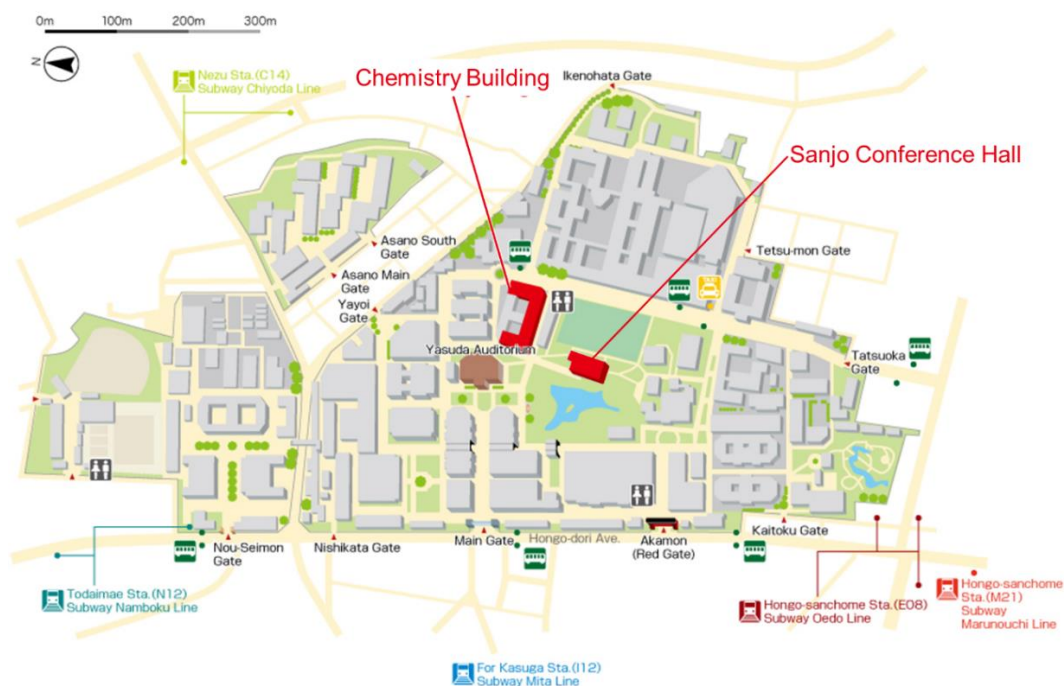
Chemistry Auditorium, Chemistry Main Building (5F)
Hongo 7-3-1, Bunkyo-ku, Tokyo 113-0033

Symposium Reception

Kadoya Sanjo-tei, Sanjo Conference Hall (B1F)
Hongo 7-3-1, Bunkyo-ku, Tokyo 113-0033

Lunch Meeting on Future Activities

Room 201, Chemistry East Building (2F)
Hongo 7-3-1, Bunkyo-ku, Tokyo 113-0033



Internet Access

UTokyo-Guest Wi-Fi

How to Use the Guest Wi-Fi through Self-registration

Overseas guests involved in business or projects at UTokyo are able to use UTokyo-Guest while at the university, in addition to the individual Wi-Fis for meetings as well as eduroam. UTokyo-Guest uses "FREE Wi-Fi PASSPORT", a free Wi-Fi service provided by SoftBank for tourists visiting Japan. Therefore, the registration method for UTokyo-Guest is same as that for FREE Wi-Fi PASSPORT, and that require your mobile phone. You must agree to the terms and conditions of both UTokyo-Guest and FREE Wi-Fi PASSPORT before you begin its use. This service may be suspended, terminated or changed without prior notification.

If you have an international roaming mobile phone :

In order to register, you must select SoftBank as your roaming provider in Japan and call the dedicated phone number. Depending on your global roaming contract, the service may not be available. Therefore, please check whether or not you can select SoftBank in advance by going through the following steps.
For Android, Tap "Settings"-> Tap "Cellular networks"-> Tap "Network operators"-> Tap "SoftBank".
For iPhone, Tap "Settings"-> Tap "Carrier"-> Turn "Automatic" off-> Tap "SoftBank".

1. If the above settings are ok, connect your device to UTokyo-Guest Wi-Fi and open the login page using a web browser.
2. Click "Registration" on the English/Chinese/Korean login page (not the Japanese page as that is only for domestic mobile phone users). Follow the instructions provided, 1) select "SoftBank" as your roaming provider, 2) call the dedicated number*, and 3) get your password from the English/Chinese/Korean audio guidance.
3. Your login ID is your phone number with a country code.
4. Once you have registered, you can connect to UTokyo-Guest and other public FREE Wi-Fi PASSPORT spots in Japan for 2 weeks (SSID: .FREE_Wi-Fi_PASSPORT).

Country code	1
Phone number	XXXXXXXXXX
Login ID	1XXXXXXXXXX
Password	1234

Example: For a USA phone number (international roaming mobile phone)

*A toll-free number. But charges may apply, depending on the mobile provider.

If you have a domestic mobile phone :

The service is also available on domestic mobile phones with numbers beginning with 070, 080, or 090. The service may not be available depending on your particular contract, for instance prepaid contracts, etc.

1. Connect your device to UTokyo-Guest Wi-Fi and open the login page using a web browser.
2. Click "初めての方はこちら" on the Japanese login page (not the English/Chinese/Korean page as those are for international roaming mobile phone users only). Follow the instructions provided, 1) call the dedicated number, and 2) get your password from the Japanese audio guidance.
3. Your login ID is your phone number.

Phone number	XXXXXXXXXX
Login ID	XXXXXXXXXX
Password	1234

Example: For a domestic phone number

For more information, please visit the FREE Wi-Fi PASSPORT official page.
<http://www.softbank.jp/en/mobile/special/freewifi/> (For oversea guests using international roaming mobile phone)
<http://www.softbank.jp/mobile/network/wifispot/wifi-route/freewifi/domestic-operators/> (For domestic users)