

赋能智造・光耀未来

Intelligent Laser Manufacturing to Light Up the Future

LMN 2023

世界激光制造大会

LMN World Laser Manufacturing Conference 2023

2023年6月27-29日 27-29 June, 2023 中国·深圳 Shenzhen China 总结报告 SUMMARY REPORT

组织构架 ORGANIZATIONS

指导单位 Sponsors

深圳市工业和信息化局 Industry and Information Technology Bureau of Shenzhen Municipality

主办单位 Hosted by

中国光学光电子行业协会 China Optics and Optoelectronics Manufacturers Association 广东省激光行业协会 Guangdong Laser Industry Association

承办单位 Co-organizers

深圳市智造激光技术研究院 Shenzhen Zhizao Laser Technology Research Institute 中国光学光电子行业协会激光应用分会 China Optics and Optoelectronics Manufacturers Association Laser Application Branch

深圳市激光智能制造行业协会 Shenzhen Laser Intelligent Manufacturing Industry Association

执行单位 Organizers

汉诺威米兰星之球展览(深圳)有限公司 Hannover Milano XZQ Exhibitions (Shenzhen) Co., Ltd 汉诺威米兰展览(上海)有限公司 Hannover Milano Fairs Shanghai Ltd 《激光制造商情》 Laser Manufacture News

协办单位 Supporting Organizations

美国光学学会 OPTICA

瑞士光学和显微学会 Swiss Society for Optics and Microscopy



L M N 世界激光制造大会

THANKS TO MEDIA PARTNERS



























































































































































































































































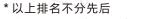


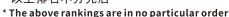














大会概述 OVERVIEW

备受全球激光行业同仁关注的LMN 2023世界激光制造大会于2023年6月27-29日在深圳国际会展中心(宝安新馆)成功召开。来自美国、德国、法国、俄罗斯、瑞士、日本等国内外最富洞见的专家学者和行业精英齐聚一堂,以"赋能智造·光耀未来"为主题,共同探讨未来激光制造技术发展前景,共绘激光制造产业美好愿景。大会为期三天,首日为全体大会,另两日分别召开围绕3C、"双碳"、新能源、储能等热点话题的数场分论坛与平行会议,共迎来听众2063人次,较上届增长72%,客座率创下新高。

LMN World Laser Manufacturing Conference 2023 which has attracted great attention of the colleagues in the global laser industry, was successfully held at Shenzhen World Exhibition & Convention Center (Bao'an New Hall) on June 27-29. The most insightful experts, scholars and industry elites from the United States, Germany, France, Russia, Switzerland, Japan and other countries gathered together to discuss the future development of laser manufacturing technology and draw a bright vision for the laser manufacturing industry with the theme of "Intelligent Laser Manufacturing to Light Up the Future". The Conference lasted for three days, with a plenary on the first day, and several sub-forums and parallel sessions around 3C, carbon peak and neutrality, new energy, energy storage and other hot topics on next two days, with a record-breaking attendance of 2063, up by 72% over the previous sessions.

50+人

嘉宾数 /Speakers

222

2,063人

听众 /Attendees

i**i** i**i**

72%

观众增长率 /Growth rate)







本届大会得到了广东省、深圳市和宝安区相关部门及领导以及业内领军人物的大力支持。广东省政协党组成员、副主席,广东省激光与增材制造、精密仪器设备战略性新兴产业集群"链长"袁宝成,宝安区委书记王守睿,中国光学光电子行业协会理事长应明炯,2018年诺贝尔物理学奖得主杰哈·莫罗,德国汉诺威展览公司高级副总裁阿诺·海希在开幕式上致辞。中国工程院院士范滇元,广东省政协经济委员会主任梁维东,广东省科学技术厅副厅长吴世文,宝安区领导陈龙兴、朱云、高瞻等出席论坛。

The conference received strong support from relevant departments and officials in Guangdong Province, Shenzhen City and Bao'an District, as well as the leading figures of the industry. Yuan Baocheng, Vice Chairman of the CPPCC Guangdong Provincial Committee, Wang Shourui, the Secretary of the Baoan District Party Committee, Ying Mingjiong, President of China Optics and Optoelectronics Manufacturers Association, Gérard Mourou, the 2018 Nobel Laureate in Physics, and Arno Reich, Senior Vice President of Deutsche Messe AG, delivered speeches at the opening ceremony. Fan Dianyuan, Academician of the Chinese Academy of Engineering, Liang Weidong, Director of the Economic Committee of Guangdong Provincial Political Consultative Conference, Wu Shiwen, Deputy Director of Guangdong Provincial Department of Science and Technology, and Chen Longxing, Zhu Yun and Gao Zhan, officials of Baoan District, were present at the forum.





