会议详细议程终版（Final Program）

2026 International Conference on Display Technology
March 31-April 3, 2026 (Tuesday - Friday)
Conference: Yuelai International Convention Center
Exhibition: Chongqing International Expo Center
Chongqing, China

Opening Remark
开幕式
Wednesday, April 1/14:00-14:30/ Liangjiang Grand Ballroom A

Plenary Session
大会主旨演讲
Wednesday, April 1/14:30-17:00/ Liangjiang Grand Ballroom A
Chair: Xingqun Jiang (姜幸群), BOE Technology Group Co., Ltd.
Co-Chair: Zong Qin (秦宗), Sun Yat-sen University

Title: Inkjet Printing Manufacturing Technology and Equipment for Advanced Displays (14:30-14:55)
Zhouping Yin (尹周平), Huazhong University of Science and Technology

Title: Glass at the Center of AI Infrastructure: Advancing Packaging Solutions (14:55-15:20)
Daniel Tseng (曾崇凯), Corning Display Technologies China

Title: Computational Perception: Natural Human-AI Interface Technologies (15:20-15:45)
Achin Bhowmik, Starkey Hearing

Title: Beyond Display, Refresh the World (15:45-16:10)
Zhiqiang Liu (刘志强), BOE Technology Group Co., Ltd.

Title: High-Resolution Display: Innovative Practices and Future Prospects from Key Technology Breakthroughs to Industrial Integration (16:10-16:35)
Jianhua Zhang (张建华), Shanghai University

Short Course
短期课程
Short Course 1 (Language is English)
Tuesday, March 31/9:00-12:00/ Meeting Room 102A
Title: **Display 101**
显示 101
Ian Underwood, The University of Edinburgh & Sam Phenix, Phenix Consulting

Short Course 2 (Language is Chinese)
Tuesday, March 31/9:00-12:00/ Meeting Room 102B
Title: **OLED Materials and Devices**
OLED 材料与器件
Lian Duan (段炼), Tsinghua University

Short Course 3 (Language is Chinese)
Tuesday, March 31/9:00-12:00/ Meeting Room 103A
Title: **VR/AR Optical System Design: Principles and Engineering Processes**
VR/AR 光学系统设计：原理与工程工艺
Dewen Cheng (程德文), Beijing Institute of Technology

Short Course 4 (Language is Chinese)
Tuesday, March 31/9:00-12:00/ Meeting Room 103B
Title: **Color Science 101**
颜色科学 101
Minchen Wei (魏敏晨), The Hong Kong Polytechnic University

Seminar
专题技术讲座
Seminar 1 (Language is Chinese)
Tuesday, March 31/14:00-15:30/ Meeting Room 102A
Title: **3D Light Field Display Technology and Applications**
3D 光场显示技术与应用
Xunbo Yu (于迅博), Beijing University of Posts and Telecommunications

Seminar 2 (Language is English)
Tuesday, March 31/15:45-17:15/ Meeting Room 102A
Title: **Breaking Down the Display & Optics Driving the Smart-glass Enabled Future**
面向未来智能眼镜的显示与光学前瞻性技术分析
Radu Reit, Display Training Center

Seminar 3 (Language is Chinese)
Tuesday, March 31/14:00-15:30/ Meeting Room 102B
Title: **The In-depth Analysis of New Automotive Display Technologies: From Principles and Parameters to Application Implementation**

车载显示新技术深度解析：从原理参数到应用落地
Xiongping Li (李雄平), Tianma Microelectronics Co., Ltd.

