

Program of the
会议日程

**10th Sino-German Joint Symposium on
Opto- and Microelectronic Devices and Circuits
(SODC 2018)**

**第十届中德双边光电子与微电子器件和电路研讨会
(SODC 2018)**

Monday, Sept 17th – Wednesday, Sept. 19th

Technical Sessions

Technical Sessions will take place in the room “Berlin 1”

We would like to welcome you to the “10th Joint Sino-German Symposium on Opto- and Microelectronic Devices and Systems” (SODC) taking place from the 16th to the 20th of September. This year’s symposium features 46 invited contributions from speakers from China, Germany, the USA and Switzerland. We hope that the conference will bring some new insights and allow you to make some new ties in the photonics and microelectronics communities.

欢迎您参加9月16日至20日举行的“第十届中德双边光电子与微电子器件和电路研讨会”（SODC）。今年的研讨会将有来自中国，德国，美国和瑞士的46位受邀者参与。我们希望此次会议能够带来一些新的见解，并且能让您在光电子和微电子领域建立新的联系。

*Thank you very much for your participation.
非常感谢您的参与。*

Jeremy Witzens and Yong-Zhong Xiong, General Chairs

Monday, Sept. 17th 2018
2018 年 9 月 17 日, 星期一

Session MM-A: Materials for Nanophotonics I (8:45 – 10:25)

星期一上午-上：纳米光子学材料 I

Session Chair: Dan Buca, Forschungszentrum Jülich

No.	Time	Presenter	Institution	Topic
	08:35 - 08:45	Jeremy Witzens, Yong-Zhong Xiong	RWTH Aachen University, Nanjing University of Science and Technology	Welcome by the Symposium Chairs
1	08:45 - 09:10	Lemme, Max	Chair of Electronic Devices, RWTH Aachen University & AMO GmbH 电子设备讲席, 亚琛工业大学 & AMO 有限责任公司	Graphene and Transition Metal Dichalcogenide-based Photodiodes 基于石墨烯和过渡金属二硫化物的光电二极管
2	09:10 - 09:35	Zhang, Yong-Lai	State Key Laboratory of Integrated Optoelectronics, Jilin University 综合光电子国家重点实验室, 吉林大学	Laser reduction and structuring of GO for developing graphene-based functional devices 用于开发基于石墨烯的功能器件的GO的激光还原和结构化
3	09:35 - 10:00	Müller, Tobias	Fraunhofer-Institut für Produktionstechnologie (IPT) 弗劳恩霍夫制造技术研究所	Scalable precision assembly processes of (fiber)optical systems on a flexible machine platform 一种灵活机器平台上的(光纤)光学系统的可扩展精度装配过程
4	10:00 - 10:25	Lin, Hongtao	College of Information Science & Electronic Engineering, Zhejiang University 信息科学与电子工程学院, 浙江大学	Chalcogenide Integrated Nanophotonics 硫基集成纳米光子学

Session MM-B: Materials for Nanophotonics II (10:50 – 12:55)**星期一上午-下，纳米光子学材料 II**

Session Chair: Junfeng Song, State Key Laboratory on Integrated Optoelectronics, Jilin University

No.	Time	Presenter	Institution	Topic
5	10:50 - 11:15	Buca, Dan	Peter Grünberg Institute 9 (PGI-9), Forschungszentrum Juelich GmbH 彼得·格林贝格第9研究所 (PGI-9) , 于利希研究中心	Sn based alloy – Challenges and Chances for Group IV light emitters 锡基合金 - IV族发光体的挑战 和机遇
6	11:15 - 11:40	Schilling, Jörg	Centre of Innovation Kompetenz (ZIK) SiLi-nano, Martin-Luther-University Halle-Wittenberg 创新能力中心 (ZIK) SiLi-nano, 哈勒-维腾贝格大学	Spontaneous emission enhancement of Ge(Si) quantum dots embedded in silicon Mie-resonators 嵌入硅Mie谐振器中的锗 (硅) 量子点的自发发射增强
7	11:40 - 12:05	Schulze, Jörg	Institute of Semiconductor Engineering (IHT) , University of Stuttgart 半导体工程研究所 (IHT) , 斯图加特大学	SiGeSn Virtual Substrates on Silicon for SiGeSn- Based, CMOS-Compatible Devices 用于基于SiGeSn的CMOS兼 容器件的硅基SiGeSn虚拟衬底
8	12:05 - 12:30	Sanfilippo, Andrea	Huawei Technologies 华为技术有限公司	Cooperation Opportunities with Huawei 与华为的合作机会

