

# STRING-MATH 2018



## CONFERENCE PROGRAMME

JUNE 18 - 22, 2018, SENDAI, JAPAN



SIMONS FOUNDATION



Sendai Tourism,  
Convention and  
International Association



[www.tfc.tohoku.ac.jp](http://www.tfc.tohoku.ac.jp)

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### Conference Schedule

	18 Monday	19 Tuesday	20 Wednesday	21 Thursday	22 Friday	23 Saturday
9:00 –	8:45 Opening					10:00 Public Lecture: Ooguri
9:30 –	9:00 Abouzaid	9:00 Grassi	9:00 Mikhaylov	9:00 Nakajima	9:00 Witten	
10:00 –	9:50 Arkani-Hamed	9:50 Harvey	9:50 Moore	9:50 Pantev	9:50 Vafa	
10:30 –	10:40 Coffee break	10:40 Coffee break	10:40 Coffee break	10:40 Coffee break	10:40 Coffee break	
11:00 –	11:20 Barkeshli	11:20 Kapranov	11:20 Morrison	11:20 Rastelli	11:20 Aganagic	
11:30 –	12:10 Lunch	12:10 Lunch		12:10 Lunch	12:10 Lunch	
12:30 –						
13:00 –						
13:30 –						
14:00 –	14:00 Brown	14:00 Keller		14:00 Teschner	14:00 Freed	
15:00 –	14:50 Yamazaki	14:50 Coffee break		14:50 Coffee break	14:50 Coffee break	
15:30 –	15:40 Move to Sakura Hall	15:30 Komargodski		15:30 Toda	15:30 Neitzke	
16:00 –		16:20 Marino		16:20 Cvetic	16:20 Li	
17:00 –	17:00 Gong Show and Posters				17:10 Closing	
18:00 –					17:30 Special Lecture: Yau	
18:30 –						
19:00 –	18:30 Welcome reception			19:00 Banquet		
19:30 –						
20:00 –						



# THE STRING-MATH CONFERENCE

which has been held annually since 2011, aims to enhance interactions between physicists and mathematicians and to stimulate further progress in this interdisciplinary area. The String-Math 2018 Conference is the culmination of a three-month thematic program of TFC, including this conference, and a session with a general public lecture on Saturday June 23, organized jointly with the Tohoku Forum for Creativity, Tohoku University.

(For more information, see  
<http://www.tfc.tohoku.ac.jp/event/4200.html>)

## VENUE

Tohoku University Centennial Hall (Kawauchi Hagi Hall)

- Gong Show:  
Sakura Hall (Katahira Campus)
- Poster Session:  
Tohoku University Centennial Hall (Kawauchi Hagi Hall)
- Public Lecture (in Japanese) :  
TOKYO ELECTRON House of Creativity (Katahira Campus)

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- II. List of Posters
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- V. Social Events
- VI. Excursion
- VII. Emergency Calls

Conference Schedule (back cover)

# I. PROGRAMME

For the updated version and the abstracts, see  
<http://www.tfc.tohoku.ac.jp/event/4200.html>

## Monday, June 18

- |  |   |
|--|---|
| 8:45-9:00                                | Opening address by Motoko Kotani (Tohoku University)  |
| 9:00-9:50                                | Mohammed Abouzaid (Columbia University)<br><i>"Homological mirror symmetry via families of Lagrangians"</i>                                       |
| 9:50-10:40                               | Nima Arkani-Hamed (IAS)<br><i>"Spacetime, quantum mechanics and positive geometry at infinity"</i>  |
| 10:40-11:20                              | Coffee break  |
| 11:20-12:10                              | Maissam Barkeshli (University of Maryland, College Park)<br><i>"Space-time reflection anomalies in (2+1)D topological quantum field theories"</i> |
| 12:10-14:00                              | Lunch   |
| 14:00-14:50                              | Francis Brown (All Souls College, Oxford)<br><i>"Open and closed superstring amplitudes in genus 0 and 1"</i>                                     |
| 14:50-15:40                              | Masahito Yamazaki (Kavli IPMU, University of Tokyo)<br><i>"Integrability as duality"</i>  |
| [Moving to Sakura Hall, Katahira Campus] |   |
| 17:00-18:30                              | Gong show   |
| 18:30-20:30                              | Welcome reception (All participants are invited)  |

## Tuesday, June 19

- |             |   |
|-------------|---|
| 9:00-9:50   | Antonella Grassi (University of Pennsylvania)<br><i>"Terminal singularities and F-theory"</i>           |
| 9:50-10:40  | Jeffrey Harvey (University of Chicago)<br><i>"Hecke relations in rational conformal field theory"</i>   |
| 10:40-11:20 | Coffee break  |
| 11:20-12:10 | Mikhail Kapranov (Kavli IPMU, University of Tokyo)<br><i>"Perverse sheaves and application"</i>         |
| 12:10-14:00 | Lunch   |
| 14:00-14:50 | Christoph Keller (ETH Zurich)<br><i>"Holographic orbifold CFTs"</i>                                     |
| 14:50-15:30 | Coffee break  |
| 15:30-16:20 | Zohar Komargodski (Simons Center)<br><i>"Topological aspects of 2+1 dimensional gauge theories"</i>     |
| 16:20-17:10 | Marcos Marino (University of Geneva)<br><i>"Topological strings, resurgence, and quantum mechanics"</i> |

## Wednesday, June 20

- |             |   |
|-------------|---|
| 9:00-9:50   | Victor Mikhaylov (Simons Center)<br><i>"Teichmüller TQFT, complex Chern-Simons theory and duality"</i>  |
| 9:50-10:40  | Gregory Moore (Rutgers University)<br><i>"On four-manifolds and N=2 supersymmetric field theory"</i>    |
| 10:40-11:20 | Coffee break  |
| 11:20-12:10 | David Morrison (UC Santa Barbara)<br><i>"Abel-Jacobi mappings and mirror symmetry for open strings"</i> |

