会议详细议程终版（Final Program）

2025 International Conference on Display Technology
March 22-25, 2025 (Saturday - Tuesday)
Xiamen Fliport C&E Center
Xiamen, China

Opening Remark
开幕式
Sunday, March 23/14:00-14:30/ Grand Room

Plenary Session
大会主旨演讲
Sunday, March 23/14:30-18:30/ Grand Room
Chair: Qijun Yao (姚绮君), Shanghai Tianma Microelectronics Co., Ltd.
Co-Chair: Kai Huang (黄凯), Xiamen University

TBD (14:30-14:55)
Rong Zhang (张荣), Xiamen University

Title: Emerging Technologies for a Sustainable Electronic Industry (14:55-15:20)
Rodrigo Martins, European Academy of Sciences, NOVA School of Science and Technology

Automotive Display Trends and Tianma's Strategy (15:20-15:45)
Wei Cheng (成为), Tianma Microelectronics Co., Ltd.

Title: Advancing the Human-Computer Interface Through the Development of Polarization Volume Hologram and Etched Silicon Carbide Waveguides (15:45-16:10)
Barry Silverstein, Meta

Title: Advancements in Display Driver Semiconductor Technology: Shaping the Future of Visual Experiences (16:10-16:35)
Juergen Daleiden, GlobalFoundries

Title: Revolutionizing OLED Display Manufacturing with MAX OLED Solution (16:35-17:00)
Yusin Lin (林裕新), Applied Materials

Title: Image- and Non-image-forming Vision: Implications in Display and Illumination (17:00-17:25)
Tian Xue (薛天), University of Science and Technology of China

Title: Integral Imaging Light Field 3D Display with High Performance (17:25-17:50)
Qionghua Wang (王琼华), Beihang University

Short Course (Language is Chinese)
短期课程
Short Course 1
Saturday, March 22/ 9:00-12:00/ Function Room 401
Title: **Principles and Fabrication Technique of Organic Light-Emitting Diodes**
有机发光二极管及其制备技术
Liangsheng Liao (廖良生), Soochow University

Short Course 2
Saturday, March 22/ 9:00-12:00/ Function Room 403
Title: **The Design and Fabrication of Photonic Devices for Novel Displays**
面向新型显示的光子器件设计与制造技术
Wen Qiao (乔文), Soochow University

Short Course 3
Saturday, March 22/ 9:00-12:00/ Function Room 405-A
Title: **Human Visual and Non-visual Effects Evaluation of Display Equipment Based on Human Factor Engineering**
基于人因工程的显示设备人眼视觉与非视觉效应评估
Yandan Lin (林燕丹), Fudan University

Short Course 4
Saturday, March 22/ 9:00-12:00/ Function Room 405-B
Title: **Fundamental and Recent Progress in Oxide-TFT Research & Development**
氧化物薄膜晶体管的基础及其研发进展
Qun Zhang (张群), Fudan University

Seminar (Language is Chinese)
专题技术讲座
Seminar 1
Saturday, March 22/ 14:00-15:30/ Function Room 403
Title: **The Sustainable Evolution of the Display Product Supply Chain: Trends, Opportunities, and Challenges**
显示产品产业链在可持续发展的趋势，机遇与挑战
Xinyue Zhao (赵心悦), TÜV Rheinland (Shenzhen) Co., Ltd.

Seminar 2
Saturday, March 22/ 15:45-17:15/ Function Room 403
Title: **The Evaluation and International Standardization of Metaverse and Virtual Reality/Augmented Reality (VR/AR) Products**
元宇宙与虚拟现实/增强现实(VR/AR)产品的测评及国际标准化
Xi Mou (牟希), Hangzhou Santai Testing Technology Co., Ltd.

Seminar 3

Saturday, March 22/ 14:00-15:30/ Function Room 405-A
Title: **Human-Centric Health Lighting and Advanced Display Technologies**
以“人”为本的健康照明与前瞻显示技术
Chien-Yu Chen (陈建宇), Taiwan University of Science and Technology

Seminar 4
Saturday, March 22/ 14:00-15:30/ Function Room 402
Title: **The Device Analysis of QLED toward Industrialization**
面向产业化的 QLED 器件分析研究
Haizheng Zhong (钟海政), Beijing Institute of Technology

Seminar 5
Saturday, March 22/ 15:45-17:15/ Function Room 402
Title: **AI Technologies for Human Machine Interaction in Display Devices**
显示设备人机交互中的 AI 技术原理、应用与发展
Yuyu Liu (刘玉宇), BOE Technology Group

Seminar 6
Saturday, March 22/ 14:00-15:30/ Function Room 405-B
Title: **Fundamental Design of Waveguides**
光波导设计基础
Xingzhou Tu (涂醒洲), Rayboch

Seminar 7
Saturday, March 22/ 15:45-17:15/ Function Room 405-B
Title: **Printed OLED Display Technology**
印刷 OLED 显示技术
Baixiang Han (韩佰祥), TCL CSOT Technology Co., Ltd.

Display Technology and Industry Standards Forum (Language is Chinese)
显示技术和产业标准论坛
Saturday, March 22/ 9:00-12:00/ Function Room 402

Micro/Mini LED Display Core Technology Road Map Forum
Micro/Mini LED 显示关键技术路线研讨会
Saturday, March 22/14:00-18:00/ Function Room 401

JSID Journal Publication Training Session
JSID 期刊发表培训会
Saturday, March 22/ 15:45-17:45/ Function Room 405-A

Display Industry Future Technology Strategy Summit (FTS) (Invited only)
显示产业未来技术战略峰会（显示行业领袖峰会）（闭门会议）

Sunday, March 23/9:30-12:00/ Grand Ballroom AB, WuTong Fliport Hotel, Xiamen

New Technology and New Product Public Release
新技术新产品发布会
Sunday, March 23/9:05-11:05/ Hall B

Exhibitor Forum 1
展商论坛 1
Sunday, March 23/11:05-11:55/ Hall B

Exhibitor Forum 2
展商论坛 2
Monday, March 24/13:30-16:20/ Hall B

Dedicated Time for Poster Session
海报报告
Monday, March 24/8:45-12:00/ Hall B

Roadshow of Innovation & Entrepreneurship Projects
创新创业项目路演
Monday, March 24 /9:00-12:00/ Hall B

Business Conference
商业会议
Monday, March 24/9:00-12:00 & 14:00-17:30/ Function Room 405

AI for Imaging and Display Special Forum
AI 赋能成像与显示专题论坛
Monday, March 24/9:00-12:00/ Grand Room C
Chair: Xingqun Jiang (姜幸群), BOE Technology Group Co., Ltd.

1. **Ignites More Applications, More Industries & More Values (9:00-9:25)**
   Wendy Fang (方影超), DISCIEN
2. **Statistical Machine Learning with Image Data Representation in AI for Science Applications (9:25-9:50)**
   Xi Chen (陈曦), Fudan University
3. **The Application of the HMI Platform Based on Kanzi Engine in Intelligent Vehicles (9:50-10:15)**
   Xinhui Yang (杨新辉), Thundersoft
4. **AI^2 for Display Materials (10:15-10:40)**
   Jiaxin Zheng (郑家新), Peking University Shenzhen Graduate School
5. **AI Technology Enhances the Operational Efficiency of BOE in Fuzhou (10:40-11:05)**
   Mingge Yin (尹明格), Fuzhou BOE Optoelectronics Technology Co., Ltd.
6. **Rockchip AI-Driven Display Solution Introduction (11:05-11:30)**
   Sinwel Zhou, Rockchip Electronics Co., Ltd.

Human Factor and Visual Health Special Forum

人因与视觉健康专题论坛

Monday, March 24/9:00-12:00/ Grand Room A

Chair: Yunhong Zhang (张运红), China National Institute of Standardization

Co-Chair: Weidong Huang (黄卫东), TCL CSOT

1. **Electronic Screen Exposure Induces Myopia in Juvenile Monkeys (9:00-9:25)**
   Xintian Hu (胡新天), Kunming Institute of Zoology, CAS
2. **Light/Display and Visual Health: Current Status and Future Prospects (9:25-9:50)**
   Jiawei Zhou (周佳玮), Wenzhou Medical University
3. **Exploration and Practice of Healthy Display Technology in the Prevention and Control of Myopia Among Adolescents (9:50-10:15)**
   Yunan Wang (王雨楠), BOE Health Technology Co., Ltd.
4. **Application of Human Factors Indicators in Visual Health and Comfort Research (10:15-10:40)**
   Mia Xie (谢明阳), TÜV Rheinland (Shanghai) Co., Ltd.
5. **The Evolution of Display Technology: The Future of Visual Health and Perception (10:40-11:05)**
   Ming-Jong Jou (周明忠), TCL CSOT
6. **Color Image Enhancement for Color Deficient People and Elderly People (11:05-11:30)**
   Ruiqing Ma (马瑞青), Taiyuan University of Technology
7. **A Brief Analysis of the Impact of Ambient Light on Visual Health - Introducing a New Dimension of Human Factors Evaluation (11:30-11:55)**
   Chelsea Liang (梁倩霞), SGS

Metaverse and Display Special Forum

元宇宙与显示专题论坛

Monday, March 24/9:00-12:00/ Function Room 402

Chair: Lijun Wang (王立军), Xidian University

Co-Chair: Wen Qiao (乔文), Soochow University

1. **SiC Photonics: Design and Fabrication of Silicon Carbide Nanophotonic Devices (9:00-9:25)**
   Min Qiu (仇旻), Westlake University
2. **Design and Fabrication of Augmented Reality Display Systems based on Holographic Optical Elements (9:25-9:50)**
   Dewen Cheng (程德文), Beijing Institute of Technology/ Beijing NED Ltd.
3. **Versatile Light Field Manipulation Enabled by Dielectric Metasurfaces (9:50-10:15)**
   Cheng Zhang (张诚), Huazhong University of Science and Technology
4. **Polarization Volume Grating Based Waveguide Display (10:15-10:40)**
   Yuning Zhang（张宇宁), Southeast University/ Nanjing Parallel Vision Technology Co., Ltd.
5. **Metaverse Innovation and Breakthroughs-Technical solutions for 4K VR/AR Display (10:40-11:05)**
   Min Zhang (张敏), BOE Technology Group Co., Ltd.
6. **10 Gigabit Optical Network Driver The New Industry of The Shutter 3D Technology (11:05-11:30)**
   Zesan Chang (常泽山), Huawei

Young Leader Conference

中韩青年领袖论坛

Monday, March 24/9:00-12:00/ Meeting Room 205

Chair: Qijun Sun (孙其君), Beijing Institute of Nanoenergy and Systems, Chinese Academy of Sciences

1. Van der Waals 3D Assembly of 2D Nanomaterials for Scalable Electronics (9:00-9:20)
Joohoon Kang, Yonsei University

2. The Needs and Prospects of Interdisciplinary Intersection for 3D Imaging and Display (9:20-9:40)
Lingyu Ai, Jiangnan University

3. Strain-Invariant Stretchable Radio-Frequency Electronics (9:40-10:00)
Yei Hwan Jung, Hanyang University

4. Visual Fatigue-free near-eye Display and 3D Display (10:00-10:20)
Zi Wang, Hefei University of Technology

5. Glasses Free 3D Display based on Time Sequential Method Using High Frame Rate Display Screen (10:30-10:50)
Zhibo Sun, The Hong Kong University of Science and Technology

6. Strain Sensor for Skin Interface and Implantable Device (10:50-11:10)
Sang Min Won, Sungkyunkwan University

7. 10-360Hz Wide Refresh Rate Oxide LCDs (11:10-11:30)
Zhonghao Huang, BOE Technology Group Co., Ltd.

8. AI-Enabled OLED Materials Discovery (11:30-11:50)
Wei Xu, TCL AI Lab

9. Research on Accurate Color Reproduction in Holographic Displays (11:50-12:10)
Chun Chen, Seoul National University

Display Industry Carbon Emission Evaluation Special Forum

显示产业碳足迹评估技术研讨会

Monday, March 24/9:00-11:30/ Function Room 401

Chair: Xinyue Zhao (赵心悦), TÜV Rheinland (Shenzhen) Co., Ltd.

1. **Sustainable Development Strategies for Display Industry Chain Enterprises (9:00-9:25)**
   Yifang Liu (刘轶芳), Central University of Finance and Economics
2. **Net-Zero Transition in Tech Manufacturing: Product Lifecycle Management and Low-Carbon Innovation Practices (9:25-9:50)**
   Xun Gong (龚勋), Lenovo
3. **From Innovation to Green, From Manufacture to Recycle (9:50-10:15)**
   Yanbing Wu (武延兵), BOE Technology Group Co., Ltd.
4. **Tianma Low-Carbon Display Technology Roadmap Exploration (10:15-10:40)**
   Zhike Zeng(曾志科),Tianma Microelectronics Co., Ltd.
5. **Product Carbon Footprint Quantification and Mark Certification (10:40-11:05)**
   Chloe Chen (陈赟然), TÜV Rheinland (Shenzhen) Co., Ltd.

the Next-Generation Cinema Display Technology Forum

新一代影院显示技术论坛

Monday, March 24/9:00-11:00/ Function Room 403

the Postgraduate Workshop on Display Research, PGWS

两岸三地显示科技研究生论坛

Monday, March 24/8:30-12:00 & 13:30-17:00/ Gezhi Meeting Room B, WuTong Fliport Hotel

Chair: Zong Qin (秦宗), Sun Yat-sen University

Session 1: Novel Display Devices

Monday, March 24/8:35-10:05/Gezhi Meeting Room B, WuTong Fliport Hotel

Chair: Beitao Ren, The Hong Kong University of Science and Technology

PG 1.1 Improving Display Performance of Micro LED Devices through Ion Implantation for Pixel Isolation (8:35-8:50)
Zichun Li, The Hong Kong University of Science and Technology

PG 1.2 Exploration of Dual-mode Electrophoretic Display from Planar to Fiber-shaped Structure (8:50-9:05)
Jintao Shi, Sun Yat-Sen University

PG 1.3 High-Mobility Thin-Film Transistors based on PVD IZO/ALD IGO Heterojunction (9:05-9:20)
Jinwen Liu, Peking University

PG 1.4 Improvement of Light Extraction Efficiency for GaN-based Homoepitaxial Blue Micro-LED with Mesa-structure and DBR Layer (9:20-9:35)
Haonan Jiang, The Hong Kong University of Science and Technology

PG 1.5 Extremely Excellent Negative-Bias Illumination Stress Stability of Atomic Layer Deposited In–Ga–O Thin-Film Transistors (9:35-9:50)
Shengjie Yang, Peking University

PG 1.6 Multi-pixel Addressability on an Electrophoretic Display Fiber (9:50-10:05)
Weichun Chen, Sun Yat-Sen University