Session MA-A: Novel Photonic Devices I (14:15 – 15:55)**星期一下午-上：新型光子器件 I**

Session Chair: Joyce Poon, Max Planck Institute for Microstructure Physics

No.	Time	Presenter	Institution	Topic
9	14:15 - 14:40	Leuthold, Juerg	Eidgenössische Technische Hochschule Zürich (ETH) 瑞士苏黎世联邦理工学院	Plasmonic Communications 等离子体通信
10	14:40 - 15:05	Huang, Yong-Jun 黄勇军	School of Information and Communication Engineering, University of Electronic Science and Technology of China 信息与通信工程学院， 电子科技大学	Cavity optomechanics: The chance of chip-scale low- power stable reference clock 腔体光机械：芯片级低功耗稳定 基准时钟的机遇
11	15:05 - 15:30	Wen, Guangjun 文光俊	School of Information and Communication Engineering, University of Electronic Science and Technology of China 信息与通信工程学院， 电子科技大学	Research on magnetic field detector based on photonic crystal cavity photomechanical structure 基于光子晶体腔体光机械结构的 磁场探测器研究
12	15:30 - 15:55	Berroth, Manfred	Institute of Electrical and Optical Communications Engineering, University of Stuttgart 电气与光通信工程研究所， 斯图加特大学	Tunable Optical Devices Using Subwavelength Structures 使用亚波长结构的可调光器件

Session MA-B: Novel Photonic Devices II (16:20 – 18:00)**星期一下午-下：新型光子器件 II**

Session Chair: Manfred Berroth, University of Stuttgart

No.	Time	Presenter	Institution	Topic
13	16:20 - 16:45	Poon, Joyce	Max Planck Institute for Microstructure Physics 马克斯普朗克微结构物理研 究所	Monolithically Integrated 3D Silicon Photonic Platforms 单片集成 3D 硅光子平台
14	16:45 - 17:10	Geuzebroek, Douwe	LioniX International B.V.	Silicon nitride photonic integration: technology and application 氮化硅光子集成：技术与应用
15	17:10 - 17:35	Song , Junfeng	State Key Laboratory on Integrated Optoelectronics, Jilin University 集成光电子学国家重点实验 室，吉林大学	Optical Beam Steering by Optical Phased Array 用光学相控阵进行光束转向
16	17:35 - 18:00	Yang, Jianyi	Department of Information Science and Electronics Engineering, Zhejiang University 信息科学与电子工程系， 浙江大学	Asymmetric Y-junction based optical mode- division multiplexing on silicon 基于非对称 Y 结的硅基光学模分 复用

Tuesday, Sept. 18th 2018
2018年9月18日，星期二

Session TM-A: Communications Systems I (8:45 – 10:25)

星期二上午-上：通信系统 I

Session Chair: Xinliang Zhang, Wuhan National Laboratory for Optoelectronics,
 Huazhong University of Science and Technology

No.	Time	Presenter	Institution	Topic
17	08:45 - 09:10	Koos, Christian	Institute of Photonics and Quantum Electronics , Karlsruhe Institute of Technology 光子学与量子电子学研究所, 卡尔斯鲁厄理工学院	Optical frequency combs: Tools for high-speed communications and optical distance metrology 光频梳：用于高速通信和光学距 离测量的工具
18	09:10 - 09:35	Liu, Lei (Bruce)	Huawei Technologies Co., Ltd. 华为技术有限公司	Photonic Integration Applications in Optical Communications: Requirement for Silicon Photonics Devices from the System Vendor' s point of view 光通信中的光子集成应用：从系 统供应商的角度对硅光子器件的 要求
19	09:35 - 10:00	Schaeffer, Christian G.	Chair for High-Frequency Technology, Helmut- Schmidt-University 高频技术讲席, 赫尔穆特·施密特大学	Discrete Nonlinear Fourier Spectrum based optical Communication System 基于离散非线性傅里叶频谱的光 通信系统
20	10:00 - 10:25	Pachnicke, Stephan	Christian-Albrechts- Universität zu Kiel 基尔大学	Nonlinear Fourier Transform based Optical Transmission using Electronic-Photonic Signal Processing 基于非线性傅里叶变换的光学透 射电子光子信号处理