[Afternoon free]

## II. LIST OF POSTERS

For the updated version and the abstracts, see  
<http://www.tfc.tohoku.ac.jp/event/4200.html>

### Thursday, June 21

9:00-9:50	Hiraku Nakajima (Kavli IPMU, University of Tokyo) <i>"3d <math>N=4</math> QFT and ring objects on the affine Grassmannian"</i>
9:50-10:40	Tony Pantev (University of Pennsylvania) <i>"Mirror symmetry, intersection of quadrics, and Hodge theory"</i>
10:40-11:20	Coffee break
11:20-12:10	Leonardo Rastelli (C. N. Yang Institute for Theoretical Physics, Stony Brook.) <i>"Free field realizations of vertex operator algebras from the Higgs branch"</i>
12:10-14:00	Lunch
14:00-14:50	Jörg Teschner (University of Hamburg and DESY) <i>"Quantum curves, integrability and topological string partition functions"</i>
14:50-15:30	Coffee break
15:30-16:20	Yukinobu Toda (Kavli IPMU, University of Tokyo) <i>"Birational geometry for <math>d</math>-critical loci and wall-crossing in Calabi-Yau 3-folds"</i>
16:20-17:10	Mirjam Cvetič (University of Pennsylvania) <i>"Global constraints on matter representations in <math>F</math>-theory"</i>
19:00-21:00	Banquet (reception starts at 18:30)

### Friday, June 22

#### Special Sessions for celebrating the Anniversaries of CY, TFT and Topological String

9:00-9:50	Edward Witten (IAS) <i>"Open-closed topological gravity in two dimensions"</i>
9:50-10:40	Cumrun Vafa (Harvard University) <i>"Topological strings on compact CY and SCFT's"</i>
10:40-11:20	Coffee break
11:20-12:10	Mina Aganagic (UC Berkeley) <i>"Knot categorification from geometry, via string theory"</i>
12:10-14:00	Lunch
14:00-14:50	Dan Freed (University of Texas at Austin) <i>"Extended topological field theory and the 2-dimensional Ising model"</i>
14:50-15:30	Coffee break
15:30-16:20	Andrew Neitzke (University of Texas at Austin) <i>"Abelianization in complex Chern-Simons theory"</i>
16:20-17:10	Si Li (Tsinghua University) <i>"Semi-infinite Hodge structure: from BCOV theory to Seiberg-Witten geometry"</i>
17:10-17:20	Closing remark by Ron Donagi (University of Pennsylvania)

#### Special Lecture on the Fifth Anniversary of the Tohoku Forum for Creativity

17:30-18:20	Shing-Tung Yau (Harvard University) <i>"Brief history of Calabi-Yau manifold related to string theory"</i>
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### 1) Gong Show and Posters on June 18 at Sakura Hall

- Gong show: 17:00-18:30 (3 min 30 sec for each talk)
- Gong show posters: 18:30-20:30

- Yiwen Pan (Uppsala University/Sun Yat-sen University)  
*"Intersecting 3d mirror symmetry"*
- Xiaomeng Xu (Massachusetts Institute of Technology)  
*"Frobenius manifolds and quantum groups"*
- Jie Gu (Ecole normale supérieure)  
*"Modular solutions to minimal 6d SCFTs, and how to blow up them all"*
- Hong Zhang (Chinese Academy of Sciences)  
*"Supersymmetric Yangian, DIM algebra, and AGT relation"*
- Haoyu Sun (UC Berkeley)  
*"S-duality, quadratic reciprocity, and double Janus configurations"*
- Antonio Sciarappa (KIAS)  
*"Higher qq-characters and S-duality of Wilson loops/surfaces"*
- Andrei Constantin (Uppsala University)  
*"The monodromy group of a two-parameter family of K3 surfaces"*
- Ling Lin (University of Pennsylvania)  
*"Mordell-Weil group and global gauge group of F-theory"*
- Fabio Apruzzi (UNC Chapel Hill & UPenn)  
*"4D gauge theories with conformal matter"*
- Patrick Jefferson (Harvard University)  
*"Geometric classification of 5d SCFTs at fixed rank"*
- Monica Jinwoo Kang (Harvard University)  
*"Mordell-Weil torsion, anomalies, and phase transitions"*
- Yusuke Nakajima (Kavli IPMU, University of Tokyo)  
*"On non-commutative crepant resolutions of some toric rings"*
- Konstantin Aleshkin (SISSA/Landau ITP)  
*"Special geometry on the 101-dimensional moduli space of the quantic threefold"*
- Seyede Maryam Noorbakhsh (Science Beam Institute)  
*"Non-compactness horizon black holes at ultra-spinning limit"*
- Lakshya Bhardwaj (Perimeter Institute for Theoretical Physics)  
*"Turaev-Viro construction of unoriented 3d TFTs"*



