

第十五届国际激光加工技术研讨会

15th International Laser Processing and Systems Conference (LPC 2020)

中国 上海 2020年6月28-30日

June 28-30, 2020 Shanghai China

6月28日: 大会主题报告 13:30-17:00

June 28: Plenary Session 13:30-17:00

6月29日: 分论坛1 09:30-15:50

June 29: Conference 1 09:30-15:50

6月30日: 分会场 2 09:30-15:50

June 30: Conference 2 09:30-15:50



大会主席:

General Conference Chairs:

王又良 研究员 中国光学学会激光加工专业委员会

Prof. Youliang Wang, Chinese Optical Society - Laser Processing Committee

Reinhart Poprawe 教授 德国亚琛工业大学激光技术学院

Prof. Emeritus Reinhart Poprawe, Laser Technology RWTH Aachen University



大会执行主席:

Executive Conference Chairs:

王华明 院士 北京航空航天大学

Academician, Prof. Huaming Wang, Beijing University of Aeronautics and Astronautics

陆永枫 教授 美国内布拉斯加林肯大学

Prof. Yongfeng Lu, University of Nebraska Lincoln USA

顾冬冬 教授 南京航空航天大学

Prof. Dongdong Gu, Nanjing University of Aeronautics and Astronautics

2020年6月28日 / 线上会议

June 28, 2020 / Online Conference

大会开幕式

Opening Ceremony

主持人: 唐霞辉 教授, 华中科技大学

Host: Prof. Xiahui Tang, Huazhong University of Science and Technology

时间 Time	报告题目 Topic	报告人 Speaker
13:30-13:40	慕尼黑博览欢迎致辞 Welcome Speech by Messe Muenchen	Reinhard Pfeiffer 博士, 副总裁, 慕尼黑博览集团 Dr. Reinhard Pfeiffer, Deputy CEO, Messe München
13:40-13:50	大会主席欢迎致辞 Welcome Speech by General Conference Co-Chair	Reinhart Poprawe 教授 德国亚琛工业大学激光技术学院教授 Prof. Emeritus Reinhart Poprawe, Professor of RWTH Aachen University – Chair for Laser Technology

13:50-14:00	大会主席欢迎致辞 Welcome Speech by General Conference Co-Chair	王又良 研究员 中国光学学会激光加工专业委员会主任 Prof. Youliang Wang, President, Chinese Optical Society - Laser Processing Committee
大会主题报告 plenary lectures		
主持人：唐霞辉 教授，华中科技大学 Host:Prof. Xiahui Tang, Huazhong University of Science and Technology		
时间 Time	报告题目 Topic	报告人 Speaker
14:00-14:30	激光产业60年——激光器的过去与未来 60 years of lasers – where we come from and where we go to	Reinhart Poprawe 教授 德国亚琛工业大学激光技术学院教授 Prof. Emeritus Reinhart Poprawe, Professor of RWTH Aachen University – Chair for Laser Technology
14:30-15:00	树脂混合物功能性结构的纳米3D打印技术 Nanoscale 3D printing of functional structures using blended resin mixtures	陆永枫教授，美国内布拉斯加林肯大学（UNL）Lott主席教授 Prof. Yongfeng Lu, Lott Distinguished Professor of Engineering at the University of Nebraska-Lincoln (UNL)
15:00-15:30	激光增材制造技术在民用航空领域的应用进展及挑战 Application advances and challenges of laser additive manufacturing technology in civil aviation	雷力明 副总工程师 中国航发上海商用航空发动机制造有限责任公司 Prof. Dr. Liming Lei, Deputy Chief Engineer of AECC SHANGHAI COMMERCIAL AIRCRAFT ENGINE MANUFACTURING CO., LTD.
15:30-16:00	选区激光熔化在多孔减振金属材料/结构制备中的优势、挑战与展望 Advantages, challenges and prospects of selective laser melting in porous damping metal / structures	黄姝珂 主任，中国工程物理研究院机械制造工艺研究所 Prof. Dr. Shuke Huang, Director of Institute of Machinery Manufacturing Technology, China Academy of Engineering Physics
16:00-16:30	激光器、配套模块和数字化助力智能制造 Smart production based on latest developments in lasers, sensors and digitization	Marc Kirchhoff 通快集团全球行业和大客户总监 Head of Industry and Key Account, TRUMPF Laser-uns Systemtechnik GmbH
16:30-17:00	滨松光子最新激光应用进展 Latest laser applied products of Hamamatsu Photonics	内山直己，滨松光子学株式会社副总经理 Naoki Uchiyama, Deputy General Manager of Hamamatsu Photonics
2020年6月29日 / 线上会议 June 29, 2020 / Online Conference		
分会场 1 Conference 1		
主持人：唐霞辉 教授，华中科技大学 Host:Prof. Xiahui Tang, Huazhong University of Science and Technology		
时间 Time	报告题目 Topic	报告人 Speaker
09:30-09:50	激光增材制造高Nb含量Inconel 718 合金的组织和性能 Microstructure and mechanical property of high Nb content Inconel 718 superalloy fabricated by laser solid forming	刘奋成 副教授，南昌航空大学 轻合金加工科学与技术国防重点学科实验室 Fencheng Liu, Associate Professor of National Defence Key Discipline Laboratory of Light Alloy Processing Science and Technology, Nanchang Hangkong University
09:50-10:10	大功率蓝光半导体激光光束整形 High-power blue diode laser beam shaping	唐霞辉 教授，华中科技大学 Prof. Xiahui Tang, Huazhong University of Science and Technology
10:10-10:30	Inconel 718激光增材再制造修复件的热腐蚀行为及机械性能研究 Hot corrosion and mechanical performances of Inconel 718 repaired components via laser additive remanufacturing	张群莉 副教授，浙江工业大学激光先进制造研究院副院长 Qunli Zhang, Associate Professor and Deputy Dean of Institute of Laser Advanced Manufacturing, Zhejiang University of Technology

