

## APTQS 2020 program (tentative)

### October 28th, 2020 (Wednesday)

Start/end time in Japan, Korea (UTC+9)	Start time in China, Singapore (UTC+8)	Start time in France, Sweden, Switzerland (UTC+1)	Start time in Washington DC (UTC-4)	Speaker	Affiliation	Title
13:30-13:45	12:30	5:30	0:30			(Opening remarks; Introduction of QIQB by Director Kitagawa)
13:45-14:15	12:45	5:45	0:45	Kelin Gao	CAS, China	The Progress on the Ca <sup>+</sup> ion optical frequency
14:15-14:45	13:15	6:15	1:15	Murray Barret	NUS, Singapore	Development of a Lu <sup>+</sup> multi-ion clock
14:45-15:15	13:45	6:45	1:45	Zehuang Lu	HUST, China	Development of 27Al <sup>+</sup> ion optical clock at HUST
15:15-15:45	14:15	7:15	2:15	Kazuhiro Hayasaka	NICT, Japan	Implementation of novel ion optical clocks
15:45-16:15	14:45	7:45	2:45	Yiheng Lin	USTC, China	Quantum entanglement between an atomic ion and a molecular ion

16:50-17:20	15:50	8:50	3:50	Markus Hennrich	Stockholm U., Sweden	Speeding up a trapped ion quantum processor via Rydberg interaction
17:20-17:50	16:20	9:20	4:20	Kenji Toyoda	Osaka U., Japan	Realizing the system of interacting polaritons using trapped ions
17:50-18:20	16:50	9:50	4:50	Ping-Xing Chen	NUDT, China	Observation of the weak-to-strong transition of quantum measurement in a trapped ion system

**October 29th, 2020 (Thursday)**

Start/end time in Japan, Korea (UTC+9)	Start time in China, Singapore (UTC+8)	Start time in France, Sweden, Switzerland (UTC+1)	Start time in Washington DC (UTC-4)	Speaker	Affiliation	Title
9:00-9:50	8:00	1:00	20:00	Christopher Monroe	UMD/Duke U./IonQ, USA	Full Stack Quantum Computing
9:50-10:20	8:50	1:50	20:50	Kihwan Kim	Tsinghua U., China	Adiabatic quantum computation with trapped ions
10:20-10:50	9:20	2:20	21:20	Dzmitry Matsukevich	NUS, Singapore	Hybrid quantum computations with spin and motional states of trapped ions
10:50-11:20	9:50	2:50	21:50	Yukai Wu	Tsinghua U., China	Toward scalable ion trap quantum computing

13:30-14:00	12:30	5:30	0:30	Jin-Ming Cui	USTC, China	An integrated ion trap apparatus with high optical accessibility for advanced cold atom experiments
14:00-14:30	13:00	6:00	1:00	Taehyun Kim	SNU, Korea	Progress in the development of ion trap system for quantum computing
14:30-15:00	13:30	6:30	1:30	Moonjoo Lee	POSTECH, Korea	Trapped ions coupled to an optical cavity
15:00-15:30	14:00	7:00	2:00	Shau-Yu Lan	NTU, Singapore	Large array of Schrödinger cat states facilitated by an optical waveguide
15:30-16:00	14:30	7:30	2:30	Kali Prasanna Nayak	UEC, Japan	Interfacing individually trapped single atoms to a nanofiber cavity

16:30-17:20	15:30	8:30	3:30	Jonathan Home	ETH Zürich, Switzerland	Error correction of a logical qubit encoded in a trapped-ion oscillator
17:20-18:10	16:20	9:20	4:20	Antoine Browaeys	Institut d'Optique, CNRS, France	Many-body physics with arrays of individual atoms
18:10-18:40	17:10	10:10	5:10	Jaewook Ahn	KAIST, Korea	Quantum annealing in Cayley trees of Rydberg atoms
18:40-19:10	17:40	10:40	5:40	Xiao-Feng Shi	Xidian U., China	Accurate entanglement with neutral Rydberg atoms

**October 30th, 2020 (Friday)**

Start/end time in Japan, Korea (UTC+9)	Start time in China, Singapore (UTC+8)	Start time in France, Sweden, Switzerland (UTC+1)	Start time in Washington DC (UTC-4)	Speaker	Affiliation	Title
9:00-9:30	8:00	1:00	20:00	Wenhui Li	NUS, Singapore	Imaging ions in an atomic gas with Rydberg EIT
9:30-10:00	8:30	1:30	20:30	Le Luo	Sun Yat-sen U., China	To be announced
10:00-10:30	9:00	2:00	21:00	David Wilkowski	NTU, Singapore	Non-Abelian geometric transformations in a cold Fermionic strontium gas
10:30-11:00	9:30	2:30	21:30	Gyu-Boong Jo	HKUST, Hong Kong	Non-Hermitian topological matter in an atomic quantum simulator
11:00-11:30	10:00	3:00	22:00	Kai Dieckmann	NUS, Singapore	Singlet Pathway to the Ground State of Ultracold Polar Molecules
11:30-12:00	10:30	3:30	22:30			(Discussions and closing remarks)