

TI-FRIS/FRIS Symposium 2025: Poster Presentations (Materials and Energy)

Day 2: Thursday, February 20, 2025

No.	Presenter	Affiliation	Title	(Title in Japanese)
1	Taichi Goto	RIEC, Tohoku Univ./TI-FRIS Fellow	Fabrication of Heteroepitaxial Magneto-Optical Multilayer Films and Their Application to High-Power Photonic Device Chips	
2	Naoki Kawano	Akita Univ./TI-FRIS Fellow	Development of near-infrared luminescent materials for radiation measurements	
3	Katsuyuki Takahashi	Iwate Univ./TI-FRIS Fellow	Interdisciplinary researches promoted by pulsed power technology and plasma	
4	Takuya Mabuchi	IFS, Tohoku Univ./TI-FRIS Fellow	Molecular Simulations of Artificial Biomolecular Systems	人工生体分子システムの分子シミュレーション
5	Kazutoshi Haga	Akita Univ./TI-FRIS Fellow	Application of Mineral Processing Technology for effective utilization of un-used resources	
6	Takao Oto	Yamagata Univ./TI-FRIS Fellow	Recent development of red-light emitters using nitride-based hybrid nanostructures	
7	Tuan Hung Nguyen	FRIS, Tohoku Univ.	Machine Learning in Quantum Materials Research	
8	Hiroshi Ueno	FRIS, Tohoku Univ.	Bridging Gas-Phase Science and Materials Chemistry: Tailormade Construction of Chemical Species within Highly Inert Nano-scale Cavities	
9a	Tom Welling	FRIS, Tohoku Univ.	Supraparticle pigments for sustainable paints	
9b*	Tom Welling	FRIS, Tohoku Univ.	On-chip structural color pigment formation using microfluidics	
10a	Yuji Saito	FRIS, Tohoku Univ.	Innovative Thruster Research & Development for Space Demonstration	革新的スラスターの宇宙実証に向けた研究開発
10b*	Yuji Saito	FRIS, Tohoku Univ.	Biomass Space Propulsion Systems for Sustainable Space Exploration	持続的な宇宙開発に向けたバイオマス燃焼推進装置の開発
11a	Linda Zhang	FRIS, Tohoku Univ.	Unveiling Hydrogen Dynamics in MOF Frameworks: Insights from Neutron Scattering Studies	
11b*	Linda Zhang	FRIS, Tohoku Univ.	Enhanced Helium Separation Using Mixed-Matrix Membranes: Integration of MOFs with Polymers for Advanced Gas Separation Technologies	
12	Yusuke Hashimoto	FRIS, Tohoku Univ.	Data-Driven Materials Science: Maps and Automation	
13*	Kazuyuki Iwase	Institute of Multidisciplinary Research for Advanced Materials, Tohoku Univ.	Development of Highly Active CO ₂ reduction electrocatalysts by Controlling Substrate and Proton Mobility	基質及びプロトン移動度制御による高活性二酸化炭素還元触媒の創成
14*	Go Yamamoto	Graduate School of Engineering, Tohoku Univ.	Development of crack detection method by using topology optimization	トポロジー最適化を用いた欠陥探傷方法の開発

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TI-FRIS/FRIS Symposium 2025: Poster Presentations (Life and Environments)