10:30-10:50	基于应力缓释的3D打印合金成分设计：高强铝、高熵和形状记忆合金 Alloy composition design of 3D-printing alloy based on stress release: high-strength aluminum, high-entropy and shape memory alloys	李瑞迪,中南大学粉末冶金国家重点实验室 Ruidi Li, State Key Laboratory of Powder Metallurgy, Central South University
10:50-11:10	电冲击处理对激光直接成型近β钛合金微观组织与织构的影响 Effects of electroshock treatment on microstructure evolution and texture distribution of near-β titanium alloy manufactured by directed energy deposition	谢乐春 教授，武汉理工大学 Lechun Xie, Professor of Wuhan University of Technology
11:10-11:30	塑料激光焊接技术的工业应用 Application of plastic laser welding technology in industry	郭林华 总经理助理，广东顺德华焯机械科技有限公司 Linhua Guo, General Manager Assistant, Guangdong Shunde Huazhuo Machinery Technology Co. LTD
11:30-11:50	恩耐高功率光纤激光器在铝建材行业的应用 nLIGHT high power fiber's aluminum construction materials application	马业祥 高级销售经理，恩耐激光技术（上海）有限公司 Matt Ma, Senior Sales Account Manager of nLIGHT Laser (Shanghai) Co., Ltd.
午休 Lunch Break		
主持人：张群莉 副教授，浙江工业大学 Host: Associate Prof. Qunli Zhang, Zhejiang University of Technology		
时间 Time	报告题目 Topic	报告人 Speaker
13:30-13:50	TiB ₂ 陶瓷增强铝基复合材料选区激光熔化 Selective laser melting of TiB ₂ ceramic reinforced aluminum matrix composites	席丽霞 讲师,南京航空航天大学 Lixia Xi, Lecturer of Nanjing University of Aeronautics and Astronautics
13:50-14:10	高功率光纤激光深熔焊接羽辉的形成原因 The formation reason of the plume induced during high-power fiber laser deep penetration welding	邹江林 副研究员，北京工业大学 Ting Huang, Associate Professor of Beijing University of Technology
14:10-14:30	采用西门子控制器的DED层高控制OCT传感器 OCT sensor for layer height control in DED using SIEMENS machine controller	Dr. Markus Kogel-Hollacher Head of Dept. R&D Projects, Precitec GmbH & Co. KG
14:30-14:50	焊接与增材制造的介观和宏观尺度工艺模拟软件 Mesoscale and macroscale simulation of welding and additive manufacturing process	庞盛永 副教授, 华中科技大学 Shengyong Pang, Associate Professor of Huazhong University of Science and Technology
14:50-15:10	蓝光激光二极管在材料加工中的应用 Blue laser diode for material processing applications	李跃 高级产品经理, 欧司朗光电半导体 激光产品线 Allen Li, Senior Product Manager in Product Line Laser, OSRAM Opto Semiconductors
15:10-15:30	难混溶铜铬合金激光表面细晶化及其电性能 Grain refinement of immiscible Cu-Cr alloy with enhanced interruption capability by laser surface melting	张犁天，北京工业大学激光工程研究院超快激光与高精制造研究所 Litian Zhang, Ultrafast Laser & Precision Manufacturing Research Center (ULPM), Institute of Laser Engineering, Beijing University of Technology
15:30-15:50	水助激光3D减材制造技术的研究 Research on water-assisted laser 3D subtractive manufacturing technology	王海涛，中国科学院宁波材料技术与工程研究所 Haitao Wang, Ningbo Institute of Industrial Technology, CAS