Session TM-B: Communications Systems II (10:50 – 12:30)**星期二上午-下：通信系统 II**

Session Chair: Christian Koos, Karlsruhe Institute of Technology

No.	Time	Presenter	Institution	Topic
21	10:50 - 11:15	Gudyriev, Sergiy	Heinz Nixdorf Institute, University Paderborn, 海恩茨·尼克斯多夫研究所, 帕德博恩大学	Electronic Photonic Integrated Circuits for Coherent and Non-Coherent Receivers 用于相干和非相干接收机的电子 光子集成电路
22	11:15 - 11:40	Romero- García, Sebastián	Cisco Optical GmbH 思科光学	Optical modulator requirements for coherent transmitters with higher- order modulation formats 具有更高阶调制格式的相干发射 机的光调制器要求
23	11:40 - 12:05	Grote, Norbert	Fraunhofer Heinrich-Hertz Institute 弗劳恩霍夫海因里希赫兹研究 所	Electro-absorption modulator enabled InP based transmitter devices for ultra-high bitrate data generation 用于实现超高比特率数据的由电 吸收调制器支持的基于 InP 的发射器件
24	12:05 - 12:30	Randel, Sebastian	Institute of Photonics and Quantum Electronics (IPQ) , Karlsruhe Institute of Technology (KIT), 光子与量子电子研究所, 卡尔斯鲁厄理工学院(KIT)	Advanced Transceiver Designs for Short-Reach Optical Links 用于短距离光链路的高级收发器 设计

Session TA-A: Communications Systems III (14:15 – 15:55)**星期二下午-上：通信系统 III**

Session Chair: Firooz Aflatouni, University of Pennsylvania

No.	Time	Presenter	Institution	Topic
25	14:15 - 14:40	Richter, Jens	Institute of Integrated Photonics, RWTH Aachen University 集成光子学研究所, 亚琛工业大学	High Quality-Factor Waveguide Coupled Microtoroid Resonators
26	14:40 - 15:05	Witzens, Jeremy	Institute of Integrated Photonics, RWTH Aachen University 集成光子学研究所, 亚琛工业大学	Silicon Photonics High Speed Modulators and Transceivers 硅光子高速调制器和收发器
27	15:05 - 15:30	Zhang, Xinliang	Wuhan National Laboratory for Optoelectronics & School of Optical and Electronic Information, Huazhong University of Science and Technology 武汉光电国家实验室和华中科技 大学光电信息学院	Photonic Integrated Chips for Optical Computing 用于光学计算的光子集成芯片
28	15:30 - 15:55	Håkansson, Andreas	Sicoya GmbH Sicoya 有限责任公司	Towards high volume Silicon Photonic 400G O-band transceivers using 130nm Bi-CMOS FEOL technology 采用 130nm Bi-CMOS FEOL 技术的高容量硅光子 400G O 波段收发器

Session TA-B: Electronic-Photonic Co-Design (16:20 – 18:00)**星期二下午-下 : 电子光子联合设计**

Session Chair: Jeremy Witzens, RWTH Aachen University

No.	Time	Presenter	Institution	Topic
29	16:20 - 16:45	Emami, Azita	California Institute of Technology (Caltech) 加州理工学院	Energy-efficient Optical Interconnects 高能效光互连
30	16:45 - 17:10	Scheytt, Christoph	Heinz Nixdorf Institute, University Paderborn 海恩茨·尼克斯多夫研究所, 帕德博恩大学	Ultra-broadband Signal Processing by means of Electronic-Photonic Integration 通过电子 - 光子集成进行超宽带 信号处理
31	17:10 - 17:35	Aflatouni, Firooz	Department of Electrical and Systems Engineering, University of Pennsylvania 电气和系统工程系, 宾夕法尼亚大学	On-chip optical frequency stabilization and synthesis 片上光频稳频和合成
32	17:35 - 18:00	Choi, Jung Han	Photonic Components Division, Fraunhofer Heinrich-Hertz Institute, 光子器件部门, 弗劳恩霍夫海 因里希赫兹研究所	Co-design of high-speed and low-power driver-IC with optics 高速和低功耗驱动器 IC 与光学器 件的共同设计

Wednesday, Sept. 19th 2018
2018 年 9 月 19 日, 星期三

Session WM-A: Integrated Circuits I (8:45 – 10:25)

星期三上午-上：集成电路 I

Session Chair: Yong-Zhong Xiong, Nanjing University of Science and Technology

No.	Time	Presenter	Institution	Topic
33	08:45 - 09:10	Knoch, Joachim	Institute of Semiconductor Electronics, RWTH Aachen University 半导体电子学研究所, 亚琛工业大学	Multigate Field-Effect Transistor Devices 多栅极场效应晶体管器件
34	09:10 - 09:35	Wang, Zhenxing	AMO GmbH AMO 有限责任公司	Graphene based diodes and integrated circuits for RF applications 基于石墨烯的二极管和用于射频 应用的集成电路
35	09:35 - 10:00	Wang, Zhi-Gong	Institute of RF & OE ICs, Southeast University 射频与光电子集成电路 研究所, 东南大学	Concept and Circuit of Neural Signal Blocking Based On Anti- Missile Strategy 基于反导战略的神经信号阻塞概 念和电路
36	10:00 - 10:25	Zimmermann, Lars	Fachgebiet Siliziumphotonik, Technische Universität Berlin 硅光子部, 柏林工业大学	Telecom application of nonlinear optical signal processing in pin-assisted silicon nano-waveguides 非线性光信号处理在 pin 辅助硅 纳米波导中的电信应用