Seminar 4 (Language is Chinese)
Tuesday, March 31/15:45-17:15/ Meeting Room 102B
Title: **Recent Advancements of High-Mobility Thin-Film Transistors**
高迁移率 TFT 研究进展
Lei Lu (陆磊), Peking University

Seminar 5 (Language is Chinese)
Tuesday, March 31/14:00-15:30/ Meeting Room 103A
Title: **Recent Trends in AR Waveguide Design and Fabrication**
AR 波导设计与制造的最新趋势
Lei Zhao (赵蕾), Yongjiang Laboratory

Seminar 6 (Language is English)
Tuesday, March 31/15:45-17:15/ Meeting Room 103A
Title: **Optical Metasurfaces for Imaging, Sensing, and Display**
用于成像、传感和显示的光学超表面
Junsuk Rho, Pohang University of Science and Technology

Seminar 7 (Language is English)
Tuesday, March 31/14:00-15:30/ Apollo VIP Room
Title: **Fundamentals of Artificial Intelligence: Vision to Language Models**
人工智能基础：从视觉到语言模型
Achin Bhowmik, Starkey Hearing

Display Technology and Industry Standards Forum (Language is Chinese)
显示技术和产业标准论坛
Tuesday, March 31/ 9:00-12:00/ Apollo VIP Room

Micro/Mini LED Display Core Technology Road Map Forum
Micro/Mini LED 显示关键技术路线研讨会
Tuesday, March 31/14:00-18:00/ Athena Function Room

ICDT "Display Future Star Cup" Innovation Achievement Competition
ICDT "显示未来之星杯"创新成果大赛
Tuesday, March 31/ 14:00-17:00/ Meeting Room 103B

JSID Journal Publication Training Session
JSID 期刊发表培训会
Tuesday, March 31/ 15:45-17:15/ Apollo VIP Room

Display Industry Future Technology Strategy Summit (FTS) (Invited only) (Language is Chinese)
显示产业未来技术战略峰会 (显示行业领袖峰会) (闭门会议)
Wednesday, April 1/9:30-12:00/ Athena Function Room

New Technology and New Product Public Release
新技术新产品发布会
Wednesday, April 1/9:25-10:55/ Central Hall

Exhibitor Forum 1
展商论坛 1
Wednesday, April 1/11:00-11:30/ Central Hall

Exhibitor Forum 2
展商论坛 2
Thursday, April 2/9:00-12:00/ Central Hall

Roadshow of Innovation & Entrepreneurship Projects
创新创业项目路演
Thursday, April 2/13:30-15:10/ Central Hall

Business Conference
商业会议
Thursday, April 2/9:00-12:00 & 13:30-17:00/ Athena Function Room

AI for Imaging and Display Special Forum
AI 赋能成像与显示专题论坛
Thursday, April 2/9:00-11:00/ Fabulous Function Room C
Chair: Xingqun Jiang (姜幸群), BOE Technology Group Co., Ltd.

Human Factor and Visual Health Special Forum
人因与视觉健康专题论坛
Thursday, April 2/8:30-12:00/ Fabulous Function Room B
Chair: Yunhong Zhang (张运红), China National Institute of Standardization
Co-Chair: Weidong Huang (黄卫东), TCL CSOT
1. 40Hz Light Flickering: the Adenosine Hypothesis and Translational Implications (8:30-8:50)
Jiangfan Chen (陈江帆), Wenzhou Medical University
2. Quality of Experience Evaluation: Humans, Data, and Agents (8:50-9:10)
Guangtao Zhai (翟广涛), Shanghai Jiao Tong University
3. Perceptual Quality Assessment for Al Image Enhancement (9:10-9:30)
Wei Sun (孙伟), East China Normal University
4. From PC Objective Metrics to Scenario-Based User Value Discovery (9:30-9:50)
Ke Shang (尚可), Lenovo
5. The Applications of Micro OLED Based Head Mounted Displays for Surgery and Vision Health (9:50-10:10)

Huajun Peng (彭华军), Shenzhen NEDOptics Co., Ltd.

6. Beneficial Natural Light Technology (BNL) (10:10-10:30)

Ruichen Zhang (张瑞辰), Beijing BOE Display Technology Co., Ltd.

7. Reshaping the Evolutionary Visual Environment: Decoding the Light Signals of Natural Displays (10:30-10:50)

Guofu Tang (唐国富), TCL CSOT

8. Human Factors Meets Optics: SGS' s Eye Care Journey and Future Vision (10:50-11:10)

Ziwen Liu (刘子文), SGS-CSTC Standards Technical Services Co., Ltd.

