# QUANTUM TECHNOLOGY CREATING THE FUTURE!

 $\sim {\rm How}$  collaboration of Japanese and Danish researchers is contributing to current and future innovation  $\sim$ 

Thursday, 12 April 2018

19 March 2018

### Invitation to the world of Quantum technology

The Danish Ministry of Higher Education and Research and the Royal Danish Embassy in Tokyo are pleased to organize this seminar "QUANTUM TEHNOLOGY CREATING THE FUTURE!" in Tokyo, Japan.

Today, technical challenges and social issues cannot be solved by only one country. Technologies such as next processing, data analysis, and cyber security are gaining strong attention among both academia and industries. Japan and Denmark have a long research collaboration history within quantum technology since Yoshio Nishina (Former president of RIKEN) studied at Niels Bohr Institute in Denmark in 1927 and invited Niels Bohr (Nobel Prize Physicist) to RIKEN in 1937. "Quantum Technology" is chosen as a research seminar topic this year because it's an area in which international research collaboration is essential. Carlos Moedas, the Commissioner of Research, Science and Innovation of the European Commission, and Yoshimasa Hayashi, the Minister of the Ministry of Education, Culture, Sports, Science and Technology, Japan agreed in January 2018 to strengthen cooperation between EU and Japan within this area.

The aim of this seminar is to discuss what would be possible and how will our future life look like if the quantum technologies develop thanks to the research collaboration around the world. The invited speakers will give a talk on variety of topics from fundamental research to future applications including tangible examples.

We hope this seminar is inspirational and provides a great match-making environment for talents and key persons from various fields to create new relationship for the start of new projects and accelerate technical development of both countries.

We look very much forward to your participation.

Contact: Akiko Kamigori (Senior Commercial Officer, Royal Danish Embassy) Email: akikam\*\*um.dk (Please change \*\* to @ when sending message)

## TECHNICAL SEMINAR QUANTUM TECHNOLOGY CREATING THE FUTURE!

 $\sim$  HOW COLLABORATION OF JAPANESE AND DANISH RESEARCHERS IS CONTRIBUTING TO THE FUTURE INNOVATION  $\sim$ 

<u>Date</u>

12 April 2018 10:00 – 17:00 (Door open 9:30) (Networking reception: 17:00-18:00)

<u>Venue</u> Ground floor, DNP Gotanda Building Hall 3-5-20 Gotanda, Shinagawa-ku Tokyo 141-8001 <u>Language</u>

English



#### **Program**

\*Speaker and Program may subject to change

TIME	TITLE	SPEAKER
09:30	Registration	
10:00	Opening remarks	Mr. Søren Pind Minister, Danish Ministry of Higher Education and Science

#### AM SESSION: (SPEECH 30 MIN. Q&A 5 MIN.)

Chairperson: Dr. Yoshihisa Yamamoto

Program Manager for Impulsive Paradigm Change through Disruptive Technologies Program (ImPACT) of Council for Science, Technology and Innovation, Cabinet Office, Government of Japan Emeritus Professor, Stanford University Emeritus Professor, National Institute of Informatics

10:05 TBD Dr. Jan W. T   Professor, Head of Niels Bohr In   The University of Cope	homsen nstitute, enhagen
10:40   Optical Lattice Clocks: Seeking for a New Second   Dr. Hidetosh     Professor, Department of Applied   Graduate School of Engineering, The University of Chief Scientist, Katori Quantum Metrology Laboratory	ii Katori Physics, of Tokyo 7, RIKEN
11:15   Hybrid quantum systems based on superconducting circuits   Dr. Yasunobu Nator Science and Tech The University of Team Leader, Center for Advanced Science and Tech The University of Team Leader, Center for Emergent Matter Science	kamura inology, of Tokyo e, RIKEN
11:50 Lunch	

PM SESSION: (SPEECH 30 MIN. Q&A 5 MIN.)

Chairperson: Dr. Yoshihisa Yamamoto Program Manager for Impulsive Paradigm Change through Disruptive Technologies Program (ImPACT) of Council for Science, Technology and Innovation, Cabinet Office, Government of Japan Emeritus Professor, Stanford University Emeritus Professor, National Institute of Informatics

Dr. Kae Nemoto	TBD	13:15
Principles of Informatics Research Division,		
National Institute of Informatics		
ls and forces Dr. Eugene Simon Polzik	Quantum sensing of fields and forces beyond the limits of the Heisenberg uncertainty	13:50
Heisenberg Professor, Centre for Quantum Optics (QUANTOP),		
Niels Bohr Institute, The University of Copenhagen		
in Dr. Tetsuomi Sogawa	Basic research activities in Japanese telecom company: toward quantum information and communication technologies	14:25
ny: Director, NTT Basic Research Laboratories,		
ogies Nippon Telegraph and Telephone Corporation		
	Break	15:00
Dr. Seigo Tarucha	TBD	15:15
Professor, Department of Applied Physics,		
Graduate School of Engineering, The University of Tokyo		
Deputy Director, RIKEN Center for Emergent Matter Science, RIKEN	Depu	
its and Dr. Shigeki Takeuchi	Photonic quantum circuits and quantum metrology	15:50
Professor, Department of Electronic Science and Engineering, Graduate School of Engineering, Kyoto University		
a Better Dr. Charlie Marcus	Using Topology to Build a Better Qubit	16:25
Centre for Quantum Devices and Station Q Copenhagen, Niels Bohr Institute, The University of Copenhagen		
TBD	Closing remarks	16:55
Ministry of Education,		
Culture, Sports, Science and Technology, Japan		

## Networking reception

<u>Venue</u>

2F, DNP Gotanda Building Hall, 3-5-20 Gotanda, Shinagawa-ku Tokyo 141-8001

TIME	TITLE	SPEAKER	
17:00	Registration and Networking		
17:15	Welcome speech		TBD
17:55	Closing speech		TBD
18:00	Close		



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