

Program of Oral Sessions

December 1 (Tue)

13:00-13:10 Opening

Session A Chair: Kohzo Hakuta

13:10-14:00 Kerry Vahala, *California Institute of Technology, USA*

[Plenary] Soliton frequency comb on a chip

14:00-14:40 Takasumi Tanabe, *Keio University, Japan*

Nonlinear control in optical microcavity systems: Switching and Kerr comb generation in a WGM cavity

14:40-15:00 Coffee Break

Session B Chair: Limin Tong

15:00-15:40 Lan Yang, *Washington University in Saint Louis, USA*

Whispering-gallery-mode resonators and their applications: from nanoscale measurement to parity-time symmetry

15:40-16:20 Qinghai Song, *Harbin Institute of Technology, China*

Lasing actions and optical switching in microcavities

16:20-17:00 Muhan Choi, *Kyungpook National University, Korea*

Microcavity, transformation optics, and metamaterial

17:00-17:10 Coffee Break

Session C Chair: Takao Aoki

17:10-17:50 Oliver Benson, *Humboldt University of Berlin, Germany*

Cavity-enhanced functionality of solid-state quantum emitters for applications in quantum information

17:50-18:30 Shigeki Takeuchi, *Kyoto University, Japan*

Nano optical fibers with built-in microcavities for photonic quantum information

December 2 (Wed)

Session D Chair: Takahisa Harayama

9:00-9:50 A. Douglas Stone, *Yale University, USA*

[Plenary] Fundamental science and applications of chaotic micro-cavities

- 9:50-10:30 Susumu Shinohara, *NTT Communication Science Labs., Japan*
Compact chaotic laser with a two-dimensional external cavity for delayed optical feedback
- 10:30-10:50 Group Photo : Coffee Break
- Session E Chair: Hui Cao
- 10:50-11:30 Chil-Min Kim, *Daegu Kyeongbuk Institute of Science and Technology, Korea*
Ultrahigh-Q microcavity with unidirectional emission
- 11:30-12:10 Satoshi Sunada, *Kanazawa University, Japan*
Synchronization phenomena in microlasers
- 12:10-12:50 Jan Wiersig, *Otto-von-Guericke University Magdeburg, Germany*
Asymmetric backscattering of light in optical microcavities
- 12:50-14:00 Lunch Break
- Session F Chair: Frank Vollmer
- 14:00-14:40 Andrew Wing-On Poon, *Hong Kong University of Science and Technology, China*
Nanoparticle-induced coupling disorders in coupled-resonator optical waveguides for biosensing applications
- 14:40-15:20 Lei Xu, *Fudan University, China*
High Q whispering gallery mode micro bubble resonators and applications
- 15:20-15:50 Jason Smith, *University of Oxford, UK (Contributed)*
Progress in open microcavities fabricated using focused ion beam milling
- 15:50-16:10 Coffee Break
- Session G Chair: Lan Yang
- 16:10-16:50 Frank Vollmer, *Max Planck Institute for the Science of Light, Germany*
Exploring the nanoscale dynamics of molecular systems with optical microcavities
- 16:50-17:30 Yun-Feng Xiao, *Peking University, China*
Raman lasing dynamics in split-mode microcavity and single-nanoparticle detection
- 17:30-18:00 Beibei Li, *The University of Queensland, Australia (Contributed)*
Ultrasensitive and broadband magnetometry with cavity optomechanics
- 18:00-19:30 Poster Session

December 3 (Thu)

- Session H Chair: Martina Hentschel
9:00-9:50 Kyungwon An, *Seoul National University, Korea*
[Plenary] Investigation of lasing efficiency near an exceptional point in an asymmetric deformed microcavity
9:50-10:30 Stefan Rotter, *Vienna University of Technology, Austria*
Curious physics with non-Hermitian micro-cavities
10:30-10:50 Coffee Break
- Session I Chair: Jan Wiersig
10:50-11:30 Jung-Wan Ryu, *Institute for Basic Science, Korea*
New phenomena of quantum chaos in microcavities
11:30-12:10 Martina Hentschel, *Technical University of Ilmenau, Germany*
Ray-wave correspondence in optical microcavities: Triangular microlasers and semiclassical corrections at curved interfaces
12:10-12:50 Sang-Wook Kim, *Pusan National University, Korea*
Localization of open quantum chaotic systems
12:50-14:00 Lunch Break
- Session J Chair: Stefan Rotter
14:00-14:40 Takehiro Fukushima, *Okayama Prefectural University, Japan*
Selective excitation of spatial modes in quasi-stadium microcavity laser diodes
14:40-15:20 Hui Cao, *Yale University, USA*
Effects of rotation on optical microcavity emission
15:20-15:40 Coffee Break
- Session K Chair: Oliver Benson
15:40-16:10 Alfredo Rueda and Harald G. L. Schwefel, *Max Planck Institute for the Science of Light, Erlangen, Germany (Contributed)*
Making microwaves visible: Nonlinear mixing in crystalline WGM resonators
16:10-16:50 Masaaki Ashida, *Osaka University, Japan*
Single-crystalline microspheres with high sphericity fabricated by laser ablation in superfluid helium
16:50-17:30 Oliver Wright, *Hokkaido University, Japan*
Watching waves confined in phononic cavities

18:00-20:00 Banquet

December 4 (Fri)

Session L Chair: Yun-Feng Xiao

9:00-9:50 Kohzo Hakuta, *University of Electro-Communications, Japan*

[Plenary] Cavity QED on an optical nanofiber using micro/nano-photon-crystal structures

9:50-10:30 Takao Aoki, *Waseda University, Japan*

Cavity QED with a trapped single atom and an all-fiber cavity

10:30-10:50 Coffee Break

Session M Chair: Muhan Choi

10:50-11:30 Limin Tong, *Zhejiang University, China*

Coupling a gold nanoparticle with a microfiber microcavity

11:30-12:10 Keiji Sasaki, *Hokkaido University, Japan*

Nano-sized whispering gallery modes of designed plasmonic structures

12:10-12:20 Closing

12:30-17:30 Excursion