深圳激光产业蕴藏无限可能,产值规模已超百亿元

Shenzhen Laser Industry Contains Unlimited Possibilities, With An Output Value of More Than RMB 10 Billion

近年来,激光技术产业发展迅猛,激光技术已成为先进制造的重要手段,引起了社会各界的高度重视。中国光学光电子行业协会理事长应明炯表示,深圳市是激光技术产业化先行者,激光制造持续赋能区域经济的发展,政府对激光产业非常重视和支持,出台了《深圳市培育发展激光与增材制造产业集群行动计划》,计划以宝安区为核心的承载区,打造覆盖激光与增材制造全产业链条的聚集区,成长起大族激光、创鑫激光等一批激光龙头企业,产值规模已超过百亿,有力推动了激光技术的产业化发展。

In recent years, the laser technology industry has developed rapidly, and laser technology has become an important means of advanced manufacturing, attracting much attention from all walks of life. Ying Mingjiong, President of China Optics and Optoelectronics Manufacturers Association, remarked that Shenzhen is a pioneer in the industrialization of laser technology and laser manufacturing continues to empower the development of the regional economy. The government attaches great importance and renders generous support to the laser industry, and has issued the Action Plan for Cultivating and Developing Laser and Additive Manufacturing Industry Cluster in Shenzhen. The Plan has built a cluster area covering the whole industrial chain of laser and additive manufacturing with Baoan District as the core bearing area, and fostered a number of leading laser enterprises such as Han's Laser and Max Photonics. The scale of output value exceeds RMB ten billion, which has effectively promoted the industrialization of laser technology.



LMN世界激光制造大会始终立足前沿、持续创新,鼓励并支持各类新材料、新技术、新设备在激光领域的创新应用。通过LMN世界激光制造大会这样的高水平国际化平台,将展示最前沿的学术成果和应用方案,促进深圳与全球激光领域的交流合作,进一步推动深圳乃至中国激光产业的创新发展。

LMN World Laser Manufacturing Conference has always kept its foothold on cutting-edge technology and continuous innovation, and encouraged and supported the innovative application of various new materials, technologies and equipment in the laser field. Through such a high-level international platform as LMN World Laser Manufacturing Conference, the most cutting-edge academic achievements and application solutions will be showcased, promoting the exchange and cooperation between Shenzhen and the global laser field, and further pushing on the innovative development of the laser industry in Shenzhen and China.



激光交流盛会,以学术赋能业态升级

Networking Event Enables Academics to Empower Laser Industry Upgrades

作为业内领先的技术创新应用型大会, LMN 2023 凝聚了全球优秀资源, 相继邀请到了顶尖专家学者分享创新技术研发报告, 为激光行业"产、学、研、用"的未来发展打开新思路。

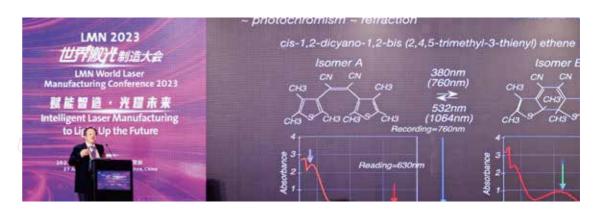
As the industry's leading conference on technological innovation and application, LMN 2023 brought together the world's best resources and invited top experts and scholars to share innovative technology research and development reports, bringing new insights into the future development of the laser industry in "production, learning, research and application".





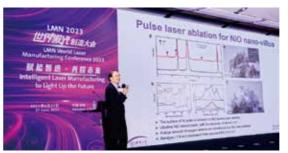
在全体大会上,美国光学学会主席河田聪教授就"如何利用光学技术制作三维纳米结构"这一话题展开讨论。通过多年的研究和实践,他提出可以使用出双光子吸收的光子聚合技术和双光子还原的方法来实现三维微制造。但这种制图绘制的方式,或者说自上而下的制造方式,存在激光设备昂贵、生产耗时太长等问题。对此,河田聪教授提出了一种自下而上的方式,以森林为灵感,尝试用人工来生长银纳米森林,通过自我组装、自我生长、自我组织的方式来进行生产。

In the plenary session, Prof. Satoshi Kawata, President of OPTICA, discussed on the topic of "How to make three-dimensional nanostructures using on optical technology". Through years of research and practice, he proposed that three-dimensional micro-manufacturing can be achieved using photon polymerization techniques for two-photon absorption and the method of two-photon reduction. However, this drawing and mapping approach, or top-down manufacturing approach, has problems such as expensive laser equipment and too long production time. In response, Prof. Satoshi Kawata proposed a bottom-up approach, inspired by forests, to try to grow silver nanoforests artificially and produce them by self-assembly, self-growth, and self-organization.

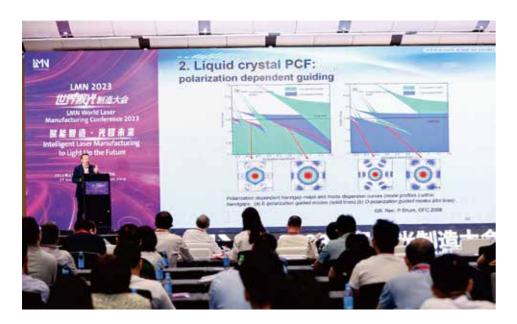


清华大学长聘教授钟敏霖分享了运用超快激光诱导纳米技术高效水分解制氢的研究成果。水分解制氢实验中,催化剂中的纳米结构是关键,一般水热法得到的纳米颗粒并不稳定,而使用激光技术后纳米结构稳定性有效解决,氢气氧气产生效率非常高。期间钟敏霖教授还列举了团队近年来关于超快激光、纳米结构材料的研究成果,例如使用超快激光使任何金属表面变成荷叶式的不沾水的表面,用油控制表面润湿性的智能化表面等。

Zhong Minlin, Tenured Professor of Tsinghua University, shared his research results on the use of ultrafast laser-induced nanotechnology for efficient hydrogen production by hydrolysis. The nanostructure in the catalyst is the key in the experiment of hydrogen production by hydrolysis. The nanoparticles obtained by general hydrothermal method are not stable, while the nanostructure stability is effectively improved with the use of laser technology, with very high hydrogen-oxygen generation efficiency. In the period, Prof. Zhong Minlin also enumerated the team's research results on ultrafast laser and nanostructured materials in recent years, such as a lotus leaf type of hydrophobic surface made from any metal surface by using ultrafast laser, and intelligent surface using oil to control surface wettability.