Metaverse and Display Special Forum

元宇宙与显示专题论坛

Thursday, April 2/9:00-11:00/ Fabulous Function Room A

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

1. AI-Driven High-Definition Glasses-Free 3D Light Field Display with Large-Viewing-Angle (9:00-9:20)

Xinzhu Sang (桑新柱), Beijing University of Posts and Telecommunications

2. Three-Dimensional Light Field Display Based on Freeform Directional Backlight (9:20-9:40)

Rengmao Wu (吴仍茂), Zhejiang University

3. Resolution Enhancement of Light Field Near-Eye Display Using Elemental Image Optimization (9:40-10:00)

Jae-Hyeung Park, Seoul National University

4. Novel Optical Architectures of Retinal Projection Near-Eye Displays (10:00-10:20)

Enguo Chen (陈恩果), Fuzhou University.

5. Liquid-Crystal Polarization Volume Holograms Drive Breakthroughs in XR Near-Eye Displays (10:20-10:40)

Kun Gao (高堃), Goertek Alpha Labs

6. Recent Technological Advancements in Color Sequential Front-Lit LCOS for AR Displays (10:40-11:00)

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

Women in Tech (Language is Chinese)

科技中的女性论坛

Thursday, April 2/9:00-10:30/ Apollo VIP Room

Chair: Lei Zhao (赵蕾), Yongjiang Laboratory

ICDT "Display Future Star Cup" Debate Competition (Language is Chinese)

ICDT "显示未来之星杯" 辩论赛

Thursday, April 2/9:00-12:00 & 14:00-17:30/ Meeting Room 106

SID Beijing Chapter Technical Committee Meeting

SID 北京分会技术委员会会议

Thursday, April 2/19:00-21:00/ Wyndham Chongqing Yuelai

Wide Color Gamut Display Special Forum

广色域显示专题研讨会

Friday, April 3/9:00-11:00/ Felicity Function Room C

Chair: WeiDong Liu (刘卫东), Hisense Visual Technology Co., Ltd.

1. Construction and Evaluation Standard of Display Gamut for Real Object Color Reproduction (9:00-9:20)

Stanley Liu (刘喜强), TUV Rheinland (Shanghai) Co., Ltd.

2. Born for the "Real World": Industrialization Opportunities and Challenges for Multi- Primary LCD Displays (9:20-9:40)

Jianwei Cao (曹建伟), Hisense Electronic Information Group

3. Value and Challenges of Multi-Primary Color Displays (9:40-10:00)

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

4. The Value Boundary of Wide Color Gamut and Multi-Dimensional Improvement of Image Quality (10:00-10:20)

Daiqing Wang (王代青), TCL Industrial Holdings Co., Ltd.

5. Effect of Multi-primary displays on Perceptual Experience (10:20-10:40)

Minchen Wei (魏敏晨), Hong Kong Polytechnic University

Young Leader Conference

中韩青年领袖论坛

Friday, April 3/13:30-17:40/ Fabulous Function Room A

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

1. Nonlinear Light Field Manipulation via Ferroelectric Nematic Microstructures (13:30-13:50)

Lingling Ma, Nanjing University

2. Mechanistic Design of Quantum Dots for Stable and High-Performance Display Applications (13:50-14:10)

Jiwoong Yang, Daegu Gyeongbuk Institute of Science and Technology

3. From Inkjet Droplets to Pixels: Data-Efficient CCL Printing Optimization and Real-Time FPGA Image Enhancement (14:10-14:30)