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No.	Presenter	Affiliation	Title	(Title in Japanese)
15	Yuta Kudo	FRIS, Tohoku Univ./TI-FRIS Fellow	Exploring Novel Compounds in Nature: Focusing on Natural Toxins and Microbial Hormones	自然界の新規成分を探る：自然毒と微生物ホルモン
16	Pui Ying Lam	Akita Univ./TI-FRIS Fellow	Lignin biosynthesis in model plants	
17	Madoka Ichikawa-Seki	Iwate Univ./TI-FRIS Fellow	Development of a novel in vitro culture system of liver flukes to eliminate bottlenecks in research on fasciolosis	肝蛭症研究のボトルネック解消を目指した新規実験系の創出
18	Sho Kobayashi	Yamagata Univ./TI-FRIS Fellow	Development of a method for identifying ingredients with glutathione-increasing effects	グルタチオン増大効果を持つ化合物の同定方法の開発
19	Toshiharu Ichinose	FRIS, Tohoku Univ.	Immediate early translation of selective genes following neuronal activity	
20	Shinichi Sato	FRIS, Tohoku Univ.	Protein Aggregation Profiling by Chemical Proteomics	ケミカルプロテオミクスによるタンパク質凝集解析
21a	Ken Ikeuchi	FRIS, Tohoku Univ.	Cryo-EM Structural Analysis of Ribosomes in Translational Control	
21b*	Ken Ikeuchi	FRIS, Tohoku Univ.	Visualization of temporal protein complexes using chemical crosslinking and cryo-electron microscopy	
22	Hiroyuki Uechi	FRIS, Tohoku Univ.	The solid-like property of the cell-cell adhesion protein organizes multicellular dynamics	
23	Manabu Bassho-Uehara	FRIS, Tohoku Univ.	Kleptoprotein bioluminescence	盗タンパク質生物発光
24a	Hideaki Matsubayashi	FRIS, Tohoku Univ.	Reconstituting cell motility from scratch	
24b*	Hideaki Matsubayashi	FRIS, Tohoku Univ.	Rational design of novel artificial cytoskeleton and their application to cellular manipulation	
25*	Kanako Bessho-Uehara	Graduate School of Life Sciences, Tohoku Univ.	Identification of plant-derived constraints for determining gall morphology driven by citizen science	

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TI-FRIS/FRIS Symposium 2025: Poster Presentations (Information and Systems)
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No.	Presenter	Affiliation	Title	(Title in Japanese)
26	Kentaro Murata	Iwate Univ./TI-FRIS Fellow	Wireless meets physics, chemistry and biomedical engineering	
27	Hiroaki Hashida	FRIS, Tohoku Univ.	Performance Analysis: Near- / Far- Field Behaviors of Intelligent Reflecting Surface and Metallic Wall	
28	Yuka Fujiki	FRIS, Tohoku Univ.	Analyzing network structures: effects of clique size fluctuations	ネットワーク構造の解析：クリークサイズゆらぎの影響
29	Bin Ho Le	FRIS, Tohoku Univ.	On the principle of quantum-enhanced multiphase metrology under the squeezing effect	

TI-FRIS/FRIS Symposium 2025: Poster Presentations (Device and Technology)
Day 2: Thursday, February 20, 2025

No.	Presenter	Affiliation	Title	(Title in Japanese)
30	Soichiro Tottori	Graduate School of Engineering, Tohoku Univ. /TI-FRIS Fellow	Nanofluidic Iontronic Systems	
31	Tomohito Sekine	Yamagata Univ./TI-FRIS Fellow	Immediate early translation of selective genes following neuronal activity	
32	Yuta Yamane	FRIS, Tohoku Univ./TI-FRIS Fellow	Theoretical study on spin-electric energy conversions	
33	Hiroya Abe	FRIS, Tohoku Univ./TI-FRIS Fellow	Thermo-responsive mussel-inspired underwater adhesives	
34	Yuanyuan Guo	FRIS, Tohoku Univ./TI-FRIS Fellow	Pioneering Biofibertronics Field	
35	Aakanksha Sud	FRIS, Tohoku Univ.	Chiral coupling between magnons and phonons	
36a	Chao Tang	FRIS, Tohoku Univ.	Ultra-fast and sensitivity THz detection based on 2D heterostructures	二次元ヘテロ構造による高速・高感度THz検出
36b*	Chao Tang	FRIS, Tohoku Univ.	Ultra fast THz response in 2D dirac semimetals	二次元ディラック半金属の超高速THz応答
37	Kaoru Hiramoto	FRIS, Tohoku Univ.	Studies on interactions between lipid membranes and biomolecules using electrochemical techniques	電気化学的手法を用いた脂質膜と生体分子の相互作用に関する研究
38*	Takuro Ishii	Graduate School of Biomedical Engineering, Tohoku Univ.	Development of Ultrasound Imaging Apparatus for Rodent's Multi-Organ Blood Flow Visualization	