南方科技大学沈平教授的演讲主题是"光纤技术与应用"。沈平教授重点介绍了损耗低、速率快的抗谐振光纤和区别于实心光纤的微结构光纤,并分享了近年来一系列与海内外学者共同研究的降低光纤损耗方法的实验。他提出,光纤不仅可作为传输工具,作为传感器也具有很多优势,在声学感应、生物医学传感器等方面的均有应用潜力。

Prof. Shen Ping from South University of Science and Technology of China gave a lecture on "Optical Fiber-Based Technologies and Applications". He mainly introduced the resonance-resistant fiber with low loss and high speed, and the microstructured fiber which is different from the solid fiber, and shared a series of experiments on fiber loss reduction methods he studied with scholars from home and abroad in recent years. He pointed out that optical fiber not only can be used as a transmission tool, but also has many advantages as a sensor, with potential applications in acoustic sensing and biomedical sensors.

华南理工大学特罗菲莫夫·维亚切斯拉夫教授向大家介绍了俄罗斯激光科学技术的发展,包括俄罗斯著名的激光物理学的学院和研究所、俄罗斯在激光领域所做的科学研究和一些激光商业化应用的产品展示。

Prof. Vyacheslav Trofimov from South China University of Technology presented the development of laser science and technology in Russia, introducing the famous Russian colleges and institutes of laser physics, the scientific research done in the field of lasers in Russia and showcasing some products for laser commercialization.







瑞士光学和显微学会副会长比特·诺施旺德教授带来了主题为"利用轴同步实现超快脉冲激光高精度加工"的视频演讲。过去几年间,超快激光已经用于加工压印应用所需的旋转对称金属筒。传统方法采用螺旋凹印,即向转筒轴方向缓慢移动床头。比特·诺施旺德教授介绍了一种新方法,即使用高端振镜扫描系统引导激光束,让其以每秒数十米的速度通过不断旋转的部件。根据轴旋转的速度计算扫描系统路径,并根据圆周方向的脉冲间距调整轴的速度,实现旋转轴同步运动。在该方法下,即使轴旋转了数百轮,机器都能保证几微米的精度,让无缝高精度加工旋转对称部件成为了可能。

Prof. Beat Neuenschwander, Vice President of Swiss Society for Optics and Microscopy, presented a video lecture on the topic "Ultrafast Pulsed Laser High Precision Micromachining of Rotational Symmetric Parts by Synchronization of Axes ". Over the past few years, ultrafast laser has been used to process rotationally symmetric metal cylinders needed for embossing applications. The conventional method uses spiral gravure, namely a slow movement of the machine head in the direction of the rotor shaft. Prof. Beat Neuenschwander introduced a new method that uses a high-end vibrating mirror scanning system to guide the laser beam to pass through the constantly rotating part at a speed of tens of meters per second. The scanning system path is calculated based on the speed of axis rotation, and the axis speed is adjusted according to the pulse spacing in the circumferential direction to achieve synchronized motion of the rotating axes. With this method, the machine can guarantee a few microns of accuracy even if the axis is rotated for hundreds of rounds, making it possible to machine rotationally symmetrical parts with seamless high precision.

在"2023激光技术在3C电子行业应用大会"分论坛上,浙江大学邱建荣教授、中国科学院上海光学精密机械研究所赵全忠教授、西安交通大学陈烽教授等专家共同参与,直击激光技术在3C电子工艺应用中遇到的难点和痛点,分别就激光玻璃加工技术、超快激光封接技术及进展、飞秒激光微纳工程制造等议题展开探讨。

At the sub-forum "Laser Technology Application in 3C Electronics Industry Conference 2023", Prof. Qiu Jianrong from Zhejiang University, Prof. Zhao Quanzhong from Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Prof. Chen Feng from Xi'an Jiaotong University, and other experts directly focused on the difficulties and pain points in the application of laser technology in 3C electronics process and discussed the topics of laser glass processing technology, ultrafast laser sealing technology and its progress, femtosecond laser micro-nano engineering manufacturing, respectively.



展、会、赛三位一体,见证激光行业高"光"时刻

The Trinity of Exhibition, Conference and Competition, Witnessed the High "Light" Moment of the Laser Industry

作为第十六届深圳国际激光与智能装备、光子技术博览会的重要活动,本届大会还"2023激光技术在3C电子行业应用大会"、"碳路中国2023年粤港澳大湾区储能投资与创新论坛"以及"2023年深圳技能大赛激光设备安装调试员职业技能竞赛"等多场活动联动举办。展、会、赛三位一体,层层助力打造激光行业盛会。

As an important event of the LASERFAIR SHENZHEN 2023, LMN 2023 was held in conjunction with a number of events such as the "Laser Technology Application in 3C Electronics Industry Conference 2023", "Greater Bay Area Energy Storage Innovation and Investment Forum 2023" and "2023 Shenzhen Skills Competition - Laser Equipment Installation and Commissioning Program". The trinity of exhibition, conference and competition helps to create a grand event in the laser industry.