Wu Yongwei, Shenzhen Technology University

4. Ultra-flexible Skin-compatible Organic Optoelectronics for Wearable Application (14:30-14:50)

Sungjun Park, Ajou University

5. Focus-tunable Microlens Array for 2D/3D Switchable Displays (14:50-15:10)

Miao Xu, Hefei University of Technology

6. High-definition & Deformable Quantum Dot Light-emitting Diodes via Transfer Printing (15:10-15:30)

Moon Kee Choi, Ulsan National Institute of Science and Technology

7. Electro-excitation Dynamics of Colloidal Quantum Dots (15:40-16:00)

Yunzhou Deng, University of Cambridge

8. High Performance Compressive Light Field 3D Displays (16:00-16:20)

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

9. Device Construction and Application Development of Multifunctional Electrophoretic Displays (16:20-16:40)

Guangyou Liu, Wuhan Textile University

10. High-performance Phosphonic-acid-based Monolayer Alignment Materials with Room-temperature Treatment (16:40-17:00)

Yu Xinyi, Hong Kong University of Science and Technology

11. Intelligent Three-dimensional Processing and Display of Light Field (17:00-17:20)

Qiang Li, Xidian University

12. Deep Learning-aided Computer-Generated Holography (17:20-17:40)

Wenbin Zhou, The University of Hong Kong

Sustainable and Low-Carbon Innovations in Display Products Forum
显示产品可持续设计与低碳发展论坛
Friday, April 3/14:00-18:00/ Felicity Function Room C
Chair: Xinyue Zhao (赵心悦), TÜV Rheinland (Shenzhen) Co., Ltd.

The Award Ceremony of SID China Display Industry Award
SID 中国区显示行业奖颁奖仪式
Friday, April 3/9:30-10:30/ Central Hall

ICDT 2026 Outstanding Poster Awards Ceremony
ICDT 2026 杰出海报颁奖典礼
Friday, April 3/9:30-10:30/ Central Hall

Technical Sessions

Session 1: OLED Display - Applications (OLEDs)
Wednesday, April 1/8:30-9:50/ Felicity Function Room A
Chair: Gaobo Yang, Hunan University

1.1 *Invited Paper:* Application of ACR Optimization Technology for Wide Viewing Angle in Large-Size OLED Displays (8:30-8:50)

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

1.2 *Invited Paper / Distinguished Paper:* Boosting the Efficiencies of OLEDs through ViP^{TM} Technology (8:50-9:10)

Minghan Cai (蔡明瀚), Visionox Technology Inc.

1.3 *Invited Paper:* View-Angle Control Using Light-control Structure in the OLED Panel for Automotive (9:10-9:30)

Youchun Chen, Chengdu BOE Optoelectronics Technology Co., Ltd.

1.4 A 1512 PPI Real RGB Glassed-OLED Display for VR (9:30-9:50)

Rongjuan Yang, Shenzhen China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

Session 2: OLED - TADF Materials & Sensitizer (OLEDs)
Wednesday, April 1/8:30-9:50/ Felicity Function Room B
Chair: Shijian Su, South China University of Technology

2.1 Exploration on R&D and Mass Production Application of pTSF Technology (8:30-8:50)

Guomeng Li (李国孟), Beijing Visionox Technology Co., Ltd.

2.2 *Invited Paper:* Exciplex Host Engineering for High Efficiency and Stable Green PSF Technology (8:50-9:10)

Jang Hyuk Kwon, Kyung Hee University

2.3 *Invited Paper:* Narrowband MR-TADF Materials and OLEDs for High-Definition Displays (9:10-9:30)

Chuluo Yang (杨楚罗), Shenzhen University

2.4 *Invited Paper:* Organic Room-Temperature Phosphorescence Sensitization in MR-TADF OLEDs (9:30-9:50)

Junqiao Ding (丁军桥), Yunnan University

Session 3: Micro-LED Epitaxy Technology (EMQ-MicroLED)
Wednesday, April 1/8:30-10:30/ Felicity Function Room C
Chair: Weijie Guo (郭伟杰), Xiamen University

3.1 *Invited Paper:* Recent Progress in InGaN-based Sub-μm Sized RGB MicroLEDs (8:30-8:50)

Lars Samuelson, Institution of Nanoscience and Applications, Southern University of Science and Technology

3.2 *Invited Paper:* MicroLED Value Chains to Enable the AI Revolution (8:50-9:10)

Burkhard Slischka, ALLOS Semiconductors

3.3 *Invited Paper:* Core Drivers of AR Application: GaN Epitaxy (9:10-9:30)

Liyang Zhang (张丽旸), Enkris Semiconductor, Inc.