Session 2: Display Systems and Human Factors

Monday, March 24/10:30-11:45/Gezhi Meeting Room B, WuTong Fliport Hotel

Chair: Qimeng Wang, Sun Yat-Sen University

PG 2.1 Correcting Arbitrarily Hybrid Defocus and Astigmatism for Near-eye Displays using Two-dimensionally Displaced Alvarez Lenses (10:30-10:45)
Yi Liu, Sun Yat-Sen University

PG 2.2 Towards High-speed Wearable Eye-tracking System Using Single-pixel Detectors Array for Near-eye Displays (10:45-11:00)
Yuwei Wu, Shanghai University

PG 2.3 Discussion and Analysis of Motion Sickness in New 3D Display Technologies (11:00-11:15)
Fu-Jung Hu, Taiwan University of Science and Technology

PG 2.4 Direct-View AR Optical System Integrated with Transparent Display (11:15-11:30)
Yifan Xue, Fuzhou University

PG 2.5 Optimization of Classroom Lighting Design for Reducing Nearwork-Induced Transient Myopia (11:30-11:45)

Jie Wei, Taiwan University of Science and Technology

Session 3: Display Optics and Algorithms
Monday, March 24/13:30-14:45/Gezhi Meeting Room B, WuTong Fliport Hotel
Chair: Junhu Cai, Fuzhou University

PG 3.1 Exploring Augmented Reality with Holographic Near-eye Displays (13:30-13:45)
Xiangyu Meng, The Hong Kong University

PG 3.2 Extended-Depth-of-Field Light-Field Display Using Wavefront Coding with Image Pre-correction (13:45-14:00)
Mingjing Wang, Sun Yat-Sen University

PG 3.3 Off-axis Meta-lens in Image Stitching for Near-eye Display (14:00-14:15)
Jiahao Wu, Fuzhou University

PG 3.4 Neural Network-Based Compression for Computer-Generated Hologram (14:15-14:30)
Hyunmin Ban, The Hong Kong University

PG 3.5 Cylindrical Holographic Waveguide Near-Eye Display (14:30-14:45)
Anzi Gu, Shanghai University

Session 4: Novel Display Materials
Monday, March 24/15:15-17:00/Gezhi Meeting Room B, WuTong Fliport Hotel
Chair: Weichun Chen, Sun Yat-Sen University

PG 4.1 Perovskite Quantum Dots/Polymer Composites: Advancing Luminescent Materials for Next-Generation Display Technologies (15:15-15:30)
Junhu Cai, Fuzhou University

PG 4.2 Color Electrophoretic Display Comprising Black, White, and Blue Particles (15:30-15:45)
Yue Zhang, Sun Yat-Sen University

PG 4.3 Multi-dichroic-layer Composite Thin-film Polarizer based on Azo Dyes (15:45-16:00)
Yuechu Cheng, The Hong Kong University of Science and Technology

PG 4.4 Ga2O3/IGZO Dual-Active-Layer Thin Film Transistors for Highly Sensitive Solar Blind Ultraviolet Detection (16:00-16:15)
Zhongbin Pu, Sun Yat-Sen University

PG 4.5 Interfacial Behavior of Electrophoretic Particles in Apolar Solvents (16:15-16:30)
Debo Zeng, Sun Yat-Sen University

PG 4.6 Strategic Design of Perovskite Quantum Dot Color Filter: Simulation Program based on Photoluminescence Process (16:30-16:45)
Jianxin Song, The Hong Kong University of Science and Technology

PG 4.7 Field Emission Study of ZnO Nanowires with Atomic Layer Deposition Coated In2O3 Layer (16:45-17:00)
Haoshen Cao, Sun Yat-Sen University

Educational Model Exploration of Display Technologies
显示教育的模式探索
ICDT "Display Future Star Cup" Debate Competition (Language is Chinese)
ICDT "显示未来之星杯"辩论赛
Monday, March 24/9:00-12:00 & 14:00-17:30/ Meeting Room 203

1. **Industry-Academia Integrated Education for Graduate Students through Display Technology Debates (9:00-9:20)**

   Bo-ru (Paul) Yang, Sun Yat-sen University
2. **显示是否需要靠近/模拟自然光？香港科技大学 v.s.伊犁师范大学 (9:30-10:07)**
3. **未来头戴式显示趋势是硅基 OLED 还是 MicroLED？东南大学 v.s.福州大学 (10:15-10:52)**
4. **元宇宙的入口是 XR 吗？西安电子科技大学 v.s.福州大学 (11:00-11:37)**
5. **色域是不是越大越好？香港科技大学&深圳大学 v.s.上海大学 (14:00-14:37)**
6. **刷新率是不是越高越好？天津师范大学 v.s.华南理工大学 (14:45-15:22)**
7. **前光模组对于电子纸是利大于弊还是弊大于利？中山大学 v.s.中山大学 (15:30-16:07)**

SID Beijing Chapter Technical Committee Meeting
SID 北京分会技术委员会会议
Monday, March 24/19:00-21:00/ WuTong Fliport Hotel, Xiamen

the Award Ceremony of SID China Display Industry Award
SID 中国区显示行业奖颁奖仪式
Tuesday, March 25/9:30-10:30/ Hall B

Technical Sessions

Session 1: Projection (Projection)

Sunday, March 23/8:30-9:50/ Grand Room C

Chair: Mulin Chen (陈牧林), HOLOKOOK Co., Ltd.

1.1 *Invited Paper:* Compact Energy Saving Pico Projector (8:30-8:50)

Yury Gushcho, Longevity-122 AS

1.2 *Invited Paper:* A New Effective Way to Remove Speckles in a Laser Projection Imaging System by Well-designed Optical Structural Screen (8:50-9:10)

Mulin Chen (陈牧林), HOLOKOOK Co., Ltd.

1.3 *Invited Paper:* New Low Voltage Amplitude Modulator of Non-polarized Light with No Haze No Polarizer and High Transmittance for Lighting & Display Applications (9:10-9:30)

Anatoli Murauski, MTLCD lab, Minsk, Belarus

1.4 High Performance Screen for Ultra Short Throw Projector Called "Laser TVs" with Noble Mirror Coating by Plasma Emission Control (9:30-9:50)

Tashiro Akira, Hisense Laser Display Co., Ltd. &TVS Regza Co.

Session 2: New TFT Applications (Active-Matrix Device)

Sunday, March 23/8:30-9:50/ Function Room 401

Chair: Fa-Hsyang Chen (陈发祥), Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

2.1 *Invited Paper:* Advantages and Issues of Using Gap-type Thin Film Transistors for Optical Imaging Applications (8:30-8:50)

Ya-Hsiang Tai (戴亚翔), Taiwan Yang Ming Chiao Tung University

2.2 *Invited Paper:* Droplet Array Manipulation on Active-matrix Digital Microfluidics with Artificial Intelligence Enhanced Route Planning (8:50-9:10)

Jun Yu (于俊), Shandong University

2.3 *Invited Paper:* BEOL Integration of IGZO 2T0C DRAM (9:10-9:30)

Guanhua Yang (杨冠华), Institute of Microelectronics, Chinese Academy of Sciences

2.4 *Invited Paper:* Organic Thin-Film Transistors and Circuits for Bioelectronics (9:30-9:50)

Chen Jiang (蒋琛), Tsinghua University

Session 3: Micro-LED Chip 1 (EMQ-MicroLED)

Sunday, March 23/8:30-9:50/ Grand Room A

Chair: Weijie Guo, Xiamen University

3.1 *Invited Paper:* Precise Strain-engineering of 300 mm GaN-on-Si Micro-LED Epiwafer to Open the Path to Silicon Industry Fabs (8:30-8:50)

Atsushi Nishikawa, ALLOS Semiconductors GmbH

3.2 Invited Paper: Full-color Single-Chip SiMiP for Small/Micro-Pitch Large-Screen Displays (8:50-9:10)

Qian Sun (孙钱), Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences

3.3 *Invited Paper:* UV-A and Visible Elastic III-N Mirowire-based Light-emitting Diodes (9:10-9:30)

Ivan Mukhin, Alferov University

3.4 *Invited Paper:* Monolithic Integration of a Superhigh Resolution LED Matrix With a Si Addressing Chip (9:30-9:50)

Aliaksandr Smirnov, Belarusian State University of Informatics and Radio electronics

Session 4: The Standardization and Performance Evaluation of VR/AR/MR Products and Systems (VR/AR/MR)

Sunday, March 23/8:30-10:30/ Function Room 402

Chair: Xiaochen Zhou, GravityXR Electronics and Technology Co., Ltd.

4.1 Emerging Trends in AR/VR Displays: From Fundamental Optics to Commercial Application (8:30-8:50)

Lei Zhao (赵蕾)/ Chengzhe Chai (柴诚哲), Yongjiang Lab

4.2 *Invited Paper:* Study of Human Visual Characteristics in Holographic Displays and 3D Displays (8:50-9:10)

Zi Wang (王梓), Hefei University of Technology

4.3 Measurement of Near Eye Display Using Goniophotometer and Imaging Light Measuring Device (9:10-9:30)

Tianxing Zhu, Konica Minolta (China) Investment Ltd.

4.4 Subjective and Objective Eye-tracking Test Results of Commercial VR Products (9:30-9:50)

Tao He, GravityXR Electronics and Technology Co., Ltd.

4.5 A Viewpoint Tracing Method Based on Inertial Measurement Unit in Augmented Reality (9:50-10:10)

Hankun Lou, Southeast University

4.6 A Cognitive Evaluation Method Based on Haptic Perception Enhanced AR System (10:10-10:30)

Peiwen Luo, Southeast University

Session 5: Color Perception (Applied Vision)

Sunday, March 23/8:30-10:10/ Meeting Room 203

Chair: Zhenping Xia (夏振平), Suzhou University of Science and Technology

5.1 *Invited Paper:* The Impact of Color Matching Functions on Display Colorimetry (8:30-8:50)

Ming RONNIER Luo (罗明), Zhejiang University

5.2 *Invited Paper:* Research on a New Type of Natural Light Display Technology Based on the Characteristics of Sunlight (8:50-9:10)

Guofu Tang (唐国富), TCL China Star Optoelectronics Technology Co., Ltd.

5.3 *Invited Paper:* The Study of Perceived White Point for Wide Gamut Displays (9:10-9:30)

Shining Ma (马诗宁), Beijing Institute of Technology

5.4 Verification and Elimination of LCD Color Deviation Caused by Thickness Fluctuation of Gate Insulator Layer (9:30-9:50)

Xulin Lin, TCL China Star Optoelectronics Technology Corporation

5.5 Individual Color Matching Function to Improve Cross-media Color Reproduction (9:50-10:10)

Siyuan Song, Zhejiang University

Session 6: AI for Manufacturing Process (AI for Imaging and Display)

Sunday, March 23/8:30-10:10/ Function Room 405

Chair: Wei Xu (徐炜), TCL AL Lab

6.1 Using In-context Learning for Automatic Defect Labelling of Display Manufacturing Data (8:30-8:50)

Babar Hussain, TCL Corporate Research

6.2 AI Empowered Display Industry Innovative Breakthrough in Defect Inspection (8:50-9:10)

Tingyu Liu, BOE Technology Group Co., Ltd.

6.3 A Novel LCD Demura Algorithm Based on Deep Learning (9:10-9:30)

Yixin Xiao, TCL China Star Optoelectronics Technology Co., Ltd.

6.4 A Convolutional Neural Network Based Multiple Curve Viewing Angle Compensation Algorithm for Off-Axis Image Quality Improvement and Accurate Colour Reproduction (9:30-9:50)

Shing Kwong Wong, Nanjing ICD Microelectronic Technology Co., Ltd.

6.5 Automated Methods for Panel Defect Image Generation and Assisting Defect Detection (9:50-10:10)

Rui Zheng, BOE Technology Group Co., Ltd.

Session 7: Integration & System (Vehicle Display)

Sunday, March 23/8:30-10:10/ Meeting Room 205

Chair: ZhongSheng Luo (罗忠升), Nanosys (Shoei Electronic Material Inc.)

7.1 *Invited Paper:* Novel Automotive Display Experiences beyond Large Display Areas (8:30-8:50)

Kai Hohmann, Continental Automotive Technologies GmbH

7.2 *Invited Paper:* Smart Interior for Intelligent Cockpit (8:50-9:10)

Xiongping Li (李雄平), Tianma Microelectronics Co., Ltd.

7.3 Integrated Cockpit Concept: Sunrise, A New Horizon of Integration (9:10-9:30)

Eric Ping, Antolin / Dr. Impidjati, VIA optronics Co., Ltd.

7.4 Holographic Automotive Rear Viewing System (9:30-9:50)

Rolf-Dieter Naske, Metavista3D

7.5 Reconfigurable Cholesteric Liquid Crystal Elastomer for Head-up Display Applications (9:50-10:10)

Yuanjie Xia, Great Bay University & University of Science and Technology of China

Session 8: Lighting (Lighting)

Sunday, March 23/8:30-9:30/ Meeting Room 201

Chair: Liang Yang (杨亮), Xiamen University of Technology

8.1 *Invited Paper:* Novel Narrow-band $Mg_{0.39}Al_{2.41}O_4$: Mn^{2+} Green Phosphor with High Thermal Stability For Backlight Display (8:30-8:50)

Liang Yang (杨亮), Xiamen University of Technology

8.2 Structural Design of Ceramic Phosphors for High Power White LEDs/LDs (8:50-9:10)

Aochen Du, Yili Normal University

8.3 Optimization of Classroom Lighting Design for Reducing Nearwork-Induced Transient Myopia (9:10-9:30)

Jie Wei, Taiwan University of Science and Technology

Session 9: Mini/Micro LED Display Manufacturing (Display Manufacturing & Micro LED Joint Session)

Sunday, March 23/8:30-9:30/ Function Room 403

Chair: Honglei Ji (季洪雷), TCL

9.1 *Invited Paper:* Advanced Chip Scale Packaging for Mini-LED backlighting in TV Display Systems (8:30-8:50)

Jay Liu (刘国旭), ShineOn (Beijing) Technology Co., Ltd.

9.2 Application of Laser Assisted Bonding Technology in Micro-LED Modules of Head-up Display Products (8:50-9:10)

Wenya Tian, BOE Technology Group Co., Ltd.

9.3 A Novel Bin Mixing Transfer Technology Based on Die Bonding Equipment for Mini/Micro-LED Display (9:10-9:30)

Yatong Qiao, BOE Technology Group Co., Ltd.

Session 10: OLED Display-Architectures (OLEDs)

Sunday, March 23/10:00-11:20/ Grand Room C

Chair: Feilong Liu, South China Normal University

10.1 The Development and Future Trends of OLED Materials and Devices (10:00-10:20)

Ying Shen, Hefei Visionox Technology Co., Ltd.

10.2 *Invited Paper:* Novel Stacked Top Emitting OLEDs with Microcavity to Realize High Performance Real RGB Display (10:20-10:40)

Zhaokang Fan (范招康), Heifei BOE Joint Technology Co., Ltd.