一直以来,深圳激光展专注于激光生产与加工技术、激光器与光电子、光学与光学制造、测试测量等激光、光电智能制造领域,致力于激光全产业链条展示,为激光行业同僚打造一个高价值商贸对接平台。2023深圳激光展集结一众知名展商大咖,大族、海目星、光韵达、联赢、盛雄、锐科、逸飞、瑞铁、创鑫、大鹏、韵腾、凯普林等激光智能制造企业齐聚华南市场,丰富首发新品震撼亮相。众多展商多维度、全方面地展示激光技术应用及产品,直击行业痛点,带来最新解决方案,共同为应用企业降本降存、提质增效出谋划策。展会现场,大族通用激光切割机G系列/G3015-L、光韵达高分辨率微米级3D 打印机、联赢蓝光复合激光器系列/UW-B4310M、公大1000W单模连续绿光激光器、瑞铁UBB-170/3200油电混合数控折弯机等明星产品备受瞩目,吸引众多参展观众聚集。

LASERFAIR SHENZHEN has always been focusing on laser production and processing technologies, laser devices and optoelectronics, optics and optical manufacturing, testing and measurement and other laser and optoelectronic intelligent manufacturing, and has been dedicated to the display of the entire laser industry chain to create a highvalue business platform for peers in the laser industry. This year, LASERFAIR SHENZHEN gathered a number of well-known exhibitors. Han's Laser, Hymson Laser, Sunshine Laser, United Winners, Strong Laser, Raycus, Yifi, DERATECH, Max Photonics, Dapeng, Inte, BWT and other laser intelligent manufacturing enterprises gathered in the South China market, and debuted a wealth of new products. Many exhibitors showcased their respective laser technology applications and products in a multi-dimensional and comprehensive way, focusing on the industry pain points, and providing the latest solutions for companies to reduce costs, minimize inventory, and improve quality and efficiency. On the exhibition site, the general laser cutting machine G series/G3015-L of Han's Laser, the highresolution micron-level 3D printer of Sunshine Laser, the blue composite laser device series/UW-B4310M of United Winners, the 1000W single-mode continuous green laser device of Gongda, the UBB-170/3200 oil-electricity hybrid CNC bending machine of DERATECH and other star products attracted many visitors' attention.







延续"全国激光看广东,广东激光看深圳"的佳话,下一届LMN世界激光制造大会将继续落户深圳,并于2024年6月19-21日召开。让我们相约下一届大会再见!

The next LMN World Laser Manufacturing Conference will be hosted in Shenzhen on June 19-21, 2024.



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LMN 2023世界激光制造大会 暨第十六屆深圳国际激光与智能装备、大子技术博览会

MN WORLD LASER MANUFACTURING CONFERENCE 2023

LASERFAIR SHENZHEN 2023

演讲嘉宾 SPEAKERS

2023世界激光制造大会 WORLD LASER MANUFACTURING CONFERENCE 2023

河田聪
Satoshi Kawata
美国光学学会主席(2022年)
Nanophoton创始人兼主席
大阪大学名誉教授
日本理化学研究所名誉科学家
2022 President of Optica
Founder and Chairperson, Nanophoton
Professor Emeritus, Osaka University

Honorary Scientist, RIKEN, Japan

演讲主题:利用光学技术制作三维纳米结构: 自上而下与自下而上的方式

Topic: Optical 3D nano-fabrication:
Top-down and bottom-up approaches



钟敏霖 教授 Prof. Minlin Zhong 清华大学长聘教授 Tenured Professor of Tsinghua University

演讲主题: 超快激光诱导纳米结构高效水分解制氢
Topic: Ultrafast Laser Inducing Nanostructures
for Efficient Water Splitting Hydrogen Generation



比特·诺施旺德教授 Prof. Beat Neuenschwander 瑞士光电联合会创始人之一 瑞士光学和显微学会副会长

One of the Initiators of SWISSPHOTONICS

Vice President of Swiss Society for Optics and Microscopy

演讲主题:利用轴同步实现超快脉冲激光高精度 微加工旋转对称部件

Topic: Ultra-Fast Pulsed Laser High Precision Micromachining of Rotational Symmetric Parts by Synchronization of Axes



特罗菲莫夫 维亚切斯拉夫 教授 Prof. Vyacheslav Trofimov

原莫斯科国立大学教授 现华南理工大学教授

Professor of South China University of Technology

演讲主题:俄罗斯激光科学简述

Topic: Laser Science in Russia: Brief Review



金晓 Xiao Jin

常熟市尚湖镇人民政府 党委书记 Party Committee Secretary of Shanghu Municipal Government, Changshu

演讲主题: 常熟激光产业园及研究所推介 Topic: Introduction of Laser Industrial Park and Research Institute in Changshu



演讲嘉宾(部分) SPEAKERS (PARTIAL)

沈平 教授
Prof. Ping Shen
南方科技大学电子与电气工程系 讲席教授
系科研副主任

Professor of Southern University of Science and Technology

演讲主题:光纤技术与应用

Optical Fiber-Based Technologies & Applications



陈烽 教授 Prof. Feng Chen 西安交通大学 教授 Professor of Xi'an Jiaotong University

演讲主题: 飞秒激光微纳工程制造 Topic: Femtosecond Laser Micro-nano Engineering Manufacturing

演讲嘉宾(部分) SPEAKERS (PARTIAL)



邱建荣 教授Prof. Jianrong Qiu
浙江大学 教授
Professor of Zhejiang University

演讲主题:激光玻璃加工技术 Topic: Laser Applications in Glass Fields



牛岗 Gang Niu 广东国志激光技术有限公司 首席技术官 CTO, GZ Photonics Co., Ltd.