3.4 *Invited Paper:* Non-covalent Epitaxy for Flexible and High-definition LED Display Applications (9:30-9:50)

Young Joon Hong, Sungkyunkwan University

3.5 Comparative Analysis of Light Extraction Directionality in Polar, Semi-polar, and Non-polar SAG MicroLEDs for AR Displays (9:50-10:10)

Ze Yuan, Yongjiang Laboratory

3.6 Photolithographic Quantum-Dot OLED for MicroDisplays (10:10-10:30)

Rongzhen Cui, Kunshan Govisionox Optoelectronics Co., Ltd.

Session 4: Near-Eye Display Optics Technology (VR/AR/MR)

Wednesday, April 1/8:30-9:50/ Fabulous Function Room A

Chair: Wen Qiao (乔文), Soochow University

4.1 Innovative Inspection Technology for Advanced Micro Display (8:30-8:50)

Baokun Jiang (江宝焜), Wuhan Jingce Electronic Group Co., Ltd.

4.2 *Invited Paper:* Light Field 3D Display with High Resolution (8:50-9:10)

Yan Xing (邢妍), Beihang University

4.3 *Invited Paper:* Achieving Ultra-Lightweight and Slim AR Smart Glasses through an OLED-Based PinTILT Optical Structure (9:10-9:30)

Jeonghun Ha, LetinAR

4.4 The Impact of Waveguide Spectral Filtering on AR Color Fidelity (9:30-9:50)

Tianxing Zhu, Instrument Systems GmbH

Session 5: Color Assessment (Applied Vision)

Wednesday, April 1/8:30-9:50/ Fabulous Function Room B

Chair: Ruiqing Ma, Taiyuan University of Technology

5.1 *Invited Paper:* Reproducing Color Appearance of Real Scenes in Head-mounted Displays (8:30-8:50)

Shining Ma (马诗宁), Beijing Institute of Technology

5.2 *Invited Paper:* Display Spectral Quality Evaluation for Visual Health: Construction and Verification of Spectral Similarity Index (8:50-9:10)

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

5.3 Skin Color Preference of Multiple Ethnic Groups (9:10-9:30)

Beijia Qin, Zhejiang University

5.4 Which Color will Produce More Observer Mismatch for Displays? (9:30-9:50)

Siyuan Song, Zhejiang University

Session 6: AI for Interactive and Novel Displays (AI for Imaging and Display)

Wednesday, April 1/8:30-10:10/ Fabulous Function Room C

Chair: Zhixin Wang, BOE Technology Group Co., Ltd.

6.1 *Invited Paper:* Learning with Graph Attention Network for Human Parsing: Enhancing Perception Foundation for Natural Human-Computer Interaction (8:30-8:50)

Chengrui Le (乐城瑞), Yongjiang Laboratory

6.2 Innovative Applications Based on Absolute Pointing Remote Control Technology (8:50-9:10)

Xingxing Jiao, BOE Technology Group Co., Ltd.

6.3 A Real-Time Eye Tracking System for Man-to-Machine Interaction on Light Field Display (9:10-9:30)

Runshen Lu, Faith Billion Technology Development Limited

6.4 Beyond MLPs: Convolutional Color Constancy with Kolmogorov-Arnold Networks (9:30-9:50)

Liangwei Chen, Zhejiang University

6.5 Vision-Language Models Internalize Human-Like Memory Colors from Real-World Objects (9:50-10:10)

Zhiyu Chen, Wuhan University

Session 7: LC Photonic Devices (Liquid-Crystal Technology)

Wednesday, April 1/8:30-10:10/ Apollo VIP Room

Chair: Satoshi Aya, South China University of Technology

7.1 *Invited Paper:* Liquid Crystal Devices Transmitted Rays' Doubling (8:30-8:50)

Victor Belyaev, Peoples' Friendship University of Russia

7.2 *Invited Paper:* Broadband Achromatic Liquid Crystal Devices (8:50-9:10)