## 2) Posters at Centennial Hall

### ■ Group A: June 19 morning – June 20 12:00

- A1. Yiwen Pan (Uppsala University/Sun Yat-sen University)  
*"Intersecting 3d mirror symmetry"*
- A2. Shuichi Yokoyama (YITP, Kyoto University)  
*"Aspects of minimal  $N=4$  Chern-Simons theories"*
- A3. Jie Gu (Ecole normale superieure)  
*"Modular solutions to minimal 6d SCFTs, and how to blow up them all"*
- A4. Haoyu Sun (UC Berkeley)  
*"S-duality, quadratic reciprocity, and double Janus configurations"*
- A5. Yinan Wang (Massachusetts Institute of Technology)  
*"Probing the set of complex 3D bases in 4D F-theory and  $N=1$  SCFT"*
- A6. Alex Takeda (UC Berkeley)  
*"A local-to-global principle for stability conditions on Fukaya categories of surfaces"*
- A7. Benjamin Sung (Northeastern University)  
*"Computing sheaf cohomology on Calabi-Yau hypersurfaces in toric varieties and D-brane instantons"*
- A8. Marco Fazzi (Technion)  
*"Geometric engineering on flops of length two"*
- A9. Patrick Jefferson (Harvard University)  
*"Geometric classification of 5d SCFTs at fixed rank"*
- A10. Rodrigo Barbosa (University of Pennsylvania)  
*"Large  $N$  duality and the M-theory flop"*
- A11. Kohei Kikuta (Osaka University)  
*"Entropy of categorical dynamics"*
- A12. Kenta Shiozawa (Kitasato University)  
*"Worldsheet instanton corrections to five-branes and waves in double field theory"*
- A13. Yusuke Nakajima (Kavli IPMU, University of Tokyo)  
*"On non-commutative crepant resolutions of some toric rings"*
- A14. Sanefumi Moriyama (Osaka City University)  
*"One-point functions in ABJM matrix model"*
- A15. Konstantin Aleshkin (SISSA/Landau ITP)  
*"Special geometry on the 101-dimensional moduli space of the quintic threefold"*
- A16. Seyedeh Maryam Noorbakhsh (Science Beam Institute)  
*"Non-compactness horizon black holes at ultra-spinning limit"*
- A17. Koji Yamaguchi (Tohoku University)  
*"Soft-hair-enhanced entanglement beyond Page curves in a black-hole evaporation qubit model"*

- A18. Lakshya Bhardwaj (Perimeter Institute for Theoretical Physics)  
*"Turaev-Viro construction of unoriented 3d TFTs"*
- A19. Bivudutta Mishra (BITS-Pilani)  
*"String cosmological models in  $f(R,T)$  gravity with hybrid scale factor"*
- A20. Nafiz Ishtiaque (Perimeter Institute for Theoretical Physics)  
*"Chiral rings from localization on spheres"*
- A21. Qingyuan Jiang (Chinese University of Hong Kong)  
*"Categorification of Plücker formula and Rozansky-Witten theory"*
- A22. Seramika Ari Wahyoedi (Institut Teknologi Bandung)  
*"(2+1) Regge calculus: Discrete curvatures, Bianchi identity, and Gauss-Codazzi equation"*
- A23. Kaiwen Sun (SISSA)  
*"Blowup equations and refined topological strings"*
- A24. Sunil Tripathy (Indira Gandhi Institute of Technology)  
*"Cosmological model with dark energy anisotropy"*
- A25. Matthew Young (Chinese University of Hong Kong)  
*"Real 2-representations in mathematics and physics"*
- A26. Le Cong Trinh and Du Thi Hoa Binh (Quy Nhon University)  
*"Handelman's Positivstellensatz for polynomial matrices positive definite on polyhedral"*
- A27. Gauranga Samanta (BITS-Pilani)  
*"Three fluid cosmological models in general relativity"*
- A28. Yasunori Lee (Kavli IPMU, University of Tokyo)  
*"A study of time reversal symmetry of abelian anyons"*
- A29. Jin-Beom Bae (KIAS)  
*"Modular constraints on conformal field theories with currents"*
- A30. Georgios Korpas (Trinity College Dublin)  
*"Surface defects and mock theta functions"*
- A31. Yu-Chien Huang (Massachusetts Institute of Technology)  
*"Most known Calabi-Yau threefolds are elliptic or genus one fibered"*

### ■ Group B: June 21 morning – June 22 12:00

- B1. Xiaomeng Xu (Massachusetts Institute of Technology)  
*"Frobenius manifolds and quantum groups"*
- B2. Hong Zhang (Chinese Academy of Sciences)  
*"Supersymmetric Yangian, DIM algebra, and AGT relation"*
- B3. Antonio Sciarappa (KIAS)  
*"Higher qq-characters and S-duality of Wilson loops/surfaces"*
- B4. Andrei Constantin (Uppsala University)  
*"The monodromy group of a two-parameter family of K3 surfaces"*
- B5. Ling Lin (University of Pennsylvania)  
*"Mordell-Weil group and global gauge group of F-theory"*
- B6. Hongfei Shu (Tokyo Institute of Technology)  
*"Generalized ODE/IM correspondence and its application to  $N=2$  gauge theories"*
- B7. Fabio Apruzzi (UNC Chapel Hill & UPenn)  
*"4D gauge theories with conformal matter"*
- B8. Naotaka Kubo (YITP, Kyoto University)  
*"Two-point functions in ABJM matrix model"*
- B9. Monica Jinwoo Kang (Harvard University)  
*"Mordell-Weil torsion, anomalies, and phase transitions"*
- B10. Fei Yan (University of Texas at Austin)  
*"Line defect Schur indices, Verlinde algebras and  $U(1)_r$  fixed points"*
- B11. Matsuo Sato (Hirosaki University)  
*"Superstring geometry and non-perturbative formulation of superstring theory"*
- B12. Jacob Winding (KIAS)  
*"The art of pestunization"*
- B13. Anuar Alias (University of Malaya)  
*"Spatial-temporal dynamics of wormholes in a braneworld model"*
- B14. Kyoung-ho Cho (Sogang University)  
*"Einstein double field equations"*
- B15. Fakhreh MD Esmaeili (University of Hyderabad)  
*"Effect of scale factor in anisotropic feature of cosmological models"*
- B16. Weiqiang He and Yifan Li (Tsinghua University)  
*"Mathematical research on Landau-Ginzburg model"*
- B17. Hyunmoon Kim (Seoul National University)  
*"The complexified orientation bundle on a moduli space of pseudoholomorphic disks"*