演讲主题: 激光技术在陶瓷基板加工中的应用 Topic: Application of Laser Technology in

Ceramic Substrate Processing



赵全忠 教授
Prof. Quanzhong Zhao
中国科学院上海光学精密机械研究所

Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences

演讲主题: 超快激光封接技术及进展

Topic: Ultrafast Laser Sealing Technology and Advances



冷奇兵 William Leng

深圳市贝腾科技有限公司 高质量发展政企合作总监 Shenzhen Biteman Technology Co., Ltd. Director of High-quality Development Government-Enterprise Cooperation

演讲主题:压缩空气质量升级帮助激光精密加工降本增效、工艺品质效率提升!

Topic: Upgrading the quality of compressed air helps reduce costs and improve efficiency in laser precision processing, as well as enhance the quality and efficiency of the manufacturing process



王学孟 Xuemeng Wang

东莞市盛雄激光先进装备股份有限公司 首席技术官 CTO, Dongguan Strong Laser Advanced Equipment Co., Ltd.

演讲主题: 大功率超快激光加工在光伏和锂电行业的创新应用

Topic: Innovative Applications of High Power Ultrafast Laser Processing in the Photovoltaic and Lithium Battery Industries



周志辉 Zhihui Zhou

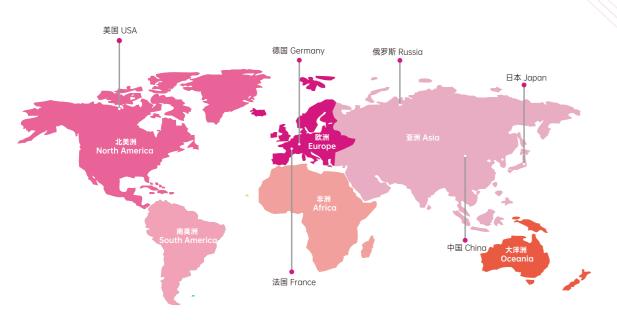
深圳市创科达精密机电有限公司 液晶屏事业部技术研发总监 Director of Technology R&D, LCD Division, Shenzhen CKD Precision Mechanical & Electrical

演讲主题:液晶屏亮点微加工应用工艺

Topic: LCD Screen Repair Application



2023世界為光制造大会 WORLD EASER MANUFACTURING CONFERENCE 2023



参会人员数据分析 ATTENDEE ANALYSIS

参会人数 Number of attendees

LMN 2023世界激光制造大会为期三天,首日为全体大会,另两日分别召开围绕3C、"双碳"、新能源、储能等热点话题的数场分论坛与平行会议,共迎来听众2063人次,较上届增长72%,客座率创下新高。

LMN World Laser Manufacturing Conference 2023 lasted for three days, with the first day for a plenary session, and the other two days for several subforums and parallel sessions around 3C, carbon peak and neutrality, new energy, energy storage and other hot topics, with attendances of 2063, up by 72% over the previous sessions, and a record high attendance rate.

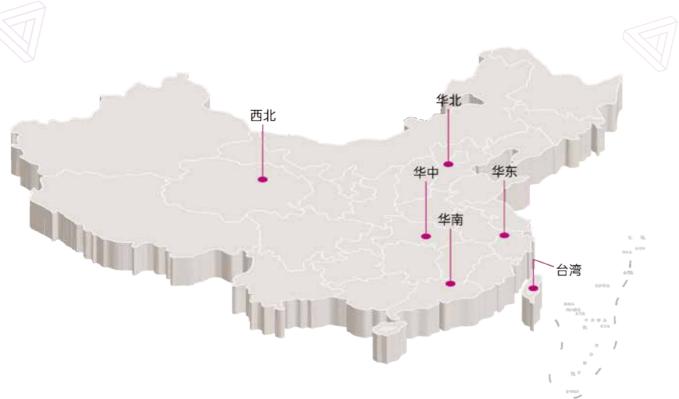
演讲人区域分布 Regional distribution of speakers

本次大会共邀请了6个国家和地区的50多位激光行业领军人物和权威专家与会演讲。

More than 50 laser industry leaders and authoritative experts from 6 countries and regions were invited to speak at the conference.

- 中国 China 85% 美国 USA 2%
- 法国 France 2%
- 德国 Germany 5% 俄罗斯 Russia 3% 日本 Japan 3%

参会人员数据分析 ATTENDEE ANALYSIS



听众区域分布 Regional distribution of Attendees

从专业听众区域分布来看,国内专业听众占89%,国际专业听众占11%。

In terms of the regional distribution of the professional attendees, domestic attendees accounted for 89% and international attendees accounted for 11%.