Jiangang Lu (陆建钢), Shanghai Jiaotong University

7.3 *Invited Paper:* 3D Liquid Crystal Microstructures Based on Two-Photon Polymerization (9:10-9:30)

Wanlong Zhang (张万隆), Shenzhen University

7.4 A Highly Efficient Three-Dimensional Nonuniform Finite-Difference Model for Electrically Stimulated Liquid Crystals Photonic Devices Enabling Dynamic Photomask Lithography (9:30-9:50)

Peiyun Li, South China Normal University

7.5 Holographic Image Generation Using Photoaligned Liquid Crystals (9:50-10:10)

Pouya Nosratkhah, The Hong Kong University of Science and Technology

Session 8: HUD (Vehicle Display)

Wednesday, April 1/8:30-9:50/ Meeting Room 103

Chair: Enguo Chen (陈恩果), Fuzhou University

8.1 *Invited Paper:* Human-Oriented Virtual-Real Fusion Measurement and Optical Characterization for Automotive AR-HUD (8:30-8:50)

Xi Mou (牟希), Hangzhou SanTest Technology Co., Ltd.

8.2 A Micro-LED Based Pixel-Level Optical System: Design and Integration (8:50-9:10)

Yaodong Wu, Shanghai Tianma Microelectronics Co., Ltd.

8.3 High-resolution Automotive Light-field Head-Up Display (9:10-9:30)

HanTsung Hsueh, Zhejiang Chief Technology Co., Ltd.

8.4 Windshield-adaptive Head-up Displays Using Two-dimensional Alvarez Lenses (9:30-9:50)

Haoteng Liu, Sun Yat-sen University

Session 9: Driving Circuit (Display Electronics)

Wednesday, April 1/8:30-10:10/ Meeting Room 102

Chair: Chih-Wen Lu, Taiwan Tsing Hua University

9.1 A 10-Bit 1280×720 Micro-LED Display Driver (8:30-8:50)

Chih-Wen Lu, Taiwan Tsing Hua University

9.2 An 8-bit 2160-Channel Source Driver IC with Linearity-Improved Digital to Analog Converters for OLED Displays (8:50-9:10)

Byungwha In, DB Globalchip

9.3 Micro-LED Pixel Circuit Using Feedback Structure Based on Double-Gate IGZO TFT with Fast Falling Time (9:10-9:30)

Jinghui Jin, Sungkyunkwan University

9.4 Advanced OTD-Based Pixel Circuits with GOA Design for Low-Power AMOLED Displays (9:30-9:50)

Lei Zhou, South China University of Technology

9.5 A LTPO TFT Gate Driver with Multiple Outputs and Programmable Pulse Width for Ultra-Narrow Bezel AMOLED Displays (9:50-10:10)

Pu Liang, Peking University

Session 10: QLED Mechanism (EMQ-Quantum Dots)

Wednesday, April 1/8:30-10:10/ Meeting Room 101

Chair: Jiangyong Pan (潘江涌), Nanjing University of Information Science & Technology

10.1 *Invited Paper:* Hole Trap Formation in Quantum Dot Light-Emitting Diodes Under Electrical Stress (8:30-8:50)

Quan Niu (牛泉), South China University of Technology

10.2 *Invited Paper:* Water in Quantum-dot Light-emitting Diodes (8:50-9:10)

Yizheng Jin (金一政), Zhejiang University

10.3 Dynamics Analysis of Quantum Dot Light-Emitting Devices Based on Time-Resolved Electroluminescence Technology (9:10-9:30)

Shuai Chang, Shenzhen MSU-BIT University

10.4 Inkjet-printed Perovskite Light-emitting Diodes Exceeding 10% Efficiency with 635 dpi Modified by Lithium Fluoride (9:30-9:50)

Xingliang Dai, Zhejiang University

10.5 Performance Investigation of Quantum-dot Light-emitting Diodes with Different Structures (9:50-10:10)

Cuixia Yuan, Great Bay University

Session 11: OLED Display - Processing & Driving (OLEDs)

Wednesday, April 1/10:00-12:00/ Felicity Function Room A

Chair: Zugang Liu, China Jiliang University

11.1 *Invited Paper:* Photoconversion Coating Technology based on Quantum Dots with High PLQY and Colour Purity in OLED Microdisplays (10:00-10:20)

Denis Chausov, Prokhorov General Physics Institute of the Russian Academy of Sciences

11.2 Investigation of Al Plate for Automotive OLED Module (10:20-10:40)

Shuangjun Li, Hefei Visionox Technology Co., Ltd.