- B18. Chen-Te Ma (National Taiwan University)  
*"String theory with doubled target space"*
- B19. Shah Parth Mukeshbhai (BITS-Pilani)  
*"Stability analysis of the cosmological models in various fluids"*
- B20. Tran Dinh Phung (Quy Nhon University)  
*"Dynamic Picone's identity and its application"*
- B21. Pradyumn Kumar Sahoo (BITS-Pilani)  
*"Magnetized strange quark model with big rip singularity in  $f(R,T)$  gravity"*
- B22. Christophe Wacheux (IBS-CGP)  
*"Convexity of the base space for singular Lagrangian fibrations"*
- B23. Dongwook Choa (Seoul National University)  
*"Globalization of local mirror functor"*
- B24. Aditya Bawane (Sogang University)  
*"Minimal gravity on a disk and open intersection theory"*
- B25. Noriaki Ikeda (Ritsumeikan University)  
*"Constrained systems and Lie algebroids, their BV and BFV formalisms"*
- B26. Hikaru Yamamoto (Tokyo University of Science)  
*"Special Lagrangian and deformed Hermitian Yang-Mills on tropical manifolds"*
- B27. Jumpei Gohara (Tokyo University of Science)  
*"Graph theoretical approach to coherent states of fuzzy membrane"*
- B28. Yuji Sugimoto (Osaka City University)  
*"Refined geometric transition and qq-characters"*
- B29. Masayuki Fukuda (University of Tokyo)  
*"Blow-ups and vertex operator algebras"*
- B30. Craig Lawrie (ITP Heidelberg)  
*"AdS3/CFT2 and F-theory"*