Session WM-B: Integrated Circuits II (10:50 – 12:30)**星期三上午-下：集成电路 II**

Session Chair: Azita Emami, California Institute of Technology

No.	Time	Presenter	Institution	Topic
37	10:50 - 11:15	Xiong, Yong-Zhong	Nanjing University of Science and technology, Nanjing, China 南京理工大学	SiGe IC design for millimeter wave imaging 用于毫米波成像的 SiGe IC 设计
38	11:15 - 11:40	Schlechtweg, Michael	Fraunhofer Institute for Applied Solid State Physics (IAF) 弗劳恩霍夫应用固体物理 研究所 (IAF)	Devices, Circuits and Modules Based on Advanced III/V mHEMT Technology for Space, Communication and Sensing Applications up to 1 THz 用于可达 1 太赫兹的用于空间,通 信和传感应用的基于高级 III / V mHEMT 技术的器件电路和模块
39	11:40 - 12:05	Sun, Sheng	School of Electronic Science and Engineering, University of Electronic Science and Technology of China 电子科学与工程学院, 电子科技大学	Numerical calibration and deembedding techniques for microwave devices and circuits 用于微波器件和电路的数字校准 和去嵌入技术
40	12:05 - 12:30	Dittmann, Regina	Forschungszentrum Jülich 于利希研究中心	Redox based resistive switching memories 基于氧化还原的电阻式开关存储 器

Session WA-A: Sensing I (14:15 – 15:55)

星期三下午-上：传感 I

Session Chair: Liu De-Ming, National Engineering Laboratory for Next Generation Internet Access Systems, Huazhong University of Science and Technology

No.	Time	Presenter	Institution	Topic
41	14:15 - 14:40	Yu, Yude	State Key Laboratory on Integrated Optoelectronics, Institute of Semiconductors 集成光电子学国家重点实验室，半导体研究所	Single Cell Array Construction and Nucleic Acid Analysis Based on Chips 基于芯片的单细胞阵列构建和核酸分析
42	14:40 - 15:05	Ingebrandt, Sven	Institute of Materials in Electrical Engineering 1, RWTH Aachen University 电气工程材料第 1 研究所，亚琛工业大学	Optoelectronic biosensors based on top-down fabricated silicon nanowire arrays 基于 top-down 制造的硅纳米线阵列的光电生物传感器
43	15:05 - 15:30	Burg, Thomas	Max Planck Institute for Biophysical Chemistry 马克斯普朗克生物物理化学研究所	Optofluidic microsystems for life science applications 用于生命科学应用的光流控微系统
44	15:30 - 15:55	Paschke, Katrin	Laser Modules Lab, Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik 激光模块实验室，费迪南德·布劳恩研究所，莱布尼茨高频技术研究所	Hybrid integrated laser modules in the visible spectral range for medical applications 用于医疗应用的可见光谱范围内的混合集成激光模块

Session WA-B: Sensing II (16:20 – 18:00)

星期三下午-下：传感 II

Session Chair: Yude Yu, State Key Laboratory on Integrated Optoelectronics, Institute of Semiconductors

No.	Time	Presenter	Institution	Topic
45	16:20 - 16:45	Liu, De-Ming	National Engineering Laboratory for Next Generation Internet Access System, Huazhong University of Science and Technology 下一代互联网接入系统国家工程实验室，华中科技大学	Distributed acoustic sensor based on the micro-structure optical fiber and its applications 基于微结构光纤的分布式声学传感器及其应用
46	16:45 - 17:10	Zhang, Ziyang	Leibniz-Institut für Astrophysik Potsdam (AIP) 波茨坦莱布尼茨天体物理研究所 (AIP)	Photonic Components in Astronomical Instrument: Sky-Emission Filters and Mini-Spectrometers 天文仪器中的光子元件：天空发射滤光片和小型光谱仪
47	17:10 - 17:35	Wagner, Thorsten	Department of Chemistry, Paderborn University, 化学系, 帕德博恩大学	Responsive Photonic Structures for Sensing 用于传感的响应光子结构
48	17:35 - 18:00	Lü, Xiao-Ying	State Key Lab of Bioelectronics, Southeast University 生物电子学国家重点实验室，东南大学	Circuit Design and Experimental Study of Lower Esophageal Sphincter Stimulator for Treatment of Gastroesophageal Reflux Disease 下食管括约肌刺激器治疗胃食管反流病的电路设计与实验研究

Practical Information

Contact info:

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Internet Access:

There is free internet everywhere in the hotel (up to 256 kB/s). Use the **m3connect** wireless network. Browser should be redirected to login page. Follow instructions (no prior login information needed).

Premium higher speed internet access can be booked at the hotel reception (not covered by conference).

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