10.3 Optimizing Sub-pixel Patterning with Photolithography by CPM Patterning Process (10:40-11:00)

Zhibin Wang, OTI Lumionics Inc.

10.4 Research Progress on the Influence of Black Organic Materials on OLED Display Residual Image (11:00-11:20)

Yunqiang Yang, Hefei Visionox Technology Co., Ltd.

Session 11: Oxide TFT 1 (Active-Matrix Device)

Sunday, March 23/10:00-11:40/ Function Room 401

Chair: Jun Yu (于俊), Shandong University

11.1 *Invited Paper:* Relative Gate Placement in Multimodal Thin-film Transistors for Negligible Impact on DC Characteristics (10:00-10:20)

Radu Sporea, University of Surrey

11.2 Impact of Water on the Growth and Performance of Oxide Semiconductor Thin-film Transistors (10:20-10:40)

Lingyan Liang, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences

11.3 Enhanced Mobility and Stability of Solution-processed ITO/IGO Heterogeneous Bilayer Metal Oxide Transistor (10:40-11:00)

Meng Xu, Shanghai University

11.4 Positive Shift of the Turn-on Voltage of Indium-gallium-zinc Oxide Thin-film Transistors with Reduced Active Layer Thickness (11:00-11:20)

Runxiao Shi, The Hong Kong University of Science and Technology

11.5 Fluorination Technology for Indium-gallium-zinc Oxide Thin-film Transistors (11:20-11:40)

Wei Jiang, The Hong Kong University of Science and Technology

Session 12: Micro-LED Chip 2 (EMQ-MicroLED)

Sunday, March 23/10:00-12:00/ Grand Room A

Chair: Qian Sun (孙 钱), Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences

12.1 *Invited Paper:* Progress and Challenges in Fabrication of InGaN-based Red Micro-LEDs for Display Applications (10:00-10:20)

Bin Liu (刘斌), Nanjing University

12.2 *Invited Paper:* Small Blueshift for Red InGaN-based Light Emitting Diode under High Injection Levels (10:20-10:40)

Zhizhong Chen (陈志忠), Peking University

12.3 Micro LED in Series on a Single Chip for Display Performance Enhancement (10:40-11:00)

Hugues Lebrun, Aledia

12.4 Research on Micro LED Characteristics Simulation Model for LED Light Efficiency Improvement Design (11:00-11:20)

Tingting Zhou, BOE Technology Group Co., Ltd.

12.5 Impacts of Sidewall on the Luminous Characteristics of InGaN- and AlGaInP-based Red Micro-LEDs (11:20-11:40)

Weijie Guo, Xiamen University

12.6 Novel Design of Microstructure Package Design to Enhance Optical Efficiency of Micro-LED Displays (11:40-12:00)

Naiwei Liu, BOE Technology Group Co., Ltd.

Session 13: Prospects and Applications for VR/AR/MR (VR/AR/MR)

Sunday, March 23/10:40-12:20/ Function Room 402

Chair: Zi Wang (王梓), Hefei University of Technology

13.1 *Invited Paper:* Method for Achieving Typing or Touch Control with Tactile Feedback (10:40-11:00)

Jong-Guang TK Pan (潘仲光), ChiMETA Technology Ltd.

13.2 An Electro Tactile-centered Cross-modal Application for Immersive Virtual Reality (11:00-11:20)

Jingye Huang, Southeast University

13.3 A Comprehensive Investigation of the Prospects and Challenges of Extended Reality Applied to Medicine (11:20-11:40)

Haotian Huang, North China University of Technology

13.4 Bright-pupil Eye Tracking Measurements Using Infrared LEDs and CMOS Image Sensors for AR/VR (11:40-12:00)

Haozhe Cui, Kyushu University

13.5 High-resolution Integral Imaging Device Based on Subpixel Multiplexing and Non-centrosymmetric Microlens Array (12:00-12:20)

Chongji Zhao, Sichuan University

Session 14: Brightness Evaluation (Applied Vision)

Sunday, March 23/10:20-11:40/ Meeting Room 203

Chair: Ming RONNIER Luo (罗明), Zhejiang University

14.1 *Invited Paper:* Investigation on Sparkling Issue in 3D Light Field Displays (10:20-10:40)

Yaodong Wu (吴曜东), Shanghai Tianma Microelectronics Co., Ltd.

14.2 Exploration of 40Hz Infrared Rhythmic Light Stimulation in Healthy Display Applications (10:40-11:00)

Shiyang Song, Southeast University

14.3 Contrast Perception Study of OLED Displays under Different Ambient Lighting (11:00-11:20)

Lan He, Southeast University

14.4 Influence of Melanopic Luminance of Display Images on Brightness Perception and Cognitive Performance (11:20-11:40)

Nianfang Zhu, Southeast University

Session 15: AI for Display Science (AI for Imaging and Display)

Sunday, March 23/10:20-11:40/ Function Room 405

Chair: Bo-ru Yang(杨柏儒), Sun Yat-Sen University

15.1 *Invited Paper:* Machine Learning Guided Design and High Throughput Screening of OLED Materials (10:20-10:40)

Dandan Song(宋丹丹), Beijing Jiaotong University

15.2 *Invited Paper:* Leveraging Large Language Models for Molecular Generation in OLED Materials Discovery (10:40-11:00)

Wei Xu(徐炜), TCL AI Lab

15.3 *Invited Paper:* Intelligent Analysis and Display of Medical Images for Guiding Diagnosis and Treatment (11:00-11:20)

Fang Chen (陈芳), Shanghai JiaoTong University

15.4 *Invited Paper:* Developing Large Language Models for Display Industrial Knowledge: Data Augmentation, Training Techniques, and Evaluation Strategies (11:20-11:40)

Bingqian Wang (王炳乾), BOE Technology Group Co., Ltd.

Session 16: New Technology & Performance (Vehicle Display)

Sunday, March 23/10:20-11:40/ Meeting Room 205

Chair: Xiongping Li (李雄平), Tianma Microelectronics Co., Ltd.

16.1 *Invited Paper:* Switchable Privacy: Optical Measurements and Evaluation for Safe Driving (10:20-10:40)

Karlheinz Blankenbach, Pforzheim University

16.2 *Invited Paper:* Quantum Dot Technology for Automotive Display Applications (10:40-11:00)

ZhongSheng Luo (罗忠升), Nanosys (Shoei Electronic Material Inc.)

16.3 Novel Vehicular Glazing Displays Enabled by Optic-clear Emissive Projection Screen (11:00-11:20)

Ted Sun, Sun Innovations Inc.

16.4 Development of High-resolution Vehicle Display Based on BCE Oxide Thin-film Transistors (11:20-11:40)

Liufei Zhou, Nanjing BOE Display Technology Co., Ltd.

Session 17: High Dynamic Range and High Resolution (Display Measurement)

Sunday, March 23/9:40-11:20 / Meeting Room 201

Chair: Li Song (宋立), Everfine Corporation

17.1 Measuring the Future: Frontiers in AR/VR Testing and Metrology in 2024 (9:40-10:00)

Lei Zhao (赵蕾), Yongjiang Lab

17.2 *Invited Paper:* Research on the Measurement Method of Halo Effect in HDR LCD Displays (10:00-10:20)

Li Song (宋立), Everfine Corporation

17.3 Study on the Influence of Scan Time on the Test Accuracy of High PPI Fast LCD Product Response Time (10:20-10:40)

Xinfang Li, BOE CHUANGYUAN Technology Co., Ltd.

17.4 Research of Dynamic Halo in Mini-LED Backlit LCD Display (10:40-11:00)

Chenhao Hu, Southeast University

17.5 Comparison of HDR Display Characterization Methods Using Limited Sampling Points (11:00-11:20)

Miaosen Zhou, Zhejiang University

Session 18: Display Materials and Parts (Display Manufacturing)

Sunday, March 23/9:40-11:40/ Function Room 403

Chair: Ying Shen (申莹), Hefei Visionox Technology Co., Ltd.

18.1 *Invited Paper:* QC Plan Revolution Study in Intelligent Manufacturing (9:40-10:00)

Zhaofeng You (尤照峰), Corning Display Technologies China

18.2 *Invited Paper:* LB Technology of Ultra-Thin Functional Inorganic and Organic Layers for Flexible Display Electronics (10:00-10:20)

Victor Belyaev, State University of Education, Moscow

18.3 Research on Peeling Performance of Acrylic Photoresist with Isolated Island Pattern for OLED Display (10:20-10:40)

Ying Shen, Hefei Visionox Technology Co., Ltd.

18.4 Test and Analysis of the Photo-sensitive Properties of PSPI Photoresist (10:40-11:00)

Qingliang You, Jianghan University

18.5 Study on the Influencing Factors of Residual Adhesive of the Protective Film Used on the Display Module (11:00-11:20)

Fangyi Liu, Beijing BOE Display Technology Co., Ltd.

18.6 The Development of Splicing-coated Polarizers for TFT-LCDs (11:20-11:40)

Xinru Yang, TCL China Star Optoelectronics Technology Co., Ltd.

Session 19: OLED Device Physics-Charge Management and Exciton Manipulation (OLEDs)

Monday, March 24/13:30-15:10/ Grand Room C

Chair: Jwo-Huei Jou (周卓煇), Taiwan Tsing Hua University

19.1 *Invited Paper:* P-Dopant with Ultra-Low Conductivity Used in Tandem OLEDs (13:30-13:50)

Huiqing Pang (庞惠卿), Beijing Summer Sprout Technology Co., Ltd.

19.2 *Invited Paper:* Double Electron Blocking Layer in Green Phosphorescent Devices: Design Principles for High Performance (13:50-14:10)

Natalie Tober, Merck Electronics KGaA

19.3 *Invited Paper:* Polaritonic OLEDs with Assistant Strong-coupling Layers: A New Approach to Sub-20nm Emission Linewidth in OLED Displays (14:10-14:30)

Malte Gather, University of Cologne

19.4 A Novel Investigation of Aluminum Corrosion Induced by the Components in Polarizer for OLED Displays (14:30-14:50)

Guofeng Zhang, Wuhan Tianma Microelectronics Co., Ltd.

19.5 Percolation Theory for Charge Carrier Transport in Disordered OLED Thin Films (14:50-15:10)

Feilong Liu, South China Normal University

Session 20: Oxide TFT 2 (Active-Matrix Device)

Monday, March 24/13:30-14:30/ Grand Room A

Chair: Bowen Zhu (朱博文), Westlake University

20.1 *Invited Paper:* Investigation of High Mobility Metal Oxide TFT for IT AMOLED Backplane Technology Development (13:30-13:50)

Fa-Hsyang Chen (陈发祥), Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

20.2 High-K Dielectrics for Oxide Thin-film Transistors (13:50-14:10)

Wangying Xu, Jimei University

20.3 Influence of Tungsten Doping Content on the Reliability of Indium Zinc Oxide Thin-film Transistor (14:10-14:30)

Bin Wang, Shenzhen University

Session 21: High PPI Micro-LED (EMQ-MicroLED)

Monday, March 24/13:30-15:10/ Grand Room B

Chair: Fengjia Fan (樊逢佳), University of Science and Technology of China

21.1 *Invited Paper:* Advanced Micro-LED Displays for Near-to-Eye Displays (13:30-13:50)

Zhaojun Liu (刘召军), South University of Science and Technology of China

21.2 *Invited Paper:* 0.18cc Full-color Micro-LED Light Engine Powered by QDPR Technology (13:50-14:10)

Eddie Chong (庄永漳), Raysolve Optoelectronics (Suzhou) Company Limited

21.3 *Invited Paper:* Non-covalent Epitaxy for Three-dimensional Light-emitting Diode Pixels (14:10-14:30)

Young Joon Hong, Sungkyunkwan University

21.4 *Invited Paper:* Recent Progress of GaN Based Technology for Metaverse and EV (14:30-14:50)

Hao-Chung Kuo (郭浩中), Taiwan Yang Ming Chiao Tung University

21.5 *Invited Paper:* Progress of Micro-LED Device and System Technology (14:50-15:10)

Jingqiu Liang (梁静秋), Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences

Session 22: Display Technologies for VR/AR/MR (VR/AR/MR)

Monday, March 24/13:30-15:10/ Function Room 402

Chair: Tao Jia (贾韬), YONGJIANG Laboratory

22.1 A Review of Microdisplay Panels for AR/VR (13:30-13:50)

Yixing Chen, Nanjing Smartvision Electronics Co., Ltd.

22.2 A Laser Illuminated Microdisplay for AR (13:50-14:10)

Guohua Wei, Meta

22.3 Towards High-quality VR Display Free of Vergence Accommodation Conflict (14:10-14:30)

Jianghao Xiong, Beijing Institute of Technology

22.4 Development of a Real 4K*4K VR Display with Ultra-Wide Color Gamut and Panel Eye-Tracking Technology (14:30-14:50)

Lutong Wang, BOE Technology Group Co., Ltd.

22.5 Optimizing Photon-to-Photon Latency in MR Equipment Video See-Through Display: Design Guidelines and Tuning Strategies (14:50-15:10)

Wangzan Jin, GravityXR Electronics and Technology Co., Ltd.

Session 23: Visual Experience (Applied Vision)

Monday, March 24/13:30-15:10/ Meeting Room 205

Chair: Shining Ma (马诗宁), Beijing Institute of Technology

23.1 *Invited Paper:* Effects of Dynamic Spatial Distortion on User Experience in Virtual Environments (13:30-13:50)

Zhenping Xia (夏振平), Suzhou University of Science and Technology

23.2 *Invited Paper:* A Multimodal Network for Visual Discomfort Prediction (13:50-14:10)

Yunyang Shi (史韫杨), Nanjing Tech University

23.3 *Invited Paper:* Construction of a Structural Equation Model and Indicator System for Eye Health Protection of Displays (14:10-14:30)

Yunhong Zhang (张运红), China National Institute of Standardization

23.4 *Invited Paper:* Ocular Responses and Symptoms in Stereoscopic Gaming (14:30-14:50)

Ying Wang (王莹), Hangzhou Dianzi University

23.5 Development and Verification of Display Visual Comfort Model (14:50-15:10)

Zhenzhen Li, Zhejiang University

Session 24: AI for Image Processing and Computer Vision (AI for Imaging and Display)

Monday, March 24/13:30-14:50/ Function Room 401

Chair: Fang Chen (陈芳), Shanghai JiaoTong University

24.1 *Invited Paper:* Introduction of Artificial Intelligence Technologies for Display Industry (13:30-13:50)

Bo-ru Yang(杨柏儒), Sun Yat-Sen University

24.2 AI-based Rapid Defect Detection Method for Display Screen Appearance (13:50-14:10)

Shujuan Yin, BOE Technology Group Co., Ltd.