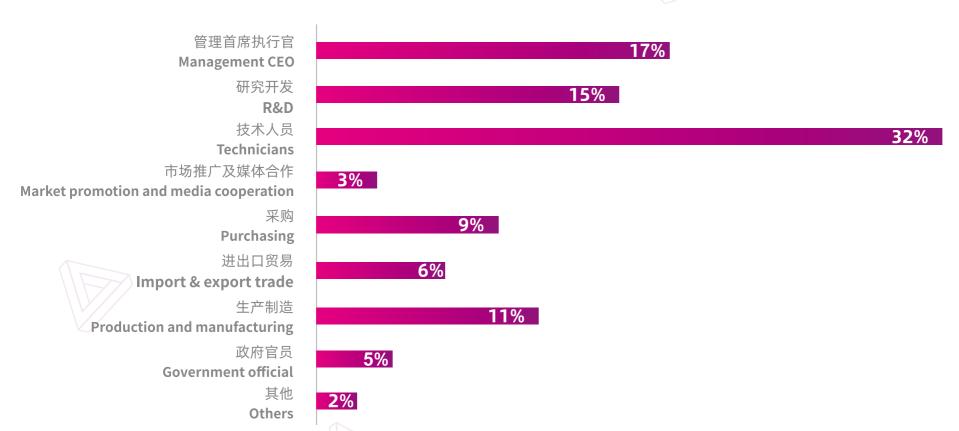
- 华南地区 South China 46%
- 华东地区East China 14%
- 华中地区 Central China15%
- 华北地区 North China 4%
- 西北地区 Northwest China 3%
- 大陆其他地区 Other Areas in Mainland China 5%
- 港澳台地区 Hong Kong, Macao and Taiwan 2%
- 国际听众International Attendees 11%

参会人员数据分析 ATTENDEE ANALYSIS



听众职业分析

Occupational analysis of attendees





LMN 2023世界激光制造大会 暨第十六尼深圳国际激光与智能装备、大子技术博览会

LMN WORLD LASER MANUFACTURING CONFERENCE 2023

LASERFAIR SHENZHEN 2023

评语 TESTIMONIALS

2023世界第一大制造大会 WORLD LASER MANUFACTURING CONFERENCE 2023



河田聪 Satoshi Kawataa

美国光学学会主席(2022) Nanophoton创始人兼主席 大阪大学名誉教授 日本理化学研究所名誉科学家 2022 President of OPTICA
Founder and Chairperson, Nanophoton
Professor Emeritus, Osaka University
Honorary scientist, RIKEN, Japan

非常荣幸能够在LMN 2023世界激光制造大会的全体大会上,发表关于三维激光纳米制造的演讲。这是我自2018年以来再次来到中国,特别高兴能与中国的业内同仁进行面对面交流。在此期间,我还参观了LASERFAIR深圳激光展,展会内容丰富,精彩纷呈,让我了解了一系列中国的激光产品。希望下次有机会能够带上我的激光拉曼显微镜公司——Nanophoton的同事们从日本一起来到中国参观。

It was my great pleasure to give a plenary talk on 3D laser nano-fabrication in LMN conference 2023. I was particularly happy to meet Chinese colleagues in person as my first visit to China since my last visit in 2018. I also visited LASERFAIR, which was an extremely wonderful show for me to know a variety of products in China. I hope I will bring colleagues from my laser Raman microscope company Nanophoton from Japan for the next time.

嘉宾评语 FROM SPEAKERS



钟敏霖 教授 Prof. Minlin Zhong

清华大学长聘教授

Tenured Professor of Tsinghua University

本届LMN世界激光制造大会是疫情之后的第一次纯线下会议,连同第十六届深圳国际激光与智能装备、光子技术博览会以及并行的2023激光技术在3C电子行业应用大会等会议,吸引了广泛的行业人员参与。LMN 2023充分体现了会议的世界性和报告内容的丰富性,会议由2018年诺贝尔物理学奖获得者法国科学家杰哈·莫罗教授视频致辞,报告人包括日本大阪大学名誉教授河田聪教授、中国清华大学钟敏霖教授、华南理工大学特罗菲莫夫·维亚切斯拉夫教授、中国南方科技大学沈平教授、瑞士光学和显微学会副会长比特·诺施旺德教授等,报告内容涵盖光学纳米三维结构制造、超快激光微纳制造、俄罗斯激光科学历程、光纤技术与应用、超快激光精密微加工等等。我相信LMN世界激光制造大会必将越来越有吸引力和影响力。

This year's LMN World Laser Manufacturing Conference was the first offline conference after the epidemic. As a concurrent event of the LASERFAIR SHENZHEN 2023, LMN 2023, together with several parallel sessions such as the "Laser Technology Application in 3C Electronics Industry Conference 2023", attracted a wide range of industry participants. LMN 2023 fully reflected the internationalization of the conference and richness of the report contents. Prof. Gerard Mourou, the 2018 Nobel Laureate in Physics, delivered a video speech on the conference. The guest speakers include Prof. Satoshi Kawata, Professor Emeritus of Osaka University, Prof. Minlin Zhong from Tsinghua University, Prof. Vyacheslav Trofimov from South China University of Technology, Prof. Ping Shen from Southern University of Science and Technology and Prof. Beat Neuenschwander, Vice President of Swiss Society for Optics and Microscopy. The reports covered the topics of optical 3D nano-fabrication, ultrafast laser nano-fabrication, history of the laser science in Russia, optical fiber-based technologies & applications, ultrafast laser micro processing, etc. I believe that LMN World Laser Manufacturing Conference will become more and more attractive and influential.

