

**CREST “Creation of an Innovative Quantum Technology Platform
Based on the Advanced Control of Quantum States”
The Second Symposium**

Maskawa Hall of Maskawa Building for Education and Research

at Kyoto University

December 7-8, 2017

**Registration is free
Registration Deadline is December 5, 2017 (Tue)**

Program

December 7 (Thurs)

13:00 Y. Arakawa (University of Tokyo)

Opening Remarks

13:10 T. Nishiyama (Director, Office for Quantum Science and Technology, MEXT, Japan)

Greeting

13:20 (Invited Talk) Y. Nakamura (University of Tokyo),

“Macroscopic quantum machines”

14:00 N. Imoto (Osaka University)

“Quantum network with an atomic ensemble and a telecom photon”

14:30 M. Kitagawa (Osaka University)

“Dissolution DNP using triplet electrons towards hypersensitive NMR/MRI”

15:00 Break

15:20 Y. Takahashi (Kyoto University)

“Development of advanced optical lattice quantum simulator by high-level control of cold atoms”

15:50 S. Takeuchi (Kyoto University)

“Research on the efficient generation of the broadband frequency entangled photons and their applications”

16:20 S. Tarucha (RIKEN)

“Improved fidelity of readout and gate operation in spin qubits with quantum dots”

16:50 J. S. Tsai (Tokyo University of Science)

“Photo-based quantum information processing with superconducting artificial atoms”

17:20 Break

17:40-19:40 Poster session and Banquet

December 8 (Fri)

9:30 (Invited Talk) A. Furusawa (University of Tokyo)

“Hybrid quantum information processing: A way for large-scale optical quantum information processing”

10:10 (Invited Talk) E. Giacobino, P. Chomaz, D. Noel (Agence Nationale de la Recherche, France)

“Quantum technologies in France”

10:50 Break

11:00 T. Aoki (Waseda University)

“Nanofiber cavity QED system for scalable optical quantum computation”

11:20 F. Kannari (Keio University)

“Programmable large-scale quantum simulator using wavelength-division multiplexed optical modes”

11:40 H. Kosaka (Yokohama National University),

“Diamond quantum security”

12:00 Lunch Break

13:00 S. Saito (NTT Basic Research Laboratories)

“Quantum sensing using superconducting flux qubits”

13:20 K. Semba (National Institute of Information and Communications Technology)

“Superconducting quantum metamaterial”

13:40 U. Tanaka (Osaka University)

“On-chip ion traps for integrated quantum systems”

14:00 M. Tanaka (University of Tokyo)

“Ferromagnetic quantum heterostructures: creation of functional properties and spintronics device applications”

14:20 Y. Arakawa (University of Tokyo)

Closing Remarks

Web Site: https://www.jst.go.jp/kisoken/crest/en/research_area/ongoing/bunyah28-2.html

Registration

For registration, please visit the following site, and submit your information.

https://form.jst.go.jp/enquetes/quantum_technology2

Organizers

Department of Innovation Research, Japan Science and Technology

Co-organizers

Nanoelectronics Collaborative Research Center, Institute of Industrial Science,
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