24.3 Navigating Privacy Concerns: A Comprehensive Review of Challenges in Artificial Intelligence Image-to-video Generation Applications (14:10-14:30)

Chuangxin Chu, Nanyang Technological University

24.4 AI-driven Medical Imaging in Cancer Diagnosis: Recent Advances and Trends (14:30-14:50)

Tianyu Zeng, Hong Kong Polytechnic University

Session 25: Driving Circuit (Display Electronics)

Monday, March 24/13:30-14:50/ Meeting Room 202

Chair: Baoyun Wu, BOE Technology Group Co., Ltd.

25.1 *Invited Paper:* High-mobility and High-reliability Nano-crystalline IZO TFT (13:30-13:50)

Lei Lu (陆磊), Peking University Shenzhen Graduate School

25.2 A Narrow Border Design with a New Scanning Circuit Under Low Frequency AOD (13:50-14:10)

Chuanzhi Xu, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

25.3 Smart GOA Technology-A Technique for Aging Compensation of GOA Circuit (14:10-14:30)

Chao Xie, BOE Technology Group Co., Ltd.

25.4 Oxide TFT Pixel Circuit for AMOLED Displays Employing Threshold Voltage One-time Detection Method (14:30-14:50)

Lei Zhou, South China University of Technology

Session 26: Color Modeling and Rendering (Display Measurement)

Monday, March 24/13:30-14:50/ Meeting Room 201

Chair: Luning Liu (刘璐宁), Wuhan Jingce Electronics Group Co., Ltd

26.1 Recent Developments in Photometric Robotics (13:30-13:50)

Bob Liu, TechnoTeam Bildverarbeitung GmbH

26.2 Research on Image Quality Evaluation Standard for LCD Display (13:50-14:10)

Jiajia Chen, TCL China Star Optoelectronics Technology Co., Ltd.

26.3 Enhancing the Accuracy of XYZ Tristimulus Colorimeters over Spectral Shifts in OLED Display Manufacturing through an Extended Unique Matrix (14:10-14:30)

Hyongmin Hahm, Admesy Technologies Asia

26.4 Modeling and Optimization of Color Vision Simulation Models for Imaging through Optical Spectral Filtration (14:30-14:50)

Yilun Jia, Southeast University

Session 27: Fabrication of TFT Backplanes (Display Manufacturing)

Monday, March 24/13:30-14:50/ Function Room 403

Chair: Chengyuan Dong (董承远), Shanghai Jiaotong University

27.1 *Invited Paper:* CCZA Copper Alloy Electrodes for Metal Oxide TFT (13:30-13:50)

Honglong Ning (宁洪龙), South China University of Technology

27.2 *Invited Paper:* Floating Gate Synaptic Transistors Based on Graphene Oxide Charge Storage Sites (13:50-14:10)

Rihui Yao (姚日晖), South China University of Technology

27.3 *Invited Paper:* High-k Hybrid Gate Dielectrics for Flexible, Low-voltage Thin-film Transistors (14:10-14:30)

Xianzhe Liu (刘贤哲), Wuyi University

27.4 Impact of Material Characteristics on the Sputter Behaviors of Refractory Metal Targets for Thin Films in Display Applications (14:30-14:50)

Zecui Gao, Plansee

Session 28: OLED Display-Applications (OLEDs)

Monday, March 24/15:20-16:40/ Grand Room C

Chair: Dongdong Zhang (张东东), Tsinghua University

28.1 *Invited Paper:* Blue-light Hazards and Some Effective Resolutions (15:20-15:40)

Jwo-Huei Jou (周卓煇), Taiwan Tsing Hua University

28.2 *Invited Paper:* Recent Technical and Mass Production Progress on High-Performance ViP AMOLED Technology (15:40-16:00)

Yiming Xiao (肖一鸣), Visionox Technology Inc.

28.3 Study on Viewing Angle of Novel Ultra-large Size OLED Display (16:00-16:20)

Yunpeng Zhang, Chengdu BOE Optoelectronics Group Co., Ltd.

28.4 High Performance and High Color Purity Green OLEDs for Wide Color Gamut Requirements (16:20-16:40)

Guomeng Li, Beijing Visionox Technology Co., Ltd.

Session 29: TFT Device and Circuit Interaction 1 (Active-Matrix Device)

Monday, March 24/14:40-16:20/ Grand Room A

Chair: Yuan Li (李元), Shandong University

29.1 *Invited Paper:* Oxide Thin-film Transistors for Large-area, High-spatial-resolution Flexible Active-matrix Sensor Arrays (14:40-15:00)

Bowen Zhu (朱博文), Westlake University

29.2 *Invited Paper:* Compact A-PWM µLED Pixel Circuit with Increased Voltage Gain for Reduced PWM Conversion Time Based on LTPO TFTs (15:00-15:20)

Congwei Liao (廖聪维), Peking University

29.3 An Excellent Micro LED Low Power Backplane Solution (15:20-15:40)

Yicheng Lin, BOE Technology Group Co., Ltd.

29.4 Gate Driver Circuit to Generating Multi-output Using LTPO Technology (15:40-16:00)

Lanfen Lv, Hefei Visionox Technology Co., Ltd.

29.5 Research on Dual-Gate Pixel Architecture Enabling High-PPI and High-Refresh-Rate LCD Panels (16:00-16:20)

Dongchuan Chen, BOE Technology Group Co., Ltd.

Session 30: MicroLED Color (EMQ-MicroLED)

Monday, March 24/15:20-17:00/ Grand Room B

Chair: Jingqiu Liang (梁靜秋), Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences

30.1 *Invited Paper:* Saphlux's NPQD® Technology: Driving the Revolution in Direct-Emitting and AR Displays (15:20-15:40)

Chen Chen (陈辰), Saphlux, Inc.

30.2 *Invited Paper:* Perovskite Thin-films for Ultra-fine Pixel-pitch, High-brightness MicroLED Displays (15:40-16:00)

Francois Templier, CEA-LETI

30.3 Global Color Correction of Micro-LED Display at High Temperature (16:00-16:20)

Peixuan Chen, Tianma Advanced Display Technology Institute (Xiamen) Co., Ltd.

30.4 Highly Luminescent and Stable Quantum Dot Pixels for Full-Color Micro-LED Display (16:20-16:40)

Jianbing Zhang, Huazhong University of Science and Technology

30.5 A Review: Patterning Technologies of Perovskite Nanocrystals for Full-Color Micro-LED Displays (16:40-17:00)

Shuli Wang, Xiamen University

Session 31: 3D Generation, Rendering and Modeling Technologies for VR/AR/MR and Metaverse (VR/AR/MR)
Monday, March 24/15:20-17:00/ Function Room 402
Chair: Zong Qin (秦宗), Sun Yat-Sen University
31.1 *Invited Paper:* Foveated Holographic Near-Eye-Display with a Compact Form Factor (15:20-15:40)
Jae-Hyeung Park, Seoul National University
31.2 *Invited Paper:* Vision-correcting Near-eye Display Enabled by Computational and Freeform Optics (15:40-16:00)
Zong Qin (秦宗), Sun Yat-Sen University
31.3 High-quality Light Field Images Generation for Binocular Endoscopic Visualization (16:00-16:20)
Yuanqing Yang, Tsinghua University
31.4 Optimizing Augmented Reality-assisted Intraoperative Airway Navigation with Frequency Domain Perception-based Fine-grained Segmentation (16:20-16:40)
Jian Wang, Shanghai Jiaotong University
31.5 Wide-viewing Angle Light Field Holographic AR Display (16:40-17:00)
Wenqi Wang, Southeast University

Session 32: Novel Display System Application 1 (Display System)
Monday, March 24/15:20-17:20/ Meeting Room 205
Chair: Bo Shi, BOE Technology Group Co., Ltd.
32.1 120Hz High Refresh Rate LCD Projection Display System (15:20-15:40)
Zhang Feng, BOE Technology Group Co., Ltd.
32.2 The Ultra-high Contrast Ratio Solution of HFS Display (15:40-16:00)
Deyan Li, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
32.3 Research on Spherical LED Tiled Display System Based on Triangular Panel (16:00-16:20)
Shipeng Wang, BOE Technology Group Co., Ltd.
32.4 The Stencil-SSIM Method for 3-field Sequential Color Displays (16:20-16:40)
Qi Wang, Hisense Visual Technology Co., Ltd.
32.5 Research on Absolute Pointing Remote Control Technology Based on Intelligent Display Terminals (16:40-17:00)
Tao Li, BOE Technology Group Co., Ltd.
32.6 Integrating Visible Light Communication into an E-paper's Front Light Module for IoT Applications (17:00-17:20)
Zhiqing Zhao, Sun Yat-Sen University

Session 33: Device Materials and the Physics of QLEDs (EMQ-Quantum Dots)
Monday, March 24/15:00-16:40/ Function Room 401
Chair: Huaiting Shi (施槐庭), BOE Technology Group Co., Ltd.
33.1 *Invited Paper:* Nanocrystalline Perovskites: Pioneering Materials for Superior Next Displays (15:00-15:20)

Tae-Woo Lee, Seoul National University

33.2 *Invited Paper:* Observation of Trap Formation in Degraded Quantum-dot Light-emitting Diodes (15:20-15:40)

Quan Niu (牛泉), State Key Laboratory of Luminescent Materials And Devices, South China University of Technology

33.3 *Invited Paper:* Enhancing Quantum Efficiency of an Organic Light-Emitting Diode via Quantum Dots Doping (15:40-16:00)

Zingway Pei (裴静伟), Chung Hsing University

33.4 Device Physics and Material Chemistry of Quantum-dot Light-emitting Didoes (16:00-16:20)

Yizheng Jin, Zhejiang University

33.5 Improve Electroluminescence Morphology and Operating Lifetime of QLED Device by Modified ZnMgO (16:20-16:40)

Xiangbing Fan, BOE Technology Group Co., Ltd.

Session 34: Driving Technology (Display Electronics)

Monday, March 24/15:00-16:20/ Meeting Room 202

Chair: Lei Lu (陆磊), Peking University Shenzhen Graduate School

34.1 *Invited Paper:* Pixel Circuits and Driving Technologies for Suppressing Wavelength Shift in Micro Light-emitting Diodes (15:00-15:20)

Yong-Sang Kim, Sungkyunkwan University

34.2 The Influencing Factors of SVM in OLED Dimming (15:20-15:40)

Baoyun Wu, BOE Technology Group Co., Ltd.

34.3 Research on Power Saving Solutions for medium-sized AMOLED Display (15:40-16:00)

Yuqing Wang, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

34.4 Modeling and Simulation of Active Matrix Driven Cholesteric Liquid Crystal Displays (16:00-16:20)

Xiaomin Wei, Shanghai Jiaotong University

Session 35: Near Eye and Micro Display Measurement (Display Measurement)

Monday, March 24/15:00-16:40/ Meeting Room 201

Chair: Chi Chen (陈赤), National Institute of Metrology, China

35.1 *Invited Paper:* Optical Measurement with Foveated Rendering and Dynamic Compensation in Eye-tracking Near-Eye Displays (15:00-15:20)

Lei Zhao (赵蕾), YONGJIANG Laboratory

35.2 Verification Method for the Accuracy of NED Luminance and Colorimetry Measurements (15:20-15:40)

Luning Liu, Wuhan Jingce Electronics Group Co., Ltd.

35.3 The Study for Image Retention Measuring Method of OLED (15:40-16:00)

Yanling Liu, Beijing Visionox Technology Co., Ltd.

35.4 Measurement and Correction of Distortions in Near-Eye Displays (16:00-16:20)

Kaihua Xu, Wuhan Jingce Electronic Technology Corporation

35.5 Comparing the Optical Properties of Electroluminescence and Photoluminescence in Micro-LED Displays (16:20-16:40)

Bin Huan, Huazhong University of Science and Technology

Session 36: Fabrication of Optoelectronic Devices (Display Manufacturing)

Monday, March 24/15:00-16:20/Function Room 403

Chair: Honglong Ning (宁洪龙), South China University of Technology

36.1 Research on Redundancy Absorption and Surface Deformation of OLED Display (15:00-15:20)

Yefei Yang, Hefei Visionox Technology Co., Ltd.

36.2 Advanced Technologies for Super Lightweight Polymer Waveguide and Large FOV Waveguide (15:20-15:40)

Kosuke Nakamura, Cellid

36.3 Eliminate Circular Bright Spots Resulting from Poor Compatibility between PI and Liquid Crystal in LCD (15:40-16:00)

Shuang Lu, TCL China Star Optoelectronics Technology Co., Ltd.

36.4 Achromatic Retarder Based on ZnO Nanostructure for Antireflection Layer (16:00-16:20)

Manh-Thang Tran, Jeonbuk National University

Session 37: OLED-Blue Materials (OLEDs)

Monday, March 24/16:50-18:50/ Grand Room C

Chair: Xuhui Zhu (朱旭辉), South China University of Technology

37.1 *Invited Paper:* Design Strategy for High Efficient Blue Dopant (16:50-17:10)

Yun-Hi Kim, Gyeongsang National University

37.2 *Invited Paper:* Superbly Efficient and Stable Ultrapure Blue Phosphorescent Organic Light-Emitting Diodes with Tetradentate Pt (II) (17:10-17:30)

Hyoung Yun Oh, LORDIN

37.3 *Invited Paper:* Phosphor-sensitized Fluorescent Emitters for Efficient Blue-emitting Organic Light-emitting Diodes (17:30-17:50)

Jeong-Hwan Lee, Inha University

37.4 *Invited Paper:* Highly Efficient and Stable Sensitized Blue OLEDs (17:50-18:10)

Dongdong Zhang (张东东), Tsinghua University

37.5 *Invited Paper:* New EIL Materials Extending the Lifetime of OLED Devices (18:10-18:30)

Mariusz Bosiak, Noctiluca SA

37.6 *Invited Paper:* High Color Purity Deep-blue Multi-resonance TADF OLED Material with Narrowband Emission Towards BT.2020 Standard (18:30-18:50)

Lei Wang (王磊), Huazhong University of Science and Technology

Session 38: TFT Device and Circuit Interaction 2 (Active-Matrix Device)

Monday, March 24/16:30-18:10/ Grand Room A

Chair: Dongchuan Chen (陈东川), BOE Technology Group Co., Ltd.

38.1 *Invited Paper:* Modeling Amorphous Thin-film Transistors: A Mott Formalism (16:30-16:50)

Yuan Li (李元), Shandong University

38.2 A High Performance and High Stability Oxide TFT with a Novel Device Structure Using Atomic Layer Deposition (16:50-17:10)

Lin Xu, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

38.3 Small-subthreshold-swing and Low-voltage Organic Field-effect Transistors with Excellent Uniformity Using a Circular Architecture (17:10-17:30)

Mengmeng Li, Institute of Microelectronics, CAS

38.4 A Study on the Improvement of Low Gray Mura (17:30-17:50)

Xiaoxiao Guo, Hefei Visionox Technology Co., Ltd.