### III. LIST OF PARTICIPANTS (registered by May 15, 2018)

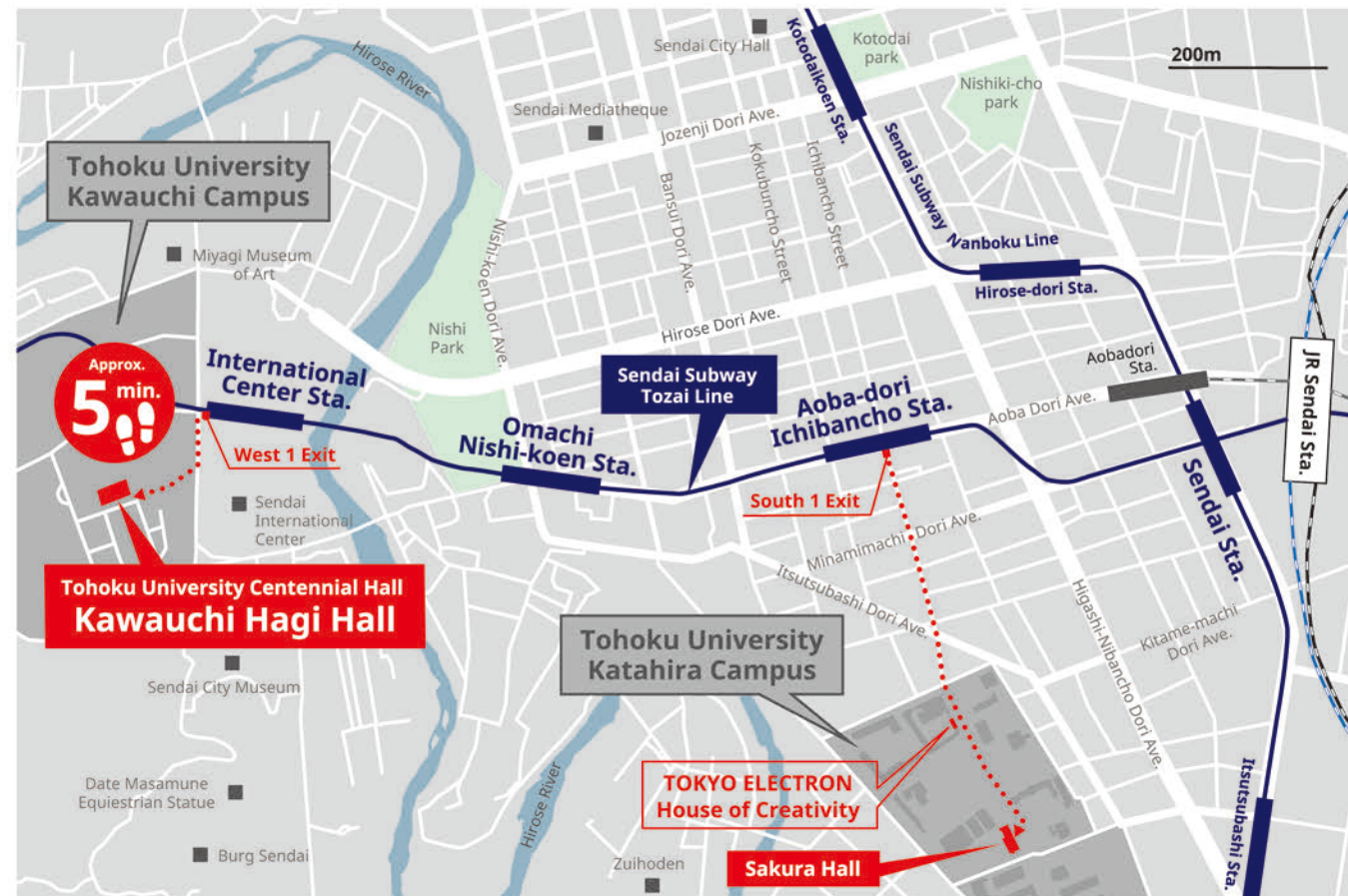
1	Mohammed Abouzaid (Columbia University)	56	Bina Gurung (Tribhuvan University)	111	Hai Lin (Tsinghua University)	166	Alessandro Sfondrini (ETH Zurich)
2	Mina Aganagic (UC Berkeley)	57	Masashi Hamanaka (Nagoya University)	112	Ling Lin (University of Pennsylvania)	167	Parth Shah (BITS-Pilani)
3	Naruhiko Aizawa (Osaka Prefecture University)	58	Nima Arkani-Hamed (IAS)	113	Guglielmo Lockhart (University of Amsterdam)	168	Yota Shamoto (Kavli IPMU, University of Tokyo)
4	Konstantin Aleshkin (SISSA/Landau ITP)	59	Sarah Harrison (McGill University)	114	Raeetz Lorgat (Perimeter Institute for Theoretical Physics)	169	Julius Shaneson (University of Pennsylvania)
5	Anuar Alias (University of Malaya)	60	Jeffrey Harvey (University of Chicago)	115	Chen-Te Ma (National Taiwan University)	170	Kazuma Shimizu (YITP, Kyoto University)
6	Jian Peng Ang (C. N. Yang Institute for Theoretical Physics, Stony Brook)	61	Koji Hasegawa (Tohoku University)	116	Yoshiaki Maeda (Tohoku University)	171	Kenta Shiozawa (Kitasato University)
7	Fabio Apruzzi (UNC Chapel-Hill & UPenn)	62	Tadahiro Hayasaka (Tohoku University)	117	Matt Magill (Uppsala University)	172	Hongfei Shu (Tokyo Institute of Technology)
8	Tomoyuki Arakawa (RIMS, Kyoto University)	63	Shin Hayashi (AIST/Tohoku University)	118	Ping Kwan Man (Waseda University)	173	Jaewon Song (KIAS)
9	Seramika Ari Wahyoedi (Institut Teknologi Bandung)	64	Weiqiang He (Tsinghua University)	119	Jan Manschot (Trinity College Dublin)	174	Lev Spodyneiko (California Institute of Technology)
10	Hidetoshi Awata (Nagoya University)	65	Kentaro Hori (Kavli IPMU, University of Tokyo)	120	Marcos Marino (University of Geneva)	175	Yuji Sugimoto (Osaka City University)
11	Jin-Beom Bae (KIAS)	66	Hiroki Hoshina (University of Tokyo)	121	Yutaka Matsuo (University of Tokyo)	176	Haoyu Sun (UC Berkeley)
12	Rodrigo Barbosa (University of Pennsylvania)	67	Masahiro Hotta (Tohoku University)	122	Victor Mikhaylov (Simons Center)	177	Kaiwen Sun (SISSA)
13	Maissam Barkeshli (University of Maryland, College Park)	68	Yu-Chien Huang (Massachusetts Institute of Technology)	123	Bivudutta Mishra (BITS-Pilani)	178	Benjamin Sung (Northeastern University)
14	Aditya Bawane (Sogang University)	69	Noriaki Ikeda (Ritsumeikan University)	124	Tatsuhiko Misumi (Akita University)	179	Doman Takata (University of Tokyo)
15	Michael Bershadsky (Renaissance Technology)	70	Ivan Ip (Hong Kong University of Science and Technology)	125	Yoshihiko Mitsumatsu (Chuo University)	180	Alex Takeda (UC Berkeley)
16	Marco Bertolini (Kavli IPMU, University of Tokyo)	71	Nafiz Ishtiaque (Perimeter Institute for Theoretical Physics)	126	Reiko Miyaoka (Tohoku University)	181	Ryokichi Tanaka (Tohoku University)
17	Kowshik Bettadapura (Tsinghua University)	72	Katsushi Ito (Tokyo Institute of Technology)	127	Gregory Moore (Rutgers University)	182	Shohei Tanaka (Fukuoka University of Education)
18	Lakshya Bhardwaj (Perimeter Institute for Theoretical Physics)	73	Mi Young Jang (University of Pennsylvania)	128	Anne Moreau (University of Lille)	183	Washington Taylor (Massachusetts Institute of Technology)
19	Sofiane Bouarroudj (New York University Abu Dhabi)	74	Patrick Jefferson (Harvard University)	129	Haruka Mori (Kitasato University)	184	Jörg Teschner (University of Hamburg and DESY)
20	Francis Brown (All Souls College, Oxford)	75	Saebyeok Jeong (C. N. Yang Institute for Theoretical Physics, Stony Brook)	130	Sanefumi Moriyama (Osaka City University)	185	Du Thi Hoa Binh (Quy Nhon University)
21	Sergio Luigi Cacciatori (Universita dell'Insubria)	76	Tuo Jia (Texas A&M University)	131	David Morrison (UC Santa Barbara)	186	Jiahua Tian (Northeastern University)
22	Ursula Carow-Watamura (Tohoku University)	77	Hongliang Jiang (HKUST)	132	Hiraku Nakajima (Kavli IPMU, University of Tokyo)	187	Yukinobu Toda (Kavli IPMU, University of Tokyo)
23	Federico Carta (IFT-UAM/CSIC)	78	Qingyuan Jiang (Chinese University of Hong Kong)	133	Yusuke Nakajima (Kavli IPMU, University of Tokyo)	188	Phung Tran (Quy Nhon University)
24	Sergio Cecotti (SISSA)	79	Seokho Jin (Chung-Ang University)	134	Tohru Nakashima (Japan Women's University)	189	Sunil Tripathy (Indira Gandhi Institute of Technology)
25	Kyoung-ho Cho (Sogang University)	80	Hiroyuki Kamada (Miyagi University of Education)	135	Sungwoo Nam (University of Illinois at Urbana-Champaign)	190	Takuya Tsukioka (Bukkyo University)
26	Dongwook Choa (Seoul National University)	81	Tomokazu Kaneko (Tohoku University)	136	Andrew Neitzke (University of Texas at Austin)	191	Cumrun Vafa (Harvard University)
27	Jaeyoung Choi (POSTECH)	82	Monica Kang (Harvard University)	137	Fabrizio Nieri (Uppsala University)	192	Christophe Wacheux (IBS-CGP)