嘉宾评语 FROM SPEAKERS



特罗菲莫夫 维亚切斯拉夫 教授 Prof. Vyacheslav Trofimov

原莫斯科国立大学教授 Professor of South China University of Technology 现华南理工大学教授

很荣幸出席LMN 2023世界激光制造大会。这是疫情后我在中国参加的第一次国际会议,会议在筹备和组织方面都十分充分。作为演讲嘉宾,我很荣幸能与来自不同国家的激光制造业引领者分享俄罗斯激光发展现状。同期深圳激光展上的展品也令人印象深刻,印证了中国近年来在超快激光、绿激光和激光应用方面的快速发展。可以说,LMN世界激光制造大会是促进世界激光行业共同交流与进步的重要平台。

It is a great honor to attend the LMN 2023 World Laser Manufacturing Conference. This was the first international conference I participated in China after the epidemic, and the conference was very well prepared and organized. As a speaker, it is my pleasure to share the current laser development in Russia with the world's foremost experts from the laser manufacturing industry. The products on the concurrent exhibition - LASERFAIR SHENZHEN were also very impressive, indicating China's rapid development in the direction of ultrafast lasers, green light and laser applications in recent years. LMN is an important platform to promote the common exchange and progress of the world's laser industry.



沈平教授 Prof. Ping Shen

南方科技大学 Professor of Southern University of Science and Technology

作为业内最受瞩目的激光制造行业盛会,LMN 2023世界激光制造大会对于推动全球激光科技的发展和应用具有重要意义。此次大会汇聚了来自全球各地的专家、学者和企业代表,共同探讨激光制造领域的最新技术和发展趋势,促进了激光制造行业的交流和合作。大会涵盖了从激光器、光学元件到激光制造设备和应用等多个方面的主题,展示了激光制造在汽车制造、航空航天、医疗器械、电子信息等领域的广泛应用,为各行业提供了更多的解决方案和创新思路。LMN世界激光制造大会的成功举办将进一步推动激光制造技术的发展和应用,为全球经济的可持续发展注入新的动力。

As the most popular laser manufacturing event in the industry, LMN World Laser Manufacturing Conference 2023 is of great significance in promoting the development and application of global laser science and technology. The conference brings together experts, scholars and enterprise representatives from all over the world to discuss the latest technology and development trend in the field of laser manufacturing, and promotes the communication and cooperation in the laser manufacturing industry. The conference covered a wide range of topics from lasers and optical components to laser manufacturing equipment and applications, demonstrating the wide application of laser manufacturing in automobile manufacturing, aerospace, medical devices, electronic information and other fields, providing solutions and innovative ideas for various industries. The successful organization of the LMN World Laser Manufacturing Conference will further promote the development and application of laser manufacturing technology and inject new impetus for the sustainable development of the global economy.



东莞新科电子有限公司 Dongguan Xinke Electronics Co., Ltd

有幸参加了LMN 2023 世界激光制造大会,近距离聆听广东省激光与增材制造、精密仪器设备战略性新兴产业集群"链长"袁宝成,中国光学光电子行业协会理事长应明炯,2018年诺贝尔物理学获奖者杰哈.莫罗教授,德国汉诺威展览公司高级副总 裁阿诺·海希以及宝安区领导的致辞,充分感受到全世界对激光技术的重视和远大前景。感谢大会主办方的接待与安排,希望大会越办越好。

It's my great honor to participate in LMN World Laser Manufacturing Conference 2023, and listened closely to the speeches of Yuan Baocheng, the "Chain Leader" of Guangdong Laser and Additive Manufacturing, Precision Instrumentation and Equipment Strategic Emerging Industry Cluster; Ying Mingjiong, Chairman of China Optics and Optoelectronics Manufacturers Association; Prof. Gerard Mourou, 2018 Nobel Laureate in Physics; Arno Reich, Senior Vice President of Deutsche Messe AG as well as the officials of Bao'an District. I was fully impressed by the world's attention to laser technology and it's great prospects. Thanks to the organizers for their reception and arrangement. Wish the conference a splendid future.



比亚迪电子股份有限公司 BYD Electronic Co., Ltd

LMN 世界激光制造大会是交流和获取激光方面新技术和新知识的重要渠道,我司组织研发,工艺,产品开发,采购等技术骨干合计60人左右参加。通过大会我们了解到了行业高端技术,接触了新的供应商,学习和获取了激光相关的技术和资料,与 供应商对于目前设备上的技术和问题难点进行了交流。本次参会可谓收获满满,对于我们后续激光工艺相关设备的设计和研发有极大的帮助。

在此非常感谢大会主办方的邀请和对我司的支持和帮助,感谢提供这么好的学习和技术交流的平台。最后祝愿大会开展顺利,规模和影响力越做越大,人气越来越旺。

LMN World Laser Manufacturing Conference is an important channel for exchanging and acquiring new technology and knowledge in the field of laser. Our company organized about 60 core personnel from departments of R&D, technology, product development and purchasing to participate in the conference. Through the conference, we learned about high-end technology, developed new suppliers, acquired laser-related technology and information, and exchanged with suppliers about the current equipment technology and difficulties. The conference has yielded fruitful achievements, which will greatly help us in the future design and development technology-related equipment.

We appreciate the organizers for their invitation and support, and for providing such a good platform for learning and technical exchanges. Finally, I wish the conference a smooth progress, with increasing scale, influence and popularity.