38.5 Dynamic On-state Stress-induced Degradation in Polycrystalline Silicon Thin-film Transistors (17:50-18:10)

Yunyang Wang, Shenzhen University

Session 39: MicroLED Evaluation (EMQ-MicroLED)

Monday, March 24/17:10-18:30/ Grand Room B

Chair: Zhiting Ye (叶志庭), Taiwan Chung Cheng University

39.1 Electroluminescence Testing and Inspection for Micro LED Wafers: a Metrological and Industrial Necessity (17:10-17:30)

Wade Lee, InZiv

39.2 Application of Micro-LED Abnormal Analysis after Mass Transfer (17:30-17:50)

Xuequn Fu, Chengdu Vistar Optoelectronics Co., Ltd.

39.3 In Situ Observation of Charge Carriers in LEDs Using Electrically Excited Transient Absorption Spectroscopy (17:50-18:10)

Fengjia Fan, University of Science and Technology of China

39.4 Impact of Acceleration Voltage on Cathodoluminescence and Defect Identification in InGaN Quantum Wells (18:10-18:30)

Hira Usman, Southern University of Science and Technology

Session 40: Display Optics for VR/AR/MR (VR/AR/MR)

Monday, March 24/17:10-18:50/Function Room 402

Chair: Enguo Chen (陈恩果), Fuzhou University

40.1 *Invited Paper:* Ultra High Brightness Front-lit LCOS for AR Applications (17:10-17:30)

Yuet-Wing Li (李悦荣), Himax Display Inc.

40.2 *Invited Paper:* Near-Eye Augmented Reality Display with Enlarged Field of View Using Holographic Lens Array (17:30-17:50)

Enguo Chen (陈恩果), Fuzhou University

40.3 *Invited Paper:* Design and Fabrication of Holographic Optical Elements (17:50-18:10)

Rengmao Wu (吴仍茂), Zhejiang University

40.4 Design of Affordable and Comfortable AR Glasses with Optics Based on Polarization Volume Hologram (18:10-18:30)

Darwin Hu, Sysview Technology, Inc.

40.5 Enabling High Performance AR Waveguide Display with Semiconductor Manufacturing Technologies (18:30-18:50)

Jinxin Fu, Applied Materials

Session 41: Novel Display System Application 2 (Display System)

Monday, March 24/17:30-18:30/ Meeting Room 205

Chair: Yuqing Wang, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

41.1 Real-time Anti-photography System Based on AI Technology (17:30-17:50)

Yimeng Ma, BOE Technology Group Co., Ltd.

41.2 Imaging Quality Optimization of Under Display Camera Based on Polarization Optics (17:50-18:10)

Bo Shi, BOE Technology Group Co., Ltd.

41.3 Fly-eyes Optical Neural Network with Micro LED Display (18:10-18:30)

Yu Jiang, Southeast University

Session 42: Applications of Emissive Devices (EMQ-Quantum Dots)

Monday, March 24/16:50-18:30/ Function Room 401

Chair: Zingway Pei(裴靜伟), Chung Hsing University

42.1 *Invited Paper:* Atomic Layer Deposition Strategies for Quantum Dot Displays: From Passivation Layers of Patterning to Charge Transport Engineering (16:50-17:10)

Seong-Yong Cho, Hanyang University

42.2 *Invited Paper:* Progress and Challenges of Ink Jet Printing Quantum Dots LEDs (17:10-17:30)

Yiran Yan (严怡然), TCL Research

42.3 *Invited Paper:* Low-dimensional Semiconductor Luminescent Materials and Devices (17:30-17:50)

Xuyong Yang (杨绪勇), Shanghai University

42.4 *Invited Paper:* Large-area and Efficient Perovskite Light-emitting Diodes (17:50-18:10)

Zhengguo Xiao (肖正国), University of Science and Technology of China

42.5 Efficient Pixelated Blue Quantum Dot Light-emitting Diodes via Direct Photo-patterning (18:10-18:30)

Peng Bai, BOE Technology Group Co., Ltd.

Session 43: Display Structure (Display Electronics)

Monday, March 24/16:30-17:30/ Meeting Room 202

Chair: Qing Li (李青), Southeast University

43.1 Research on Anti-WiFi Noise Interference Technology for Display Driver IC (16:30-16:50)

Qianqian Lv, TCL China Star Optoelectronics Technology Co., Ltd.

43.2 Research on Reducing Operating Temperature Solutions for Large-sized Display Driver & Power Chips (16:50-17:10)

Haiqi Mo, TCL China Star Optoelectronics Technology Corporation

43.3 Research on Topology of Consumer Oxide Power Chip (17:10-17:30)

Zhisong Sun, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

Session 44: Display Measurement and Metrology (Display Measurement)

Monday, March 24/16:50-18:50/ Meeting Room 201

Chair: Lei Zhao (赵蕾), YONGJIANG Laboratory

44.1 *Invited Paper:* The New Requirements of the Industry for Metrology (16:50-17:10)

Chi Chen (陈赤), National Institute of Metrology, China

44.2 *Invited Paper:* A Multifunctional Analytical Platform for Advanced Characterization of Semiconductive and Optoelectronic Materials (17:10-17:30)

Nicolas Medard, Attolight AG

44.3 *Invited Paper:* Combined Effects of Color-Gamut Coverage, Blue and Red Peak Wavelengths on Vision Quality and Ocular Function (17:30-17:50)

Jianqi Cai (蔡建奇), China National Institute of Standardization

44.4 Analysis of Failure Model for Notebook Mechanical Tests (17:50-18:10)

Guoren Luo, TCL China Star Optoelectronics Technology Co., Ltd.

44.5 Objective Metrics and Theoretical Model for Evaluating the Spatial Reality Reproduction Performance of Head-mounted Display (18:10-18:30)

Liang Gu, GravityXR Electronics and Technology Co., Ltd.

44.6 Diffraction Simulation for Improving Imaging Quality of Under-display Camera (18:30-18:50)

Zhaoliang Li, Sun Yat-Sen University

Session 45: LC Photonic Devices (Liquid-Crystal Technology)

Monday, March 24/16:30-18:30/ Function Room 403

Chair: Jiangang Lu (陆建钢), Shanghai Jiao Tong University

45.1 *Invited Paper:* Electrically Manipulated Microstructures of Liquid Crystals Towards Soft Matter Photonics (16:30-16:50)

Bingxiang Li (李炳祥), Nanjing University of Posts and Telecommunications

45.2 *Invited Paper:* Efficient Large Angle Diffraction Based on Patterned Chiral Liquid Crystal (16:50-17:10)

Kristiaan Neyts, The Hong Kong University of Science and Technology

45.3 *Invited Paper:* All-optical Neural Network Enabled Liquid Crystal Devices (17:10-17:30)

Wanlong Zhang (张万隆), Shenzhen University

45.4 *Invited Paper:* Liquid Crystal Spatial Light Modulator for Quantum Computing (17:30-17:50)

Andrey Belyaev, State University of Education, Moscow

45.5 Ultra-Compact Optical Microscopes Made of Liquid Crystal Pancharatnam-Berry Optical Elements (17:50-18:10)

Qihuo Wei, Southern University of Science and Technology

45.6 Light Propagation and Polarization in Bulk Cholesteric Liquid Crystal (18:10-18:30)

Ke Xu, The Hong Kong University of Science and Technology

Session 46: OLED-Materials (OLEDs)

Tuesday, March 25/8:30-9:30/ Grand Room C

Chair: Zugang Liu (刘祖刚), Rayitek Hi-Tech Film Company/China Jiliang University

46.1 *Invited Paper:* High-Performance Hyperfluorescence™ for Diverse Color Spaces (8:30-8:50)

Shuo-Hsien Cheng, Kyulux, Inc.

46.2 *Invited Paper:* Polyimides for OLEDs (8:50-9:10)

Zugang Liu (刘祖刚), Rayitek Hi-Tech Film Company/China Jiliang University

46.3 2-(3-(10-(naphth-2-yl)-anthracen-9-yl) phenyl)-4,6-diphenyl-1,3,5-triazine as a Promising Electron-transport Material for OLEDs (9:10-9:30)

Xuhui Zhu, South China University of Technology

Session 47: Emerging TFT Technologies (Active-Matrix Device)

Tuesday, March 25/8:30-10:30/ Grand Room A

Chair: Junhwan Choi, Dankook University

47.1 ***Invited Paper:*** **Amorphous p-type Tellurium Oxide Transistors (8:30-8:50)**

Yong-Young Noh, Pohang University of Science and Technology

47.2 ***Invited Paper:*** **Materials and Devices for High-density, Low-power Organic Electronic Devices (8:50-9:10)**

Junhwan Choi, Dankook University

47.3 ***Invited Paper:*** **Demonstration of Chemical Doping and Complementary Inverter Operation in Molybdenum Ditelluride Transistors Using Self-Assembled Monolayers (9:10-9:30)**

Dong Hyun Lee, Gachon University

47.4 Investigation on Mobility Improvement of Crystalline Metal Oxide TFT (9:30-9:50)

Kai Zhou, Shenzhen China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

47.5 Development of High Stable Devices with Smal Chanel Length in High Mobility Oxide TFT (9:50-10:10)

Guowen Yan, Hefei Visionox Technology Co., Ltd.

47.6 Ta Doping Impact on p-type SnOx Semiconducting Films and Transistors (10:10-10:30)

Yu Song, Hunan University

Session 48: Micro-LED Transfer and Bonding (EMQ-MicroLED)

Tuesday, March 25/8:30-9:50/ Grand Room B

Chair: Yingteng Zhai (翟应腾), Shanghai Tianma Microelectronics Co., Ltd.

48.1 ***Invited Paper:*** **Design of Micro-LEDs with Enhanced Optical Efficiency and Transfer Yield for Laser-Induced Transfer Technology (8:30-8:50)**

Kerui Xi (席克瑞), Tianma Advanced Display Technology Institute (Xiamen) Co., Ltd.

48.2 ***Invited Paper:*** **Massive Transfer for Large Area Micro-LED Displays (8:50-9:10)**

Makarem Hussein, LuxNour Technologies Inc.

48.3 Optimization of Backplane Design and Metal Bonding Process for High-Yield Micro-LED Display Manufacturing (9:10-9:30)

Hang Chen, Chengdu Vistar Optoelectronics Co., Ltd.

48.4 Research on LED Sorting, LED Mixing, and Image Quality (9:30-9:50)

Shanwei Yang, BOE Technology Group Co., Ltd.

Session 49: Display Optics, Sensors and Interaction for VR/AR/MR (VR/AR/MR)

Tuesday, March 25/8:30-10:10/ Function Room 402

Chair: Darwin Hu, Sysview Technology, Inc.

49.1 ***Invited Paper:*** **Full DOF Display for 3D Augmented Reality with Metalens Array (8:30-8:50)**

Jianwen Dong (董建文), Sun Yat-Sen University

49.2 ***Invited Paper:*** **High-performance Waveguide Displays Based on Ultra-broadband Polarization Volume Gratings (8:50-9:10)**

Yishi Weng (翁一士), Southeast University

49.3 ***Invited Paper:*** **Prism-Free Fabrication and High-Spatial-Resolution Characterization of Holographic Optical Waveguide (9:10-9:30)**

Chengzhe Chai (柴诚哲), YONGJIANG Laboratory

49.4 *Invited Paper:* Analysis of Display Performance in Waveguide-Based Augmented Reality Glasses: Factors and Compensation Techniques (9:30-9:50)

Tao Jia (贾韬), YONGJIANG Laboratory

49.5 UV Stable High-index Nanocomposite Formulations for Advanced Display Applications (9:50-10:10)

Vincent Jao, Pixelligent Technologies, LLC

Session 50: Novel Backlight System and Low-Power Technology (Display System)

Tuesday, March 25/8:30-9:50/ Function Room 403

Chair: Jinglun He (贺靖伦), Hisense Visual Technology Co., Ltd.

50.1 The Comprehensive Analysis of MNT Low Power Consumption (8:30-8:50)

Ke Mao, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

50.2 Multi-directional Backlighting Compressive Light Field Displays (8:50-9:10)

Chen Gao, Fujian Science & Technology Innovation Laboratory for Optoelectronic Information of China

50.3 A Novel High Performance and Easy to Manufacture Front Light System (9:10-9:30)

Peter Ren, New Vision Display

50.4 Study of Interaction Quality of Partitioned Backlight LCD Based on SSVEP (9:30-9:50)

Jiaqi Zhou, Southeast University

Session 51: Processing of QLED Display (EMQ-Quantum Dots)

Tuesday, March 25/8:30-10:30/ Function Room 401

Chair: Longjia Wu (吴龙佳), TCL Research

51.1 *Invited Paper:* Quantum Dot Assembly and Light-emitting Devices (8:30-8:50)

Fushan Li (李福山), Fuzhou University

51.2 *Invited Paper:* Progress in Direct Photolithography of R/G/B Quantum Dots for Full-color Displays (8:50-9:10)

Dong Li (李东), BOE Technology Group Co., Ltd.

51.3 *Invited Paper:* Efficient All-thermally Evaporated Perovskite LEDs for TFT-integrated Electroluminescence Displays (9:10-9:30)

Jiajun Luo (罗家俊), Huazhong University of Science and Technology

51.4 *Invited Paper:* Ultrahigh-resolution, High-fidelity Quantum Dot Pixels Patterned by Dielectric Electrophoretic Deposition (9:30-9:50)

Chengzhao Luo (罗成招), Soochow University

51.5 Quantum Coherence and Entanglement of Electrons and Photons in Nanocrystals for VR/AR/MR/Metaverse Systems (9:50-10:10)

Victor Belyaev, State University of Education, Moscow

51.6 Optical Efficiency Improvement of QD-OLED Technology with Structural Design and Material Selection (10:10-10:30)

Wenfeng Song, Yungu (Gu'an) Technology Co., Ltd.

Session 52: Display Algorithm (Display Electronics)

Tuesday, March 25/8:30-10:10/ Meeting Room 205

Chair: Chih-Wen Lu, Taiwan Cheng Kung University

52.1 *Invited Paper:* Large-area Transparent Perovskite Ceramics for X-ray Imaging Applications (8:30-8:50)

Qing Li (李青), Southeast University

52.2 *Invited Paper:* Advances in Sampled Analog Video Transport (8:50-9:10)

Alex Henzen, Hyphy USA Inc.

52.3 The Research of 0-Delay Local Dimming Technology for Enhanced Visual Experience (9:10-9:30)

Yu Wang, BOE Technology Group Co., Ltd.

