

# Technical Program

29th June 2019

New Century International Auditorium

Time	Speaker name	Title of presentation	Session Chair
8:40-8:50		Introduction of distinguished guests	Ying Ding
8:50-9:00	John Marsh	Welcome speech	
9:00-9:45	John Marsh (Keynote)	Photonic integration for the cloud: a revolution in the communication and storage of data.	
9:45-10:25	Bocang Qiu (Keynote)	Design and manufacture of high power semiconductor lasers	
10:25-10:50	Group photo and Tea break		
10:50-11:25	Keith Wilcox (Invited)	Recent Advances in Semiconductor Disk Lasers	Nelson Sze-Chun Chan
11:25-11:55	Yuanyao Lin (Invited)	Modelling the coherent modal interactions in Q-switched optical vortex lasers	
11:55-12:25	Efrat Raz Moyal (Invited)	Scribeless Cleaving for Substrate Downsize, Singulate and Cross section - Cleanroom Compatible	

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Session 1 and 2

Lecture Hall 01

	Time	Title of presentation and authors	Session Chair
S1-1	13:30-14:00	Advances in Biophotonics (to be confirmed) Kaige Wang (Invited)	Ce Zhang
S1-2	14:00-14:30	Real-time signal processing with graphics processing unit and hash table based logarithm calculation in swept source optical coherence tomography Jun Zhang (Invited)	
S1-3	14:30-15:00	AlPcS-loaded gold nanobipyramids with high two-photon efficiency for photodynamic therapy in vivo <u>Jun Liu</u> , Jing Wang, Xiao Xiao, Jiangfang Wang, Xiaolu Zhuo (Invited)	
S1-4	15:00-15:30	Multi-channel brain neural signal sensing detection system Tao Chen (Invited)	
	15:30-16:00	Tea break	
S2-1	16:00-16:30	NF-kB nuclear localization induced chromatin and DNA structure reorganization (to be confirmed) Ce Zhang (Invited)	Jun Zhang
S2-2	16:30-17:00	Label-free molecular imaging of biomedical samples with multivariate analysis method Shuang Wang (Invited)	
S2-3	17:00-17:15	Effect of fluorescence quenching of Coumarin 102 in	

		405nm/532nm CW-STED Wenxuan ZHAO, Wei ZHAO, Chen ZHANG, Xiaoqiang FENG, Haiyun QIN, Guiren WANG, and Kaige WANG	
S2-4	17:15-17:30	Multi-wavelength Yb-doped Fiber Laser <u>Kaile Wang</u> , Zengrun Wen, Baole Lu, Xinyuan Qi, Jintao Bai	
S2-5	17:30-17:45	To be determined	

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Session 3 and 4

Lecture Hall 02

	Time	Title of presentation and authors	Session Chair
S3-1	13:30-14:10	Photonic Integrated Circuits as Terahertz Generation Sources <u>Lianping Hou</u> , John H. Marsh (Invited)	Charlie Ironside
S3-2	14:10-14:40	Versatile Photonic Microwave Generation Using Feedback and Injection Dynamics of Semiconductor Lasers Jia-Xin Dong and <u>Sze-Chun Chan</u> (Invited)	
S3-3	14:40-15:10	Ultra-bright single photon and entangled photon sources based on quantum dots in broadband photonic nanostructures <u>Juntao Li</u> , Yuming Wei, Beimeng Yao, Ying Yu, Jin Dong Song, Saimon Filipe Covre da Silva, Marcelo Davanço, Jake Iles-Smith, Kartik Srinivasan, Armando Rastelli, Jin Liu, and Xue-Hua Wang (Invited)	
S3-4	15:10-15:30	Low noise quantum dot mode locked lasers directly grown on a CMOS compatible silicon substrate <u>S. Liu</u> , J. Norman, A. Gossard, and J. Bowers	
	15:30-16:00	Tea break	
S4-1	16:00-16:30	Micro-LED’s history, current progress and future trends Zheng Gong (Invited)	Lianping Hou
S4-2	16:30-16:55	Micro-LED Array (to be confirmed) Weiling Guo (Invited)	
S4-3	16:55-17:20	Progress of GaN-based blue and green laser diodes <u>Jianping Liu</u> , Aiqing Tian, Lei Hu, Xiaoyu Rei , Liqun Zhang, Shuming Zhang, Deyao Li, Hui Yang (Invited)	
S4-4	17:20-17:45	Optically pumped InGaN/GaN multiple quantum wells laser diodes selectively grown on Si (111) substrates Xiaobiao Han, Yuebo Liu, Yuan Ren, Yaqiong Dai, Longkun Yang, Wanqing Yao, Jieying Xing, Zhisheng Wu, Yang Liu, Baijun Zhang (Invited)	

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Session 5 and 6

Lecture Hall 01

	Time	Title of presentation and authors	Session Chair
S5-1	9:00-9:30	High Performance Single Crystalline Perovskite Optoelectronic Devices Yanxia Cui (Invited)	Fei Gao
S5-2	9:30-10:00	Perovskite – a Wonder for Photovoltaic & Optoelectronic Applications <u>Shengzhong</u> (Frank) Liu, Dong Yang, Yucheng Liu, Kui Zhao, Zhiwen Jin (Invited)	
S5-3	10:00-10:30	Charge Photogeneration and Recombination Processes in Polymer Solar Cells <u>Wei Zhang</u> , Arkady Yartsev (Invited)	
	10:30-10:50	Tea break	
S6-1	10:50-11:20	Nanoanalysis of optoelectronic devices using Focused Ion Beam microscopy combined with time of flight secondary ion mass spectrometry <u>C. N. Ironside</u> and W. D. A. Rickard (Invited)	Xinlong Xu
S6-2	11:20-11:50	Charge carrier recombination in semiconductors <u>Arkady Yartsev</u> , Wei Zhang, Pierre-Adrien Mante, Xiaojun Su, Xianshao Zou, Magnus Borström (Invited)	
S6-3	11:50-12:20	Improvement of the properties of Cu oxide film <u>Fei Gao</u> , Rongrong Gao, Hao Liu, Zhou Yang, Xiaodong Hua, Xin Wu, and Shengzhong (Frank) Liu (Invited)	