28	Seongjin Choi (POSTECH)	83	Mikhail Kapranov (Kavli IPMU, University of Tokyo)	138	Simone Noja (Universita' del Piemonte Orientale and INFN)	193	Yinan Wang (Massachusetts Institute of Technology)
29	Andrei Constantin (Uppsala University)	84	Sheldon Katz (University of Illinois at Urbana-Champaign)	139	Seyedeh Maryam Noorbakhsh (Science Beam Institute)	194	Yunfeng Wang (University of Science and Technology of China)
30	Mirjam Cvetič (University of Pennsylvania)	85	Christoph Keller (ETH Zurich)	140	Tadao Oda (Tohoku University)	195	Satoshi Watamura (Tohoku University)
31	HL Dao (National University of Singapore)	86	Ahsan Khan (Rutgers University)	141	Yuji Odaka (Kyoto University)	196	Jacob Winding (KIAS)
32	Mykola Dedushenko (California Institute of Technology)	87	Kohei Kikuta (Osaka University)	142	Kantaro Ohmori (IAS)	197	Edward Witten (IAS)
33	Ron Donagi (University of Pennsylvania)	88	Alex Kinsella (UC Santa Barbara)	143	Hiroshi Ohta (Nagoya University)	198	Guozhen Wu (University of Science and Technology of China)
34	Will Donovan (Tsinghua University)	89	Axel Kleinschmidt (Max Planck Institute for Gravitational Physics)	144	Kazutoshi Ohta (Meiji Gakuin University)	199	Jingxiang Wu (Perimeter Institute for Theoretical Physics)
35	Philippe Durand (CNAM M2N)	90	Kazushi Kobayashi (Chiba University)	145	Hiroshi Ooguri (California Institute of Technology)	200	Xiaomeng Xu (Massachusetts Institute of Technology)
36	Fakherreh MD Esmaeili (University of Hyderabad)	91	Kenichiro Kobayashi (Shizuoka Sangyo University)	146	Domenico Orlando (INFN division of Turin)	201	Itamar Yaakov (Kavli IPMU, University of Tokyo)
37	Wentao Fan (Princeton University)	92	Kenta Kobayashi (University of Tokyo)	147	Yiwen Pan (Uppsala University/Sun Yat-sen University)	202	Kohei Yahiro (University of Tokyo)
38	Bohan Fang (Peking University)	93	Saki Koizumi (Tokyo Institute of Technology)	148	Miłosz Panfil (University of Warsaw)	203	Koji Yamaguchi (Tohoku University)
39	Marco Fazzi (Technion)	94	Zohar Komargodski (Simons Center)	149	Tony Pantev (University of Pennsylvania)	204	Masahiro Yamaguchi (Tohoku University)
40	Dan Freed (University of Texas at Austin)	95	Dan Kondo (Tohoku University)	150	Natalie Paquette (California Institute of Technology)	205	Daisuke Yamakawa (Tokyo University of Science)
41	Toshiaki Fujimori (Keio University)	96	Hitoshi Konno (Tokyo University of Marine Science and Technology)	151	Sarthak Parikh (California Institute of Technology)	206	Hikaru Yamamoto (Tokyo University of Science)
42	Masayuki Fukuda (University of Tokyo)	97	Georgios Korpas (Trinity College Dublin)	152	Nicolo Piazzalunga (Simons Center)	207	Masahito Yamazaki (Kavli IPMU, University of Tokyo)
43	Masahiro Futaki (Chiba University)	98	Motoko Kotani (Tohoku University)	153	Kee-Seng Png (National University of Singapore)	208	Fei Yan (University of Texas at Austin)
44	Akito Futaki (Tsinghua University)	99	Naotaka Kubo (YITP, Kyoto University)	154	Tomas Prochazka (LMU Munich)	209	Takehiko Yasuda (Tohoku University)
45	Matthias Gaberdiel (ETH Zurich)	100	Piotr Kucharski (Uppsala University)	155	Leonardo Rastelli (C. N. Yang Institute for Theoretical Physics, Stony Brook)	210	Shing-Tung Yau (Harvard University)
46	Davide Gaiotto (Perimeter Institute for Theoretical Physics)	101	Masato Kuwata (Chuo University)	156	Susanne Reffert (University of Bern)	211	Hung-Yu Yeh (Academia Sinica)
47	Dongmin Gang (Seoul National University)	102	Tim Large (Massachusetts Institute of Technology)	157	Massimiliano Ronzani (University of Geneva)	212	Jinjing Yi (Rutgers University)
48	Nora Ganter (University of Melbourne)	103	Craig Lawrie (ITP Heidelberg)	158	Pradyumn Sahoo (BITS-Pilani)	213	Shuichi Yokoyama (YITP, Kyoto University)
49	Jan Gerken (Albert-Einstein Institute)	104	Sukjoo Lee (University of Pennsylvania)	159	Kazuhiro Sakai (Meiji Gakuin University)	214	Takahiko Yoshida (Meiji University)
50	Mocho Go (Kavli IPMU, University of Tokyo)	105	Yasunori Lee (Kavli IPMU, University of Tokyo)	160	Akifumi Sako (Tokyo University of Science)	215	Yutaka Yoshida (Kavli IPMU, University of Tokyo)
51	Jumpei Gohara (Tokyo University of Science)	106	Damien Lejay (IBS-CGP)	161	Gauranga Samanta (BITS-Pilani)	216	Matthew Young (Chinese University of Hong Kong)
52	Kiyonori Gomi (Shinshu University)	107	Wolfgang Lerche (CERN)	162	Shin Sasaki (Kitasato University)	217	Seungook Yu (POSTECH)
53	Antonella Grassi (University of Pennsylvania)	108	Si Li (Tsinghua University)	163	Ikuo Satake (Kagawa University)	218	Noriko Yui (Queen's University)
54	Jie Gu (Ecole normale superieure)	109	Wei Li (Chinese Academy of Sciences)	164	Matsuo Sato (Hirotsaki University)	219	Maxim Zabzine (Uppsala University)
55	Jirui Guo (Fudan University)	110	Yifan Li (Tsinghua University)	165	Antonio Sciarappa (KIAS)	220	Hong Zhang (Chinese Academy of Sciences)