52.4 Research on Brightness Uniformity Compensation (9:30-9:50)

Chunhui Ren, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

52.5 Target Detection and Parameter Inversion Based on Remote Sensing Imagery (9:50-10:10)

Tian Cai, Southeast University

Session 53: Flexible Electronic Devices (E-Paper and Flexible Displays)

Tuesday, March 25/8:30-9:30/ Meeting Room 203

Chair: Min Zhang (张敏), The Chinese University of Hong Kong, Shenzhen

53.1 Machine Learning Enhanced Self-Powered Sensing and Interaction (8:30-8:50)

Yao Xiong, Beijing Institute of Nanoenergy and Nanosystems, CAS

53.2 Full-color Fiber Light-emitting Diodes Based on Perovskite Quantum Wires towards Fiber/Textile Electronics (8:50-9:10)

Beitao Ren, The Hong Kong University of Science and Technology

53.3 Highly Stretchable Carbon Nanotube TFT Array for Deformable Display (9:10-9:30)

Ke He, Peking University

Session 54: LCD Image Quality (Liquid-Crystal Technology)

Tuesday, March 25/8:30-10:10/ Function Room 405

Chair: Wanlong Zhang (张万隆), Shenzhen University

54.1*Invited Paper:* Recent Progress in the Application of Liquid Crystal Dimming Glass (8:30-8:50)

Yanpeng Xue (薛彦鹏), Shanghai Tianma Micro-electronics

54.2 *Invited Paper:* A Novel UV2A Alignment Technique for Improving Skin Color Washout (8:50-9:10)

Mingzhi Nan (南明智), BOE Technology Group Co., Ltd, Chengdu

54.3 Achieving Fast Response Time in Fringe-field Switching Mode with New Liquid Crystal Materials (9:10-9:30)

Hao Zhou, TCL China Star Optoelectronics Technology Co., Ltd.

54.4 The Research on Improving Image Quality of Splicing Exposure Equipment Based on Various Display Modes (9:30-9:50)

Lin Li, Chengdu BOE Display Sci-tech Co., Ltd.

54.5 Study on the Formation Mechanism and Influence Factors of Sensitive Mura in Low Cell Gap TV Products (9:50-10:10)

Bin Xie, Wuhan BOE Optoelectronics Technology Co., Ltd.

Session 55: OLED Device Physics-Measurement and Characterization (OLEDs)

Tuesday, March 25/9:40-11:00/ Grand Room C

Chair: Yiming Xiao (肖一鸣), Visionox Technology Inc.

55.1 *Invited Paper:* Study on Intrinsic and Extrinsic OLED Degradation by Utilizing μ-PL with Gradient Shaping Preparation and GCIB-XPS/REELS (9:40-10:00)

Kentaro Harada, OPERA Solutions Inc.

55.2 Exciton Dynamics and Degradation Mechanism in TADF OLEDs Assessed by Modulated Electroluminescence Spectroscopy (10:00-10:20)

Daniele Braga, Fluxim AG

55.3 The Investigation on OCA Failure Mode in AMOLED Foldable Display (10:20-10:40)

Guangbing Sun, Xiamen Tianma Display Technology Co., Ltd.

55.4 Enhancing the Efficiency of Organic Light-emitting Diodes at High Luminance Using a Simple Plasmonic Nanofilm (10:40-11:00)

Di An, Shanghai Jiao Tong University

Session 56: Printed TFT (Active-Matrix Device & Printed Display Joint Session)

Tuesday, March 25/10:40-12:00/ Grand Room A

Chair: Guowen Yan, Hefei Visionox Technology Co., Ltd.

56.1 High Stability PEALD-InGaZnO Thin Film Transistors Realized by Thickness Optimization and Intercalation of Al2O3 Passivation Layers (10:40-11:00)

Jiawei Zhang, Shandong University

56.2 Printable 2D Semiconductors for CMOS Circuits (11:00-11:20)

Taoyu Zou, Pohang University of Science and Technology

56.3 The Effects of Oxides Deposited Using Different Precursors on the Characteristics of Top-Gate Indium-Tin-Zinc Oxide Thin-Film Transistors with Self-Aligned, Oxygen-Plasma Activated Source/Drain Regions (11:20-11:40)

Xinying Xie, The Hong Kong University of Science and Technology

56.4 Wafer-scale Carbon Nanotube Thin Film Transistors for New Display Driving Applications (11:40-12:00)

Jiaqi Li, University of Science and Technology of China

Session 57: Micro-LED Driving and Control (EMQ-MicroLED)

Tuesday, March 25/10:00-11:40/ Grand Room B

Chair: Shuli Wang, Xiamen University

57.1 A New Micro-LED and OLED Hybrid red Sub-pixel Circuit and Hybrid ALCC (Auto Luminance and Color Calibration) Technology (10:00-10:20)

Junghoon Kim, LX semicon

57.2 An Optimized Simultaneous Emission Pulse Width Modulation Driving Method for Micro-LED Pixel Circuit Based on Thin Film Transistor Substrate (10:20-10:40)

Yingteng Zhai, Shanghai Tianma Microelectronics Co., Ltd.

57.3 Image Sticking Compensation of MLED Splicing Screen based on Temperature Sensor Perception (10:40-11:00)

Feng Hou, BOE Technology Group

57.4 Research on Shot-mura Improvement of Glass-based Micro-LED Display (11:00-11:20)

Wenqi Zhou, Tianma Advanced Display Technology Institute (Xiamen) Co., Ltd.

57.5 Research on Mini/MicroLED in the High-end Display (11:20-11:40)

Yenheng Huang, Taiwan Chung Cheng University

Session 58: Touch Designs and Applications (Touch & Interactive Displays)
Tuesday, March 25/10:20-11:40/ Function Room 402
Chair: Chaoping Chen (陈超平), Shanghai Jiao Tong University
58.1 *Invited Paper:* Tactile Design Based on The Resonance of Transparent Haptic Device (10:40-11:00)
Hui Hua (花慧), BOE Technology Group Co., Ltd.
58.2 Mechanoluminescence for Advanced Tactile Sensing Applications (11:00-11:20)
Yixi Zhuang, Xiamen University
58.3 Extremely Low Power Consumption Design for LCD Incell-touch Panel (11:20-11:40)
Yuanxiang Xie, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
58.4 Carbon Nanotube TFT Pressure Sensor for Interactive Displays (11:40-12:00)
Chaoyan Sun, Peking University

Session 59: Mini-LED and Ultra High-Definition Display (Display System)
Tuesday, March 25/10:20-12:00/ Function Room 403
Chair: Peter Ren, New Vision Display
59.1 *Invited Paper:* Field Sequential Color LCD for Large-Size UHD Display Applications: Opportunities and Challenges (10:20-10:40)
Jinglun He (贺靖伦), Hisense Visual Technology Co., Ltd.
59.2 Multi-region Variable Refresh of LTPO Technology (10:40-11:00)
Yuqing Wang, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)
59.3 High-resolution and High-refresh Rate Display Drive System Based on FPGA Platform (11:00-11:20)
Shizhong Li, TCL China Star Optoelectronics Technology Co., Ltd.
59.4 Comprehensive Study of Aging Effects on Miniaturized Micro-LEDs for Display Applications (11:20-11:40)
Ze Yuan, YONGJIANG Laboratory
59.5 Application Research on Brain-Computer Interface-based Intelligent TV with Partitioned Backlight Technology (11:40-12:00)
Wei Wei, Southeast University

Session 60: Emissive Display Processing (EMQ-Quantum Dots)
Tuesday, March 25/10:40-12:20/ Function Room 401
Chair: Fushan Li (李福山), Fuzhou University
60.1 *Invited Paper:* Optimizing Patterning Techniques in Quantum-dot Light-emitting Diodes for Full-color Displays (10:40-11:00)
Jeonghun Kwak, Seoul National University
60.2 *Invited Paper:* The Challenge of Ink Jet Printing Quantum Dots Light Emitting Diodes towards Commercialization (11:00-11:20)
Longjia Wu (吴龙佳), TCL Research

60.3 *Invited Paper:* High-performance White OLEDs and Colloidal Quantum-well LEDs (11:20-11:40)

Baiquan Liu (刘佰全), Sun Yat-Sen University

60.4 Rapid Transfer Printing based on the Structured Donor Substrate Realizing Full-color Perovskite Nanocrystal Patterns (11:40-12:00)

Xingliang Dai, Zhejiang University

60.5 Thermally Evaporated Blue Perovskite Light-emitting Diodes for Active-matrix Displays (12:00-12:20)

Runda Guo, Huazhong University of Science and Technology

Session 61: Printing Material & Ink (Printed Display)

Tuesday, March 25/10:20-12:00/ Meeting Room 205

Chair: Yuren Wang (王育人), Institute of Mechanics, Chinese Academy of Sciences

61.1 Development Trends of Printed Display Technology (10:20-10:40)

Dong Fu (付东), Guangdong Juhua Printed Display Technology Co., Ltd.

61.2 *Invited Paper:* Dendritic Thermally Activated Delayed Fluorescence Material with High Molecular Horizontal Orientation (10:40-11:00)

Wei Jiang (蒋伟), Southeast University

61.3 *Invited Paper:* High-Performance Inkjet Printed OLED Devices for IT Applications through Multi-component Materials Fusion Strategy (11:00-11:20)

Shipan Wang (王士攀), Guangdong Juhua Printed Display Technology Co., Ltd.

61.4 High-performance Inkjet-printed Blue QLEDs Based on Crosslinked Hole Transport Layers (11:20-11:40)

Liming Xie, Suzhou Institute of Nanotech and Nano-Bionics, Chinese Academy of Sciences

61.5 Non-destructive Cross-linking Strategies for Achieving Pixelated Quantum-dot Light-Emitting Diodes (11:40-12:00)

Yuan-Qiu-Qiang Yi, Okinawa Institute of Science and Technology Graduate University

Session 62: Components and Electronics for Flexible Displays (E-Paper and Flexible Displays)

Tuesday, March 25/9:40-10:40/ Meeting Room 203

Chair: Xidu Wang (王喜杜), Guangzhou OED Technologies., Inc.

62.1 *Invited Paper:* Ultra-flexible Monolithic Three-dimensional CMOS Circuits (9:40-10:00)

Min Zhang (张敏), The Chinese University of Hong Kong, Shenzhen

62.2 New Trends and AI Opportunities in Flexible Electronics Testing (10:00-10:20)

Eisuke Tsuyuzaki, Bayflex Solutions LLC

62.3 Optical Optimization of Rough Surfaces in Transparent Electrodes Using the Generalized Transfer Matrix Method (10:20-10:40)

Nguyen-Hung Tran, Jeonbuk National University

Session 63: Optical Component in AR/VR & 3D Display (Liquid-Crystal Technology)

Tuesday, March 25/10:20-12:00/ Function Room 405

Chair: Fan Chu (储繁), Beihang University

63.1 *Invited Paper:* Liquid Crystal Geometric Phase Elements and Its Application to Aerial Display (10:20-10:40)

Moritsugu Sakamoto, Nagaoka University of Technology

63.2 *Invited Paper:* Switchable Lens Array and Directional Beam Splitter Array for Light Field Displays (10:40-11:00)

Jiangang Lu (陆建钢), Shanghai Jiao Tong University

63.3 *Invited Paper:* High Performance 3D Display Technology Based on Time-sequential Liquid Crystal Device (11:00-11:20)

Fan Chu (储繁), Beihang University

63.4 *Invited Paper:* A Novel Technology to Achieve 3D Polarized Stereoscopic Display Utilizing Glass Patterned Retarder (11:20-11:40)

Hongming Zhan (占红明), BOE Technology Group Co., Ltd.

63.5 Achromatic Pancharatnam-berry Phase Liquid Crystal Lens (11:40-12:00)

Xiaojin Huang, Shanghai Jiao Tong University

Session 64: OLED Display-Processing & Driving (OLEDs)

Tuesday, March 25/13:30-15:10/ Grand Room C

Chair: Xuhui Zhu (朱旭辉), South China University of Technology

64.1 *Invited Paper:* The Key Performance Metrics of OLED Technology: Present and Future (13:30-13:50)

Zhaoqun Zhou, Universal Display Corporation

64.2 A Customized H.264/AVC Codec for AMOLED Demura Compensation Data (13:50-14:10)

Gaobo Yang, Hunan University

64.3 Study on TFT Device Model and Residual Image in OLED Display on Polyimide Substrate (14:10-14:30)

Yunpeng Zhang, Chengdu BOE Optoelectronics Group Co., Ltd.

64.4 Super High PPI Panel Design on GOLED (Glass Base OLED) (14:30-14:50)

Yuhsiung Feng, Hefei Govisionox Technology Co., Ltd. (Visionox' s Affiliated Company)

64.5 MFDBI for Multi Frequency Drive OLED Panel (14:50-15:10)

Pengcheng Jia, Xiaomi Technology Co., Ltd.

Session 65: Display Application (Display Application)

Tuesday, March 25/13:30-15:50/ Grand Room A

Chair: Yanbing Qiao (乔艳冰), Mianyang HKC Optoelectronics Technology Co., Ltd.

65.1 *Invited Paper:* Studies in System-aware Hologram Generation and Compression (13:30-13:50)

Yifan Peng (彭祎帆), The University of Hong Kong

65.2 Research on the Integration Technology of In-screen Ambient Light Sensor for Wearable Applications (13:50-14:10)

Boshi Feng, BOE Technology Group Co., Ltd.

65.3 Narrative Application of Digital Holography in Agricultural Heritage Exhibitions (14:10-14:30)

Zhilin Zhu, Holographic Arts Center of Beijing Institute of Graphic Communication

65.4 Depth-variable Pancake VR Enabled by a Light Field Display Engine (14:30-14:50)

Qimeng Wang, Sun Yat-Sen University

65.5 Multi-mode Fusion Human-computer Interface Based on EEG and EOG (14:50-15:10)

Tong Zou, Southeast University

65.6 Innovations in Smartphone Design Using Reflective Holographic Technology (15:10-15:30)

Xiaoshuang Ma, Holographic Arts Center of Beijing Institute of Graphic Communication

65.7 Multi-view Glasses-free 3D Content Generation based on Gaussian Splatting (15:30-15:50)

Changxiong Zheng, Southern University of Science and Technology

Session 66: MicroLED Display (EMQ-MicroLED)

Tuesday, March 25/13:30-15:30/ Grand Room B

Chair: Chunhui Yan (闫春辉), Narvellux Technologies

66.1 *Invited Paper:* The Evolution of Micro LED Technology: Challenges, Solutions, and Volume Production (13:30-13:50)

Yun-li Li (李允立), PlayNitride

66.2 *Invited Paper:* Challenges to Enable Micro-LED Micro-displays Promises for Augmented Reality (13:50-14:10)

Ivan-Christophe Robin, Aledia

66.3 *Invited Paper:* Research and Application of Dark State Structure at Splicing Seam of Micro-LED (14:10-14:30)

Weile Zhang (张维乐), Chengdu Vistar Optoelectronics Co., Ltd.

66.4 *Invited Paper:* High Brightness, High Resolution, and High Transparency MicroLED Displays (14:30-14:50)

Reza Chaji, VueReal Inc

66.5 *Invited Paper:* Next-generation Micro-displays: Advanced Lasing Pixels with Group III-Nitride Nanorods (14:50-15:10)

Yong-Ho Ra, Jeonbuk National University

66.6 7.5-inch P0.4 Active-matrix LTPS Micro-LED Splicing Screen (15:10-15:30)

Yunyuan Zhang, Tianma Advanced Display Technology Institute (Xiamen) Co., Ltd.