大冶摩托车技术有限公司 Tayo Motorcycle Technology Co., Ltd

我们公司组团参加LMN 世界激光制造大会已经好几届了,今年的大会组织的非常好,感谢会务组的热情接待!通过这次大会我们公司对接了深圳大族激光,深入了解了大族激光设备的优势,下一步我们准备进一步洽谈设备的采购需求,加深合作。 这都得益于主办方的精心组织,能够让我们对各种设备进行对比了解,从而选择适合我们公司的设备。我们也希望通过大会能够了解和学习更多的先进制造设备和工艺,最后祝愿大会越办越好!

Our company has been participating in the LMN World Laser Manufacturing Conference for several times, and this year's conference was very well organized. Thanks to the warm reception of the organizing committee. Through this conference, our company connected with Shenzhen Han's Laser and gained a deeper understanding of the advantages of Han's laser equipment. Our next plan is to further negotiate equipment procurement needs and deepen cooperation between two companies. Thanks to the meticulous organization, which allows us to understand and compare various devices so that we can choose the suitable equipment for our company. We also hope to learn more about advanced manufacturing equipment and processes through the conference. Finally, we wish the conference every success and a bright future.



WORLD LASER MANUFACTURING CONFERENCE 2023

媒体反馈 MEDIA VOICES

·大众媒体 Mass Media

LMN世界激光制造大会特别邀请了20余家主流大众媒体赴现场报道,包括深圳卫视、南方都市报、广州日报、南方日报、深圳晚报、深圳晶报、深圳特区报、深圳新闻网、香港商报、宝安日报和香港大公文汇报等。会议期间共吸引了80多家国内媒体对大会及同期活动进行深度报道。

The 2023 LMN World Laser Manufacturing Conference specially invited more than 20 mainstream mass media to report on site, including Shenzhen TV, Southern Metropolis Daily, Guangzhou Daily, Nanfang Daily, Shenzhen Evening News, Shenzhen Jing Bao, Shenzhen Special Zone Daily, Shenzhen News, Hong Kong Commercial Daily, Bao'an Daily and Hong Kong Ta Kung Wen Wei Po. During the conference, more than 80 domestic media were attracted to report on the conference and concurrent events.



·线上推广 Online Media

线上通过微信公众号、行业协会、邮件推送等多渠道进行推广。

The 2023 LMN World Laser Manufacturing Conference was promoted through multiple channels including Wechat official account, industry associations and EDM.





MN 2023世界激光制造大会 暨第十六房深圳国际激光与智能装备、光子技术博览会

MN WORLD LASER MANUFACTURING CONFERENCE 2023

LASERFAIR SHENZHEN 2023

大会报名

CONFERENCE REGISTRATION

A A A A SER MANUFACTURING CONFERENCE 2023

演讲申请

APPLY FOR A SPEAKER

感谢您对LMN世界激光制造大会的关注与支持! 如需申请演讲席位,请按如下步骤及时提交文件。经大会组委会审核评 定后,将及时与您联系。

Thank you for your attention and support to LMN World Laser Manufacturing Conference!

If you need to apply for a lecture seat, please submit the documents in time according to the following steps. After review and evaluation by the organizing committee of the conference, we will contact you as soon as possible.

步骤: 1. 演讲人基本信息及演讲题目请于确认演讲后,尽快提交

2. 演讲PPT请务必于2024年5月1日前提交给大会审核

Steps: 1. Please submit your introduction and speech topic as soon as possible.

2. Please submit your presentation or slides before May 1, 2024

照片要求 Photo requirement:

- 1. 请单独提供您的个人照片 Please send one of your personal pictures
- 2. 正装穿着 Formal suits
- 3. 300DPI以上分辨率 Resolution 300dpi above



以下表格必须提交中英文内容 Please fill in the form in bilingual

		中文		English
演讲嘉宾 Speaker Name	1			
单位名称 Company Name	<i>y</i>			
职务 Job Title				
演讲题目 Topic				
演讲摘要 Abstract (300字以内 less than 300 words)				
演讲人联系方式 Speaker Contact	Tel		Mobile	
Info	Fax		Email	
个人简介 Personal profile				
公司/单位简介 Company Profile				

赞助申请

APPLY FOR A SPONSOR

在会前、会中及会后,我们将为赞助商提供众多广告赞助机会,宣传企业形象,深入参与本届大会,广告赞助机会先到先得,如有兴趣请填写如下相关信息报名赞助。

We offer numerous sponsorship programs before, during and after the conference to promote sponsors' image and let them fully participate in the conference. The sponsorship opportunities are on a "first come first served" basis. Please fill in the following form if you are interested.

赞助申请表 Sponsor Application Form

	中文	English	
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公司/单位简介 Company Profile			
备注	1.您想赞助的项目 The project you want to sponsor 2.您想分享的题目及摘要内容(如有)The topic and abstract of your speech (if any)		

听众注册

REGISTRATION FOR ATTENDEES

如果您有兴趣成为LMN 2024世界激光制造大会听众,请填写如下相关信息。

If you are interested in becoming an attendee of LMN 2024 World Laser Manufacturing Conference, please fill the following form.

听众报名表 Registration Form

	中文		English		
姓名 Name	1				
单位名称 Company Name	<i>y</i>				
职务 Job Title					
联系方式 Contact Info	Tel		Mobile		
	Fax		Email		
备注 PS	1.您想听的报告内容: 1.The speech topic you are interested in 2.您希望哪一位专家/企业 做报告: 2.Whose speech are you interested in 3.您在生产中遇到的痛点难点: 3. Difficulties you have encountered in the process of production				







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合作机构:广东省激光行业协会



联系方式 CONTACT US





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Deutsche Messe



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