The 7th QST International Symposium
“Quantum Technologies towards Harmonious Future”

Dates: 24-25 July, 2024　　Venue: G MESSE GUNMA

Program (Tentative)

Day 1 (Wendnesday, 24 July)

9:00 ～ 10:00	REGISTRATION			
Opening				
10:00 ～ 10:03	Opening Remarks	KAWACHI Tetsuya	Chair of Organizing Committee
10:03 ～ 10:10	Opening Remarks	KOYASU Shigeo	President of QST
10:10 ～ 10:14	Greetings	TBD	Ministry of Education, Culture, Sports, Science and Technology (MEXT)
10:14 ～ 10:18	Greetings	TBD	Gunma Prefectural Government
10:18 ～ 10:22	Greetings	TOMIOKA Kenji	Mayor of Takasaki City
Plenary Session			Chair: OHSHIMA Takeshi (QST, Japan)
10:30 ～ 11:15 Plenary	"Title Undecided"		Jörg WRACHTRUP (University of Stuttgart, Germany)
11:15 ～ 12:00 Plenary	"Title Undecided"		David AWSCHALOM (The University of Chicago, USA)
12:00 ～ 12:15	Photo-Session		
12:15 ～ 13:45	LUNCH		
Session 1 : Quantum Sensing			Chair: SATO Shin-ichiro (QST, Japan)
13:45 ～ 14:15 Invited	"Optically Pumped Solid State Quantum Magnetometers for Space Application"		Andreas GOTTSCHOLL (NASA Jet Propulsion Laboratory, USA)
14:15 ～ 14:45 Invited	"Electrically Detected NV Quantum Sensors"		MORISHITA Hiroki (Tohoku University, Japan)
14:45 ～ 15:15 Invited	"Improvement in Sensitivity in Diamond-based Magnetometry for Biomagnetic Sensing"		SEKIGUCHI Naota (Tokyo Institute of Technology, Japan)
15:15 ～ 15:35	"Quantum Sensing Technology for SiC Device Diagnostics"		YAMAZAKI Yuichi (QST, Japan)
15:35 ～ 16:00	BREAK		
Session 2 : Quantum Computer & ICT			Chair: NARUMI Kazumasa (QST, Japan)
16:15 ～ 16:30 Invited	"A Silicon Vacancy based Distributed Quantum Computing Network in 4H-SiC"		Roland NAGY (Friedrich-Alexander-University Erlangen-Nuremberg, Germany)
16:30 ～ 17:00 Invited	"Diamond-Interfaced Quantum Computing Networks"		KOSAKA Hideo (Yokohama National University, Japan)
17:00 ～ 17:30 Invited	"Towards Photonic Interconnects between Ion Trap Quantum Computers"		TAKAHASHI Hiroki (Okinawa Institute of Science and Technology Graduate University, Japan)
17:30 ～ 17:50	"Quantum Circuit Search using Deep Reinforcement Learning"		DAIMON Shunsuke (QST, Japan)
Poster Session with "Dinner Reception"			
18:00 ～ 20:00	Poster Presentations Light snacks & drinks are available after 18:30.		

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Day 2 (Thursday, 25 July)

Session 3 : Quantum Material		Chair: SAKAI Seiji (QST, Japan)
10:00 ～ 10:30 Invited	"Quantum Photonics in SiC: Scalable Architectures, Multi-Emitter Interactions, and New Hamiltonians"	Daniil LUKIN (Stanford University, USA)
10:30 ～ 11:00 Invited	"Diamond for Quantum Sensing and Imaging"	MIZUOCHI Norikazu (Kyoto University, Japan)
11:00 ～ 11:30 Invited	"Room Temperature Operation of Opto-Spintronic Devices based on III-V Semiconductor Nanostructures"	HIURA Satoshi (Hokkaido University, Japan)
11:30 ～ 11:50	"SALMON and its Applications: First-Principles Computation for Real-Time Electron Dynamics in Quantum Materials"	YAMADA Shunsuke (QST, Japan)
11:50 ～ 13:05	LUNCH	
Session 4 : Quantum Life Science		Chair: KONO Hidetoshi (QST, Japan)
13:05 ～ 13:50 Plenary	"Quantum Sensing using Hybrid Diamond Materials"	Brant GIBSON (RMIT University, Australia)
13:50 ～ 14:20 Invited	"Quantum Biology Phenomena from the Spin-Anisotropic Effect"	KOBORI Yasuhiro (Kobe University, Japan)
14:20 ～ 14:50 Invited	"Title Undecided"	YASUI Takao (Tokyo Institute of Technology, Japan)
14:50 ～ 15:10	"Femtosecond Exciton Dynamics in Light-Harvesting Chromoproteins of Cyanobacteria: Energy Transfer and Quantum Coherence"	TSUBOUCHI Masaaki (QST, Japan)
15:10 ～ 15:30	BREAK	
Session 5 : Panel discussion about "Quantum Technologies for Future"		Chair: TBD
15:30 ～ 16:10	Panelists, discussion topics, etc. are currently being adjusted.	

Closing			
16:15 ～ 16:30	Closing Remarks	HOSHINO Toshihiko	Executive Director of QST