Session 67: Antenna-on-Display (AoD) and Sensing (Touch & Interactive Displays)

Tuesday, March 25/13:30-15:30/ Function Room 402

Chair: Huan-Chu Huang (黃奐儲), Visionox Technology Inc.

67.1 *Invited Paper:* Innovative Conceptual Design of a 3-in-1 Antenna-on-Display (AoD) for Smartphones (13:30-13:50)

Huan-Chu Huang (黃奐儲), Visionox Technology Inc.

67.2 The Influence of Cover Glass View Area Design on the Integrated Light Sensing Function of LCD (13:50-14:10)

Fangyi Liu, Beijing BOE Display Technology Co., Ltd.

67.3 Recognition of Proximity and Contact Processes by Oxide Thin Film Transistor Sensors (14:10-14:30)

Shixin Liu, Fudan university

67.4 Transformer-Based Hand Recognition for Wearable Interactive Displays (14:30-14:50)

Chaoping Chen, Shanghai Jiao Tong University

67.5 Oxide Thin Film Transistor Sensors: from Proximity to Contact Perception (14:50-15:10)

Guodong Zhu, Fudan University

67.6 Interactive Glasses-free 3D Display for Medical Education (15:10-15:30)

Zhiliang Tang, South University of Science and Technology of China

Session 68: 3D Display System (Display System)

Tuesday, March 25/13:30-15:50/ Function Room 403

Chair: Chun-Wei Tsai (蔡君伟), Taiwan United University

68.1 *Invited Paper:* Enhancing Field of View in 3D Floating Holographic Display Using Multiple LCoS-SLMs (13:30-13:50)

Chun-Wei Tsai/Shih-Hung Lin, Taiwan United University/Taiwan Yunlin University of Science and Technology

68.2 High-resolution Integral Imaging based on Homologous Pixels Global Correction for the Elimination of Voxel Diffusion (13:50-14:10)

Qiang Li, Xidian University

68.3 Viewing Angle Enhanced Integral Imaging Light Field 3D Display Using a Double-Layer Lens Array (14:10-14:30)

Yuang Chen, Sichuan University

68.4 Time-multiplexed Multi-user Naked Eye 3D Display (14:30-14:50)

Ziyang Liu, Southern University of Science and Technology

68.5 Voxel Analysis and Targeted Optimization Method for Resolution Enhanced Integral Imaging Light Field Display (14:50-15:10)

Yijian Liu, Beihang University

68.6 Multi-depth 3D Head-up Display Based on Light Field Display and Trichroic Prism (15:10-15:30)

Yihang Li, Beihang University

68.7 Integral Imaging 3D Display with Large Viewing Angle (15:30-15:50)

Linbo Zhang, Beihang University

Session 69: Cadmium Free Quantum Dot Electroluminescence (EMQ-Quantum Dots)

Tuesday, March 25/13:30-15:30/ Function Room 401

Chair: Bo Qiao (乔泊), Beijing Jiaotong University

69.1 *Invited Paper:* Highly Efficient, Stable ZnSeTe Quantum Dot-based Electroluminescence (13:30-13:50)

Heesun Yang, Hongik University

69.2 *Invited Paper:* Long-range Order Enabled Stability in Quantum Dot Light-emitting Diodes (13:50-14:10)

Yakun Wang (王亚坤), Soochow University

69.3 *Invited Paper:* Bright and Stable Perovskite Light-emitting Diodes (14:10-14:30)

Dawei Di (狄大卫), Zhejiang University

69.4 Heavy-metals-free Blue Light-emitting Quantum Dots for Color Conversion and Emissive Display Applications (14:30-14:50)

Artur Podhorodecki, QNA Technology S.A.

69.5 Reducing Emission Linewidth of Blue ZnSeTe Quantum Dots through a Large-sized, Low-doped Strategy (14:50-15:10)

Hongli Liu, Tianjin University

69.6 Efficient Top Emission Light-emitting Diode Based on Cadmium-free Quantum Dots (15:10-15:30)

Shuaibing Li, BOE Technology Group Co., Ltd.

Session 70: Printing Equipment & Printed TFT (Printed Display)
Tuesday, March 25/13:30-14:30/ Meeting Room 205
Chair: Yue Lin (林岳), Xiamen University
70.1 *Invited Paper:* OLED Inkjet Printing Manufacturing Technologies and Equipment (13:30-13:50)
Jiankui Chen (陈建魁), Wuhan National Innovation Technology Optoelectronics Equipment Co., Ltd.
70.2 R2R Gravure and Flexography Printed Carbon Nanotube-based TFT-AM (13:50-14:10)
Junfeng Sun, Huzhou University
70.3 Fully Printed High-resolution Low-voltage IGZO Optoelectronic Synaptic Transistor Arrays for Visual Neural Computation (14:10-14:30)
Shuangshuang Shao, Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences

Session 71: Electrophoretic Displays (E-Paper and Flexible Displays)
Tuesday, March 25/13:30-15:10/ Meeting Room 203
Chair: Biao Tang (唐彪), South China Normal University
71.1 *Invited Paper:* Fast Updated Driving Methods for Color Microcapsule Electrophoretic Display (13:30-13:50)
Xidu Wang (王喜杜), Guangzhou OED Technologies., Inc.
71.2 *Invited Paper:* Mass Production of OTFT Backplanes and Flexible EPDs in Existing FPD Lines (13:50-14:10)
Paul Cain, FlexEnable Technology Limited
71.3 Design Considerations for Ink-on-Array™ E-Paper Device Structure (14:10-14:30)
Hailiang Sheng, Sun Yat-Sen University
71.4 Yarn-based Electrophoretic Display Fibers with Dielectric Materials Assisted Planarization (14:30-14:50)
Lisha Peng, Sun Yat-Sen University
71.5 Charging and Electrokinetic of Particles in Nonpolar Media for Electrophoretic Display (14:50-15:10)
Jinglan Yang, Sun Yat-Sen University

Session 72: LCD New Materials & Application 1 (Liquid-Crystal Technology)
Tuesday, March 25/13:30-15:30/ Function Room 405
Chair: Zhibo Sun (孙栉博), The Hong Kong University of Science and Technology
72.1 *Invited Paper:* Behavior and Applications of Ferroelectric Nematic Liquid Crystals (13:30-13:50)
Norihiko Tanaka, Merck
72.2 *Invited Paper:* LC and Anisotropic Materials Technologies. Development, Challenges for Displays and Devices Application (13:50-14:10)
Vladimir Bezborodov, Belarusian State Technological University

72.3 *Invited Paper:* Unique Liquid Crystal Materials and New Technologies for Optoelectronics, Photonics and Microwave Application (14:10-14:30)

Valeri Lapanik, Institute of Applied Physical Problems

72.4 *Invited Paper:* The Mechanism of Motion during the Orientation Process of 2D-LC (14:30-14:50)

Tianzi Shen (沈田子), Beihang University

72.5 *Invited Paper:* Azodye Photoaligned Nanolayers for New Liquid Crystal Devices: Physics and Applications (14:50-15:10)

Vladimir Chigrinov, the Hong Kong University of Science and Technology

72.6 Subterahertz Spatial Light Modulators based on Liquid Crystal Metastructures for 6G and Imaging Applications (15:10-15:30)

Valeri Lapanik, Institute of Applied Physical Problems

Session 73: OLED-Theory and Simulation (OLEDs)

Tuesday, March 25/15:20-17:00/ Grand Room C

Chair: Gaobo Yang, Hunan University

73.1 *Invited Paper:* OFSS: A Simulation Platform for Optical Analysis and Optimization of OLEDs (15:20-15:40)

Honggang Gu (谷洪刚), Huazhong University of Science and Technology

73.2 Transforming Display R&D: Integrated Physics- and ML-driven Technologies with Cloud-based Collaboration for Accelerated Innovation (15:40-16:00)

Hadi Abroshan, Schrödinger Inc.

73.3 An Efficient Method to Evaluate the Effects of Different Pixel Shift Orbits Based on SED Model (16:00-16:20)

Mengda Xu, Shenzhen ESWIN Computing Technology Co., Ltd.

73.4 Numerical Analysis of Trap-induced Negative Capacitance in Organic Light-emitting Diodes (16:20-16:40)

Daniele Braga, Fluxim AG

73.5 Machine Learning-guided Design and Mechanistic Investigation into High-efficiency and Stable OLED Materials (16:40-17:00)

Yiming Shi, Beijing Jiaotong University

Session 74: Display Effect (Display Application)

Tuesday, March 25/16:00-17:20/ Grand Room A

Chair: Zhifu Li (李治福), TCL CSOT

Co-Chair: Xinzhu Sang (桑新柱), Beijing University Of Posts and Telecommunications

74.1 *Invited Paper:* Recent Advances in Amorphous Silicon TFT LCD Technology: Performance Enhancement and Competitiveness Analysis (16:00-16:20)

Yanbing Qiao (乔艳冰), Mianyang HKC Optoelectronics Technology Co., Ltd.

74.2 New Structure for Improving the Reliability of the Camera Hole Area in AMOLED (16:20-16:40)

Zhicong Zhai, Hefei Visionox Technology Co., Ltd.

74.3 Study on MLCD System Architecture and Picture Quality Improvement (16:40-17:00)

Hao Xing, TCL China Star Optoelectronics Technology Co., Ltd.

74.4 Research on Character Input System Based on Partitioned Backlight SSVEP LCD (17:00-17:20)

Chao Liu, Southeast University

Session 75: MiniLED Backlight and Micro-LED Applications (EMQ-MicroLED)

Tuesday, March 25/15:40-17:20/ Grand Room B

Chair: Liancheng Wang (汪炼成), Central South University

75.1 *Invited Paper:* Novel LCD Display Technology with Multi-color EPLED Backlighting (15:40-16:00)

Chunhui Yan (闫春辉), Narvellux Technologies

75.2 *Invited Paper:* GaN Micro-LED Integrated with Metasurfaces for AR and 3D Display Application (16:00-16:20)

Liancheng Wang (汪炼成), Central South University

75.3 Revolutionizing Photolithography: High-power AlGaN Deep-UV Micro LED Displays for Maskless Pattern Transfer in Semiconductor Fabrication (16:20-16:40)

Feng Feng, the Hong Kong University of Science and Technology

75.4 Glasses-free 3D Display for Cinema Applications Employing a MiniLED Display and Radial Parallax Barrier (16:40-17:00)

Phil Surman, South University of Science and Technology of China

75.5 A Technologic Review of Mini-LED Direct Back Lights for High-end Liquid Crystal Displays (17:00-17:20)

Xianqin Meng, BOE Technology Group Co., Ltd.

Session 76: Components and Processes (Touch & Interactive Displays)

Tuesday, March 25/15:40-17:00/ Function Room 402

Chair: Chaoping Chen (陈超平), Shanghai Jiao Tong University

76.1 *Invited Paper:* Photo-responsive Perovskite Light-emitting Diodes and Their Potential Applications in Displays (15:40-16:00)

Chunxiong Bao (包春雄), Nanjing University

76.2 An Optical Method of Simulating Crosstalk (16:00-16:20)

Qiong Song, Xiamen Tianma Optoelectronic Co., Ltd.

76.3 Transparent PZT Thin Film with High Piezoelectricity on Glass Substrates (16:20-16:40)

Qiumei Wei, BOE Technology Group Co., Ltd.

76.4 Flexible Graphene Pressure Sensor Array with Biomimetic Microstructure Distributed by Matrix Points (16:40-17:00)

Yucheng Huang, South China University of Technology

Session 77: 3D Display Application (Display System)

Tuesday, March 25/16:00-17:40/ Function Room 403

Chair: Qiang Li, Xidian University

77.1 *Invited Paper:* A Temporally Consistent Method for Video Enhancement (16:00-16:20)

Qichong Tian (田其冲), Shenzhen TCL New Technology Co., Ltd.

77.2 High-quality Large Off-axis Hologram Optimization for Compact Holographic Displays (16:20-16:40)

Ruichen Wang, Shanghai Jiao Tong University

77.3 Field Sequential Color LCD with Dynamic Weights between Color Breakup and Distortion Enabled by Deep Learning (16:40-17:00)

Feiyi Wu, Sun Yat-Sen University

77.4 High-quality Metasurface Holographic Display by Improved Four Elements (17:00-17:20)

Shuo Sun, China Jiliang University

77.5 Sixfold-resolution Light Field Display Using a Field Sequential Color LCD and Super Resolution Based on Incoherent Synthetic Apertures (17:20-17:40)

Yifan Ding, Sun Yat-Sen University

Session 78: Photoluminescence (EMQ-Quantum Dots)

Monday, March 24/15:40-17:20/ Function Room 401

Chair: Yakun Wang (王亚坤), Soochow University

78.1 *Invited Paper:* Improvement of PL Performance of Quantum Dot Color Conversion Films (15:40-16:00)

Yi Zhang (张毅), Chengdu Vistar Optoelectronics Co., Ltd.

78.2 *Invited Paper:* Regulation of Energy Band and Luminescence Properties in Lead Halide Perovskite Materials via Lattice Strain (16:00-16:20)

Bo Qiao (乔泊), Beijing Jiaotong University

78.3 *Invited Paper:* Luminescent Materials for Advanced Displays (16:20-16:40)

Rongjun Xie (解荣军), Xiamen University

78.4 *Invited Paper:* Highly Stable Luminescent Siloxane Encapsulated Nanocrystals Resin for Full-Color Converting Display Applications (16:40-17:00)

Byeong-Soo Bae, Korea Advanced Institute of Science and Technology (KAIST)

78.5 UV-curable Inkjet Printing Perovskite Inks and Its Application for Color Conversion (17:00-17:20)

Yongming Yin, Shenzhen MSU-BIT University

Session 79: Printed Displays & Process (Printed Display)

Tuesday, March 25/14:40-16:20/ Meeting Room 205

Chair: Shipan Wang (王士攀), Guangdong Juhua Printed Display Technology Co., Ltd.

79.1 *Invited Paper:* Realization of TCL CSOT First Mass Produced 21.6inch 4K Display Using Inkjet Printing Technology (14:40-15:00)

Chenglei Nie (聂诚磊), TCL China Star Optoelectronics Technology Co., Ltd.

79.2 *Invited Paper:* Control of Evaporative Film Formation for High-performance Printed Displays (15:00-15:20)

Yuren Wang (王育人), Institute of Mechanics, Chinese Academy of Sciences

79.3 *Invited Paper:* On the Perovskite Quantum Dot Color Conversion Layer for Micro-LED (15:20-15:40)

Yue Lin (林岳), Xiamen University

79.4 *Invited Paper:* Fully Printed Large-area Active-matrix Electrochromic Displays (15:40-16:00)

Aimin Song (宋爱民), Southern University of Science and Technology

79.5 Tandem Structure in Solution Processed OLEDs (16:00-16:20)

Ying Chen, Guangdong Juhua Printed Display Technology Co., Ltd.