## IV. SUMMARY OF RELEVANT INFORMATION

### TRANSPORTATION FROM SENDAI STATION TO CENTENNIAL HALL:

Take the subway (Tozai line) and get off at “Kokusai Center”. From there it is a five minute walk.



### WLAN ACCESS:

You can access the wireless network (eduroam) in Tohoku University for the duration of the conference. If you do not have an eduroam account, we will give you an ID and the password available for WLAN in the conference hall.

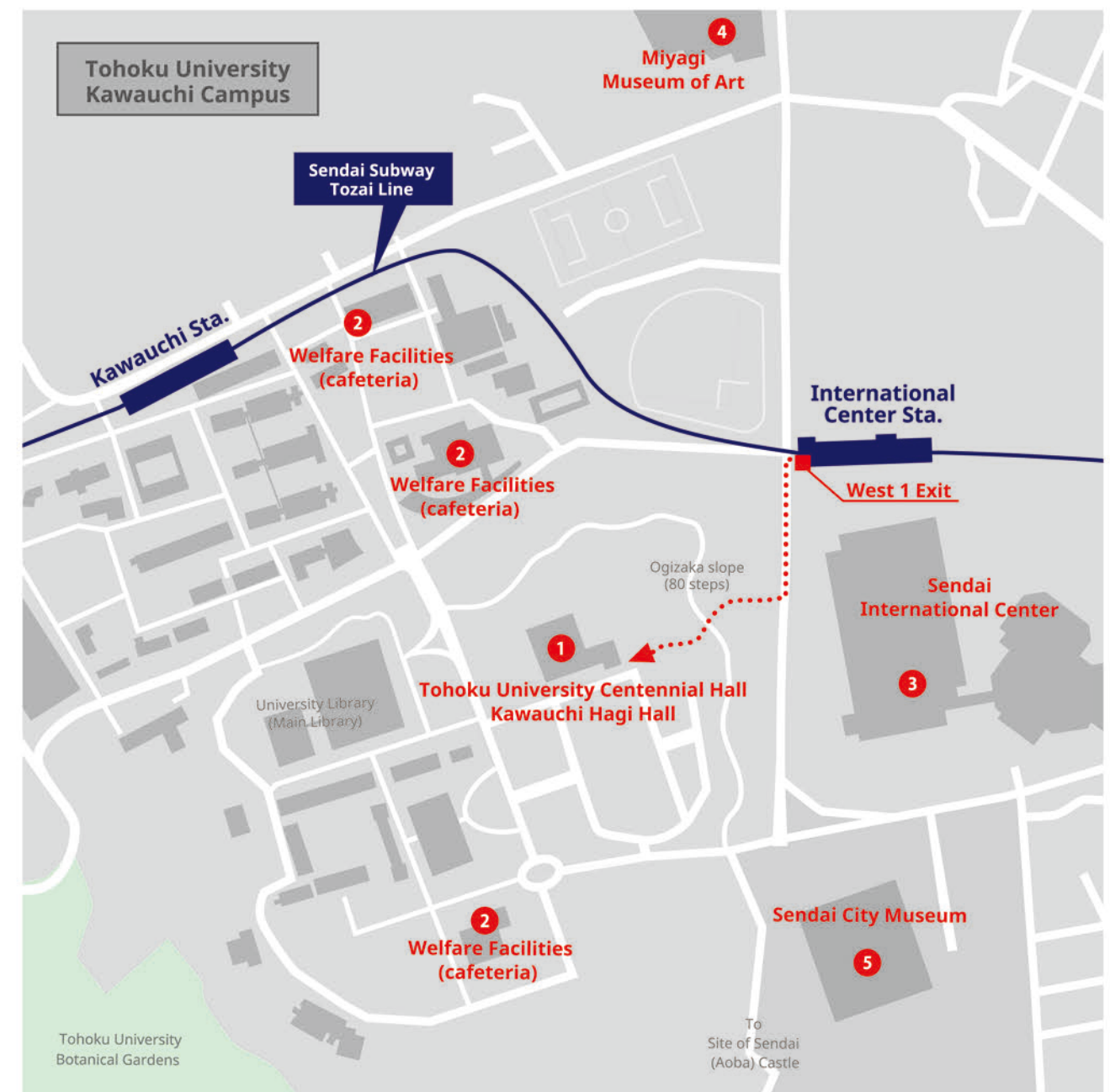
### REFRESHMENTS:

Refreshments will be served daily during coffee breaks (10:40-11:20 & 14:50-15:30).

### LUNCH:

The participants are expected to organize themselves for lunch. Convenient locations are:

- 1 Café Mozart inside Hagi Hall
- 2 Coop Restaurants (Tohoku University, Kawauchi Campus)
- 3 Restaurant inside the International Center
- 4 Café Mozart inside the Miyagi Museum of Art
- 5 Restaurant inside the Sendai City Museum