分会场 2
Conference 2

主持人：张兆伟 教授，华中科技大学
Host: Prof. Zhaowei Zhang, Huazhong University of Science and Technology

时间 Time	报告题目 Topic	报告人 Speaker
09:30-09:50	激光等离子体点火在先进动力系统的应用 Application of laser-induced plasma ignition in advanced propulsion systems	李晓晖 副教授，哈尔滨工业大学航天学院 Xiaohui Li, Associate Professor of School of Astronautics, Harbin Institute of Technology
09:50-10:10	飞秒、皮秒和纳秒激光器在PI膜切割中的比较 Comparison of polyimide cutting with femtosecond, picosecond and nanosecond lasers	顾新华 总经理，天津凯普林激光科技有限公司 Xinhua (Michael) Gu, CEO of Tianjin BWT Laser Ltd.
10:10-10:30	工业级先进激光器技术及其精密加工应用 Industrial advanced laser technology and its application in micromachining	邵国栋 产品线总监，武汉华锐超快光纤激光技术有限公司 Guodong Shao, R&D Director of Wuhan Huaray Ultrafast Fiber Laser Technology Co., Ltd
10:30-10:50	UV ps激光加工聚合物OLED材料，用于下一代5G和可折叠消费电子设备 Processing of flex-PCB materials for next generation 5G devices with high-power pulsed UV lasers	田志宏 应用及技术支持经理，Spectra-Physics光谱物理—MKS万机仪器集团 Andrew Tian, Applications Engineer Manager of Spectra-Physics-MKS Instruments
10:50-11:10	面向小零件标识的亚微米点阵化Data Matrix码的激光标刻 Sub-micron rasterizing data matrix code on stainless steel by laser marking for identification of small parts	李夏霜，陕西科技大学 Xiashuang Li, Shaanxi University of Science & Technology
午休 Lunch Break		
主持人：罗亦杨 研究员，南洋理工大学 Host: Yiyang Luo, Research Fellow of Nanyang Technological University		
13:30-13:50	基于精准建模方法构建激光钻孔工艺数字阴影 Reduced modelling approaches towards a process digital shadow for laser drilling process	王悠 科研人员，亚琛工业大学机械学院非线性动力学激光加工系/弗劳恩霍夫激光技术研究所建模与仿真部 You Wang, Department for Nonlinear Dynamics of Laser Processing, RWTH Aachen University
13:50-14:10	超快光纤激光器瞬态动力学研究 Research on transient dynamics of ultrafast fiber lasers	罗亦杨 研究员，南洋理工大学 Yiyang Luo, Research Fellow of Nanyang Technological University
14:10-14:30	高功率脉冲光纤激光器及其应用 High-power pulsed fiber lasers and its applications	张楠 高级项目经理，深圳市杰普特光电股份有限公司 Nan Zhang, Senior Project Manager of SHENZHEN JPT OPTO-ELECTRONICS CO., LTD.

14:30-14:50	啁啾脉冲光参量振荡器及超宽带中红外激光频率梳的产生 Generation of ultra-broadband mid-infrared emission from chirped-pulse optical parametric oscillators	张兆伟 教授，华中科技大学光学与电子信息学院激光技术系 Prof. Zhaowei Zhang, School of Optical and Electronic Information, Huazhong University of Science & Technology
14:50-15:10	面向于工业应用的多光束螺旋钻孔技术 Ultrafast laser multi-beam helical drilling for industrial applications	Chao He, Research Associate, Project Manager of Fraunhofer Institute for Laser Technology ILT
15:10-15:30	超快激光微纳加工二氧化钛材料机理及应用研究 Study on mechanism and application of micro/nano processing of TiO ₂ with ultrafast laser	闫剑锋 副教授，清华大学 Jianfeng Yan, Associate Professor of Tsinghua University
15:30-15:50	具有同轴观察光学系统的10W紫外激光精密加工的开发 Development of high precision 10W UV laser processing machine with the coaxial observation optical system	Hidenori Osada ,President & CEO of OPI Corporation

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