Session 80: Reflective Displays (E-Paper and Flexible Displays)

Tuesday, March 25/15:20-17:00/ Meeting Room 203

Chair: Xidu Wang (王喜杜), Guangzhou OED Technologies., Inc.

80.1 *Invited Paper:* Electrowetting-based Color Video Electronic Paper (15:20-15:40)

Biao Tang (唐彪), South China Normal University

80.2 *Invited Paper:* Architecture of High-resolution Full-Color Reflective Cholesteric Liquid Crystal Display for Signage Applications (15:40-16:00)

I-An Yao (姚怡安), Innolux

80.3 Solar-embedded Outdoor E-paper Display (16:00-16:20)

Chih-Wei Chen, IRIS Optronics Co., Ltd.

80.4 High-resolution Electrochromic Non-Emissive Displays Based on Direct Optical Patterning of WOx Nanoparticles (16:20-16:40)

Chang Gu, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences

80.5 Multi-pixel Addressability on an Electrophoretic Display Fiber (16:40-17:00)

Weichun Chen, Sun Yat-Sen University

Session 81: LCD New Materials & Application 2 (Liquid-Crystal Technology)

Tuesday, March 25/15:40-17:40/ Function Room 405

Chair: Abhishek K Srivastava, The Hong Kong University of Science and Technology

81.1 *Invited Paper:* Cinnamate Phosphonic Acid as Monomolecular Alignment and Their Application in Display and Photonic Devices (15:40-16:00)

Abhishek K Srivastava, The Hong Kong University of Science and Technology

81.2 *Invited Paper:* New Concept of High Photosensitive Strong Anchoring Photoalignment (16:00-16:20)

Alexander Muravsky, MTLCD lab, Minsk, Belarus

81.3 *Invited Paper:* Progress, Opportunities and Challenges of Ferroelectric Liquid Crystal Displays for High Brightness Liquid Crystal Displays (16:20-16:40)

Zhibo Sun (孙栉博), The Hong Kong University of Science and Technology

81.4 *Invited Paper:* Physical Mechanisms Responsible for The Spectral and Mechanical Features of Structured Thin-film Polarizers for Display Technology (16:40-17:00)

Natalia Kamanina, Vavilov State Optical Institute

81.5 Strategies for Improving the Display Quality of Hybrid Splicing Display based on TFT-LCD and COB-LED (17:00-17:20)

Junyang Nie, TCL China Star Optoelectronics Technology Co., Ltd.

81.6 Design and Fabrication of Passive LC-based Q-plates for Laguerre-gaussian Beam Generation (17:20-17:40)

Pouya Nosratkhah, The Hong Kong University of Science and Technology

Poster Session

P 1 AMD

P 1.1 Contact Resistance Reduction in IGZO TFTs Using Al-Induced Microstructure Regularization

Jingting Sun, Ningbo Institute of Material Technology & Engineering, CAS

P 1.2 Light Stability and Photoelectric Applications of SnGaO Thin-Film Transistors

Jianwen Yang, Shanghai Normal University

P 1.3 High Mobility Oxide for DEMUX-Driven In-cell Touch LCD with Improved Resolution and Frame Rate

Lamei Luo, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.4 High-Performance Low-Temperature Polycrystalline Silicon Thin-Film Transistors Fabricated via a Specific Laser Scanning Direction

Peng Dai, School of Integrated Circuits, Shandong University

P 1.5 Thermal Stability of Short Channel Elevated-Metal Metal-Oxide Thin-Film Transistors

Yujie Jiang, Soochow University

P 1.6 Wide-Operation-Margin and Simplified GOA Circuit with Dual-Gate High Mobility Oxide TFTs and Narrow Border

Zhihui Cai, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.7 Mechanism Research and Optimization Design of Inadequate Vth Compensation for AMOLED Pixel Circuit

Weibin Zhang, Visionox Technology Inc.

P 1.8 Study on the Correlation Between Different Voltage Regions of Driver TFT Transfer Characteristic Curve and AMOLED Display Performance and Its Improvement Direction

Weibin Zhang, Visionox Technology Inc.

P 1.9 The Degradation Behavior of Oxide Devices During Environmental Reliability Test and Their Rapid Recurrences by Current Impact

Hao Long, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.10 Optimization of BCE High Mobility Oxide TFT Technology

Huanqin Zheng, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.11 High-performance Top Gage Oxide TFT Achieving high Mobility and a Short Channel

Zikang Pan, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.12 A New Design of Gate Driver Circuit Used in a-Si TFT LCD

Zhixin Sun, Peking University

P 1.13 Ultrashort channel IGZO Thin-film Transistors with Silicon Nanowires Gated Design

Le Weng, Nanjing University

P 1.14 Research on Power Consumption Simulation Model of Mobile LCD GOA

Tengfei Ding, Beijing BOE Display Technology Co., Ltd.

P 1.15 Hf Induced Crystallized InSnZnO Thin Film and Its Application in TFTs

Xiaocheng Wang, South China University of Technology

P 1.16 High Mobility Channel Materials Provide Support for the Integration of Logic Devices on Display Glass

Wusheng Li, BOE Technology Group Co., Ltd.

P 1.17 Novel Methods for Hump Reduction in LTPS TFTs

Zhuang Li, Wuhan China Star Optoelectronic Technology Co., Ltd.

P 1.18 Analysis of Hump Characteristic under Positive Bias Temperature Stress in Amorphous InGaZnO Thin-Film Transistors

Xiaoliang Zhou, TCL China Star Optoelectronics Technology Co., Ltd.

P 1.19 Effect of Passivation Layer on the Electrical Properties of High Mobility Oxide Thin Film Transistors

Yuan Chen, Wuhan TIANMA Microelectronics Co., Ltd.

P 1.20 Investigation of Illumination and Temperature on the Stability of Indium-Gallium-Zinc-Oxide Thin-Film Transistors

Yuli He, Wuhan China Star Optoelectronics Technology Co., Ltd.

P 1.21 Enhancing the Electrical Performance of ITZO Thin-Film Transistors with IZO Modified Layer

Xi Zhang, Beijing Engineering Research Center for Mixed Reality and Advanced Display Technology

P 1.22 A Novel High Gain Amplifier Using N-Type Oxide TFTs

Zhaoyu Deng, South China University of Technology

P 1.23 Reliability of Amorphous InGaZnO4 Thin-Film Transistors with a Metal Cover Layer under Negative Bias Temperature Illumination Stress

Shujiong Hao, Soochow University

P 1.24 2Metal Pixel Layout Cross-hole Design at High PPI and 1Hz AoD Display Frequency

Tingting Zhang, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

P 1.25 Non-Volatile Charge Trap Memory Transistor Employing Indium Tungsten Oxide Thin Film as Active Channel and Charge Trap Layer

RuiPeng Shen, Shenzhen University

P 1.26 Enhancing the Photoresponse of InZnO Thin-Film Transistors via Perovskite Coating and Electrode Material Optimization

Mingjun Zhang, Shenzhen University

P 1.27 Mechanism and Improving Methods of the Short-term Image Sticking in AMOLED Display Based on 7T1C LTPS TFT Pixel Circuit

Enqing Guo, Visionox Technology Inc.

P 1.28 GOA-AI: Designing the Size of Gate Driver on Array Circuits Using NSGA-III(II) multi-objective optimization algorithm framework Combined with Bayesian Optimization

Yanling Chen, TCL China Star Optoelectronics Technology Co., Ltd.

P 1.29 Effect of ITO Electrode with Different Oxygen Contents on the InZnO TFT

Wenlong Chen, Peking University

P 1.30 Compact Modeling and Simulation of Circuit Aging in Amorphous Silicon LCD

Chenyang Lv, TCL China Star Optoelectronics Technology Co., Ltd.

P 1.31 Improving the Reliability of High-Mobility Oxide TFTs through TCAD Simulation of Optimizing Device Structure

Hejing Sun, Shenzhen China Star Optoelectronics Technology Co., Ltd.

P 1.32 Research on Low Power OLED Display Technology Based on SDP Scheme

Ling Shi, Chengdu BOE Optoelectronics Technology Co., Ltd.

P 1.33 High-Performance Indium-Gallium-Tin-Oxide Thin-Film Transistors on Flexible Polyimide

Chaewon Jeong, Hanyang University

P 1.34 Recent Developments in Vertical Amorphous Oxide Semiconductor (AOS) Thin-Film Transistor (TFT) Devices

Qianqian Bu, BOE Technology Group Co., Ltd.

P 1.35 High-performance Thin-Film Transistors with ITZO/IGZO Heterojunction

Zhenyuan Xiao, Hanyang University

P 1.36 The Research on Asymmetric Electrical Properties of a-IGZO Vertical TFTs

Chuanbao Luo, TCL China Star Optoelectronics Technology Co., Ltd.

P 1.37 Research on Patterned Cu Growth in Electrochemical Process of Large Size Glass Substrate

Jie Wang, Hefei BOE Rui Sheng Technology Co., Ltd.

P 1.38 Research on Adhesion Mechanism of Ni-Au and Cu layers in ENIG Process of COG MLED Backplane

Ting Zeng, BOE Technology Group Co., Ltd.

P 1.39 High Performance Top Gage Oxide TFT Technology for Demux Driving Notebook LCD

Huanqin Zheng, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.40 ELVSS in AA-Attaining High Brightness and Cutting Power Consumption, Optimizing Design Via Simulation Model

Lei Lv, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

P 1.41 Improvements on the Display Uniformity of TFT-LCD Panel

Yi Liu, Beijing BOE Display Technology Co., Ltd.

P 1.42 The Impact of Polysilicon Low Power Etching Process on LTPS TFT Characteristics and Reliability

Dongliang Yu, Visionox Technology Inc.

P 1.43 Mobility Enhancement in Dual-Gate a-IZO Thin-Film Transistors through Low-Pressure Oxygen Annealing

Yuhan Zhang, Peking University

P 1.44 A Novel Pixel Design for High-Definition and High-Frame Rate Display

Yi Gong, Anhui Jianzhu University

P 1.45 A Novel Method for Extracting Monte Carlo Models

Wen Dai, Empyrean Technology Co., Ltd.

P 1.46 Investigating the Relationship between TFT-LCD Device Life and Degradation Behavior of Amorphous Silicon Thin Film Transistors

Zhan Wei, Beijing BOE Display Technology Co., Ltd.

P 1.47 The Novel Temperature and Voltage Sensors Achieved by High-mobility Oxide TFT

Yuhua Dong, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 1.48 Reliability Analysis of IGZO-TFT in X-ray Imaging Detection Technology

Wei Guo, Hefei University of Technology

P 1.49 The Effects of Post-annealing and Pre-annealing Treatments on PEALD Deposited IGZO Top Gate TFT

Shuaiying Zheng, Shandong University

P 1.50 Performance Analysis of IGZO TFT for Flexible X-Ray Imaging Sensors

Zhe Dong, Hefei University of Technology

P 1.51 Study of Atomic Layer Deposition of Aluminum Oxide for Thin Film Transistor Applications

ZhaoXing Fu, Ningbo Institute of Material Technology & Engineering, CAS

P 1.52 High Performance Silicon Nanowire Thin Film Transistors with Step-necked Ultrathin Channels

Lei Wu, Nanjing University

P 1.53 Electrical Properties of a New Quaternary Transparent Conductive IGZTO Thin Film

Zhiyi Li, Chongqing University

P 1.54 Fabrication of BCE Short Channel Oxide Thin Film Transistors

Kai Zhou, Shenzhen China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 2 Applied Vision

P 2.1 A Stereoscopic Vision Training Scheme in VR: Experimental Design and Validation

Zhengkai Chen, Hohai University

P 2.2 Discussion and Analysis of Motion Sickness in New 3D Display Technologies

Fu- Jung Hu, Taiwan University of Science and Technology

P 2.3 Research on Brightness Adjustment Strategy Based on Different Display Image in the Night

Nailong He, Southeast University

P 2.4 A Study of Dynamic Dimming Image Extraction Based on Mini-LEDs for Zones

Junhua Lei, Xiamen University

P 2.5 A Color Compensation Scheme for Solving Metamerism Failure Between OLED and LCD Displays

Jingxiao Yan, Xiaomi Corporation

P 2.6 Research on Optimization of Edge Pixel Color Deviation in MNT Displays

Mingrong Guo, TCL China Star Optoelectronics Technology Co., Ltd.

P 2.7 Optimization of HDR Image Processing Algorithm in Natural Scene

Aoxiang Jia, Fuzhou University

P 2.8 Eye-Tracking Systems for Interactive Display Applications

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Zuojia Wang, TCL China Star Optoelectronics Technology Co., Ltd.

P 19.7 Improvement of Image Quality of Infrared Camera Behind LCD Screen and Its Application in DMS

Yating Wen, Shenzhen China Star Optoelectronics Technology Co., Ltd.

P 19.8 Highly Reliable BCE Structured IGZO Thin-film Transistors for Automotive LCD Applications

Chenjing Xu, Tianma Microelectronics Co., Ltd.

P 19.9 High-Efficiency Collimated MicroLens Design with Integrated Local Dimming Capability for Automotive Display Applications

Ye Yan, Tianma Microelectronics Co., Ltd.

P 19.10 Research on Under Screen Camera and Tactile Feedback Scheme for Vehicle Display Module

Yue Zhai, Beijing BOE Display Technology Co., Ltd.

P 19.11 Performance Enhancement of Quantum Dot Optical Films (QDOFs) Used in Vehicle Display

Guobin Xu, Nanjing Bready Advanced Materials Technology Co., Ltd.

P 19.12 Optical Optimization by Refractive Index Matching of LTPS TFT Layers

Yidian Zhang, Tianma Microelectronics Co., Ltd.

P 19.13 Research and Application on the Hanging Ear Fracture of Optical Film for Vehicle Display Module

Jie Mei, TCL China Star Optoelectronics Technology Co., Ltd.

P 19.14 Distortion Correction Solution for High-definition Projective Displays in Automobiles

Longjun Chen, Tianma Microelectronics Co., Ltd.

P 19.15 Optical Film with Microstructures to Regulate Viewing Angle of HUD

Xiangjun Li, Hefei University of Technology

P 19.16 Research on RGBW Intelligent Light Sensing System for Automotive HUD

Yang Wang, BOE Corporation

P 19.17 Research of Optical Optimization in Direct-lit Active-Matrix Mini-LED Backlight

Mingzhe Lv, Tianma Microelectronics Co., Ltd.

P 19.18 Image Quality of HUD with Viewing-Angle-Regulation Optical Film

Chunhui Chen, Hefei University of Technology

P 19.19 A Novel Intelligent Temperature Controllable Vehicle LCD Screen Integrated with Temperature Sensor in the Cell

Wei Wang, Wuhan China Star Optoelectronics Technology Co., Ltd.

P 19.20 Research on the Process of Micro-lens Array Structure in Anti-peeping Automotive Display

Yanqiang Wang, BOE AMOLED R&D Center