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Session 7 and 8

Lecture Hall 02

	Time	Title of presentation and authors	Session Chair
S7-1	9:00-9:30	Super-Channel Technology for Coherent Optical Fiber Communication System (to be confirmed) Yuan Shi (Invited)	Zhihong Liu
S7-2	9:3010:00	Design of a hybrid vertical cavity laser <u>Anjin Liu</u> , Bo Yang (Invited)	
S7-3	10:00-10:30	Photonic Integration of InP-based few-mode devices <u>Dan Lu</u> and Lingjuan Zhao (Invited)	
	10:30-10:50	Tea break	
S8-1	10:50-11:20	Highly reliable ultrafast fiber lasers and theirs applications <u>Zhiguo Lv</u> , Zhi Yang, Feng Li, Qianglong Li, Xiaojun Yang, Yishan Wang, and Wei Zhao (Invited)	Bocang Qiu
S8-2	11:20-11:40	To be determined Lei Hou	
S8-3	11:40-11:55	Narrow bandwidth Q-switched fiber laser based on unpumped Er-doped fiber	

		<u>Zengrun Wen</u> , Kaile Wang, Baole Lu, Xinyuan Qi, and Jintao Bai	
S8-4	11:55-12:05	The generation of chirality controllable femtosecond LG01 vortex beam <u>Shulin Zhang</u> , Guoying Feng, Sha Wang, Shouhuan Zhou	
S8-5	12:05-12:20	High Linearity Fiber Temperature Sensor Based on DSSMS Fiber Structure <u>Jianchang Tan</u> , Guoying Feng, Shulin Zhang	

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Session 9 and 10

Lecture Hall 02

	Time	Title of presentation and authors	Session Chair
S9-1	14:30-15:05	High Brightness Diode lasers (to be confirmed) Cunzhu Tong (Invited)	Keith Wilcox
S9-2	15:05-15:25	Modeling of InP-Based Coupled Cavity Semiconductor Snail Laser Diodes <u>Xing. Dai</u> , Jack. Mulcahy, Frank. H. Peters	
	15:25-15:50	Tea break	
S10-1	15:50-16:20	THz Technology for Two-dimensional Materials <u>Xinlong Xu</u> , Chuan He, Yuanyuan Huang, Lipeng Zhu (Invited)	Arkady Yartsev
S10-2	16:30-16:55	Fast and broadband photoresponse of few-layer GeSe field-effect transistor <u>Hongquan Zhao</u> , Yuhui Yang, Dahua Zhou, Xuan Shi, Yuzhi Li, Chunxiang Wang (Invited)	
S10-3	16:55-17:10	Enhanced photoresponsivity in carbon quantum dots-coupled graphene/silicon Schottky-junction photodetector <u>Xiaoxu CHEN</u> , Chao YANG, Hao ZHOU, Guoying FENG, and Shouhuan ZHOU	

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Session 11 and 12

Lecture Hall 02

	Time	Title of presentation and authors	Session Chair
S11-1	9:00-9:30	Terahertz Detectors Based on GaN High Electron Mobility Transistors <u>Zhihong Liu</u> , Haowen Hou, Jinghua Teng, Tomás Palacios, and Soo-Jin Chua (Invited)	Baijun Zhang
S11-2	9:30-10:50	Electrical/optical modulation of Mm-wave/THz resonant tunneling diode transmitter <u>Jue Wang</u> , Joana S. Tavares, Abdullah Al-khalidi, Jose M. L. Figueiredo, Luis M. Pessoa, and Edward Wasige	
S11-3	10:00-10:15	Spectral Linewidth Reduction of Quantum Cascade Lasers by Strong Optical Feedback	

		<u>B. B. Zhao</u> , X. G. Wang, and C. Wang	
S11-4	10:15-10:30	High sensitivity refractive index measuring instrument based on laser heterodyne interference <u>Xi Ding</u> , Guoying Feng, Shouhuan Zhou	
	10:30-10:50	Tea break	
S12-1	10:50-11:20	Optical dual-beam lithography (ODBL) for nanofabrication: challenges and applications Yaoyu Cao (Invited)	Hongquan Zhao
S12-2	11:20-11:35	Interactions between nanoparticles and polymers in the diffusion boundary layer during freezing colloidal suspensions <u>Jiaxue You</u> , Jincheng Wang, Lilin Wang, Zhijun Wang	
S12-3	11:35-11:50	Gradational pavement cracks segmentation using FIS <u>Amna Khatoon</u> , Asad Ullah, Zhaoyun Sun, Ishfaq Ahmad	
S12-4	11:50-12:05	To be determined <u>Asad Ullah</u> , Amna Khatoon, Zhaoyun Sun, Ishfaq Ahmad	

All Poster presenters should prepare electronic files for electronic display board in advance.

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Poster Session 1 and 2

Lecture Hall 02

	Time	Title of presentation and authors
P1-P10	13:40-14:20	To be determined
P11-P20	17:10-18:00	To be determined