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TI-FRIS/FRIS Symposium 2025: Poster Presentations (Human and Society)

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No.	Presenter	Affiliation	Title	(Title in Japanese)
39	Xiangdan Piao	Iwate Univ./TI-FRIS Fellow	Human Capital and Pro-environmental Behavior for Sustainable Development	持続可能に向けた人的資本と環境配慮行動
40	Ai Suzuki	Fukushima Univ./TI-FRIS Fellow	Preventing bicycle theft victimization: the impact of signage on bicycle park users' behavior	
41	Yuki Takahashi	Fukushima Univ./TI-FRIS Fellow	Sustainability on Volunteer Probation Officer (HOGOSHI)	保護司制度の持続可能性について
42	Yuta Nakayasu	FRIS, Tohoku Univ./TI-FRIS Fellow	Green Synthesis of Biomass-derived Electrodes	バイオマス由来電極のグリーン合成
43	Kexin Xiong	FRIS, Tohoku Univ.	Mapping the Mental Landscape of Word Processing	
44	Sakura Kiuchi	FRIS, Tohoku Univ.	Intergenerational oral conditions' relationships: exploring the role of sugar intake	
45	Yumi Hamamoto	FRIS, Tohoku Univ.	Do point of views influence our body image perception?	
46a	Izumi Matsudaira	FRIS, Tohoku Univ.	Parent-Offspring Brain Similarities: Insights into Neural Development	親子の類似性から紐解くヒトの脳発達
46b*	Izumi Matsudaira	FRIS, Tohoku Univ.	Unraveling the intergenerational transmission with statistical causal discovery	統計的因果探索による世代間伝達の機序の究明
47*	Kohei Tamura	Center for Northeast Asian Studies, Tohoku Univ.	An Interdisciplinary Study on the Value and Maintenance of "Broken" Cultural Heritage: The Transmission of Memory of Disasters with Digital Technologies	

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TI-FRIS/FRIS Symposium 2025: Poster Presentations (Advanced Basic Science)

Day 2: Thursday, February 20, 2025

No.	Presenter	Affiliation	Title	(Title in Japanese)
48	Naoki Fujita	Hirosaki Univ./TI-FRIS Fellow	Analysis of factors associated with urological disease using big data from the Iwaki Health Promotion Project	岩木健康増進プロジェクトのビッグデータを利用した泌尿器疾患と関連する因子の解析
49	Shigeo Kimura	FRIS, Tohoku Univ./TI-FRIS Fellow	High-energy Gamma-ray and Neutrinos from Interacting Supernovae: A Case for SN 2023ixf	
50	Shogo Nishiyama	Miyagi Univ. of Education /TI-FRIS Fellow	Recognition of the competencies of men and women in various subjects at a junior high school	中学校における男女の各教科における能力の認識
51	Len Itoh	Milbon Co., Ltd./FRIS, Tohoku Univ.	Interdisciplinary Platform for Advanced Health Sensing	
52	Masaki Okumura	FRIS, Tohoku Univ.	Discovery of new reaction field in the endoplasmic reticulum	
53a	Shingo Kanemura	FRIS, Tohoku Univ.	Understanding the mechanism of viral infection suppression by extracellular redox enzyme	
53b*	Shingo Kanemura	FRIS, Tohoku Univ.	Understanding the redox biodefense system to fight various infections	
54	Naoya Kitajima	FRIS, Tohoku Univ.	Simulation of the early universe	
55	Hakuto Suzuki	FRIS, Tohoku Univ.	Resonant inelastic x-ray scattering at NanoTerasu	
56a	Atsushi Tahara	FRIS, Tohoku Univ.	Polycondensation of biomass monomers for sustainability	
56b*	Atsushi Tahara	FRIS, Tohoku Univ.	Total synthesis of ASP 2397; a organic transporter of metals	
57	Sho Fujibayashi	FRIS, Tohoku Univ.	Binary neutron star merger as a production site of heavy elements	連星中性子星合体と重元素の起源

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