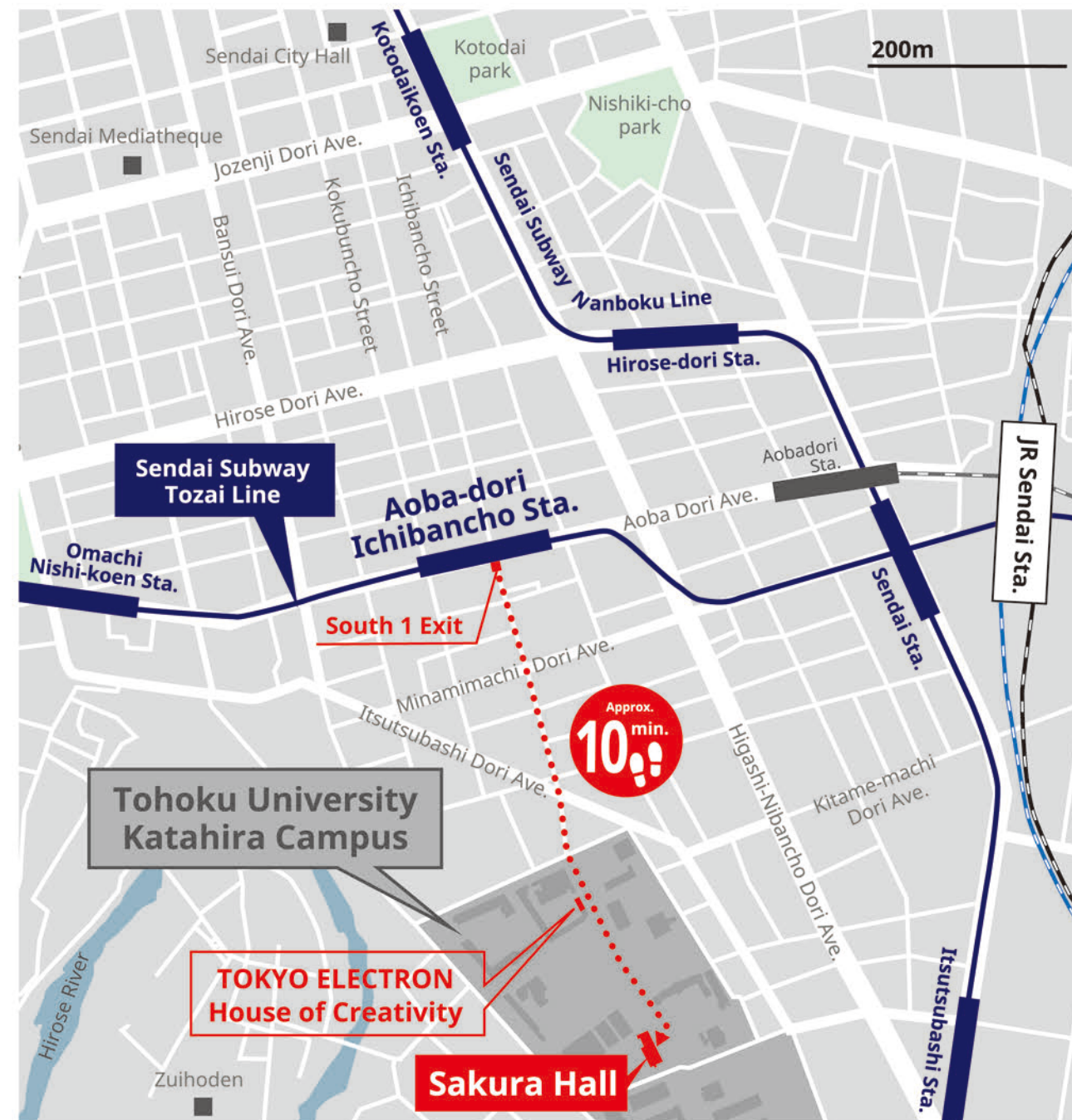


## V. SOCIAL EVENTS

### WELCOME RECEPTION: MONDAY, JUNE 18, 18:30

(all participants are invited)

The welcome reception takes place in the Sakura Hall of the Katahira Campus of Tohoku University. Before the reception, we will have Gong Show and Posters at the Sakura Hall. Please see the map below.



### BANQUET: THURSDAY, JUNE 21, 19:00

(registration participants to option 2 only)

The banquet (reception will start at 18:30) takes place at Sendai Kokusai Hotel. A contribution of 7,000 JPY has to be paid at the registration in advance. Please see the map below.



## VI. EXCURSION

### EXCURSION TO HIRAIZUMI: WEDNESDAY, JUNE 20 12:30

(registration participants to option 1 only)

12:30 Meet at the entrance of Tohoku University Centennial Hall (Kawauchi Hagi Hall)

Visiting places: Hiraizumi Area (World Heritage Place)

1) Chuson-ji

[http://www.chusonji.or.jp/pdf\\_guide/chusonji\\_guide\\_en.pdf](http://www.chusonji.or.jp/pdf_guide/chusonji_guide_en.pdf)

2) Motsu-ji

<http://www.motsuji.or.jp/en/>

We will offer a light lunch (vegetable sandwich or mixed sandwich) on the bus.

### INDIVIDUAL EXCURSIONS:

There are several interesting locations one can visit while staying in Sendai. We recommend the following spots:

Sendai City

Walk or take the “loople” bus

Matsushima

Take JR Senseki line from Sendai Station and get off at “Matsushima Kaigan”

Yamadera

Take JR Senzan line from Sendai Station and get off at “Yamadera”

Akiu Onsen (hot spring)

Take Bus (Miyagi Kotsu Bus terminal no.8) from Sendai Station to “Akiu Onsen”

Sakunami Onsen (hot spring)

Take JR Senzan line from Sendai Station and get off at “Sakunami Onsen”

For further information, as well as other possible tours, we suggest to consult the websites

<http://sendai-travel.jp/> and <http://i-sendai.jp/en/>

There is a Tourist Information Office in the Fujisaki Department Store at Aoba-Dori 1-Bancho (subway station)

## VII. EMERGENCY CALLS

Police: 110

Fire Brigade and Ambulance: 119

Contact Information:

Tohoku Forum for Creativity

Email: [srm18\\_sec@ml.tohoku.ac.jp](mailto:srm18_sec@ml.tohoku.ac.jp)

Phone (internal): 91-6094

Phone (external): +81-(0)22-217-6094 (022-217-6094 in Japan)