11.3 A Customized ASTC-Based Image Compression IP Core for Display Driver Integrated Circuits (10:40-11:00)

Gaobo Yang, Hunan University

11.4 Research on the Design of AMOLED TFT Image Cable Circuit and the Influence of Voltage Signal on the Decrease of Screen Brightness (11:00-11:20)

Jingjing Zhao, Yungu (Gu'an) Technology Co., Ltd.

11.5 Low Damage Sputtering Process Development of MgAg Cathode Electrode (11:20-11:40)

Junsuke Matsuzaki, ULVAC Inc.

11.6 Research on Factors Influencing Display Non-Uniformity in Partial Refresh and Optimization Strategies (11:40-12:00)

Huiming Wang, Hefei Visionox Technology Co., Ltd.

Session 12: OLED - Blue Materials (OLEDs)

Wednesday, April 1/10:00-11:20/ Felicity Function Room B

Chair: Minghan Cai (蔡明瀚), Visionox Technology Inc.

12.1 *Invited Paper:* Intrametallic Emitters for Deep Blue High Efficient OLEDs (10:00-10:20)

Carsten Rothe, beeOLED

12.2 *Invited Paper:* Molecular Engineering of Emitters for Narrow-Emitting Blue Organic Light-Emitting Diodes (10:20-10:40)

Jun Yeob Lee, Sungkyunkwan University

12.3 *Invited Paper:* Recent Advances in Blue OLED Materials toward High Efficiency and Long Life-time Devices (10:40-11:00)

Yoichi Ikeda, Idemitsu Electronic Materials (China)

12.4 *Invited Paper:* Superbly Efficient and Stable Ultrapure Blue Phosphorescent Organic Light-Emitting Diodes with Tetradentate Pt (II) Complex with Vibration Suppression Effect (11:00-11:20)

Taekyung Kim, Kyung Hee University

Session 13: Micro-LED Light Emission & Extraction (EMQ-MicroLED)

Wednesday, April 1/10:40-12:20/ Felicity Function Room C

Chair: Liyang Zhang (张丽旸), Enkris Semiconductor, Inc.

13.1 *Invited Paper:* Impacts of Sidewall on the Luminous Characteristics of Micro-LEDs (10:40-11:00)

Weijie Guo (郭伟杰), Xiamen University

13.2 Featuring on TM-polarized Sidewall Emission for AlGaN Deep-Ultraviolet Micro-LED with Enhanced Light Extraction Efficiency (11:00-11:20)

Feng Feng, The Hong Kong University of Science and Technology

13.3 3D Nanowire MicroLED Technology for High-Efficiency, High-Brightness, and Low-Cost AR Displays (11:20-11:40)

Ivan-Christophe Robin, Aledia

13.4 Red-Emitting Quantum Wells in Submicron-Sized Platelets Studied by Low-Temperature Luminescence (11:40-12:00)

Hira Usman, Institute of Nanoscience and Applications，Southern University of Science and Technology

13.5 Monolithic Resonant-Cavity AlGaInP-on-Si Red μLEDs with Highly Directional Emission (12:00-12:20)

Chuyao Yan, Shandong University

Session 14: Near-Eye Display Elements (VR/AR/MR)

Wednesday, April 1/10:00-11:40/ Fabulous Function Room A
Chair: Yan Xing (邢妍), Beihang University
14.1 *Invited Paper:* Micron Pixel Metasurface Liquid Crystal on Silicon (LCoS) for AR displays (10:00-10:20)
Arseniy Kuznetsov, Institute of Materials Research and Engineering, A*STAR (Agency for Science, Technology and Research)
14.2 *Invited Paper:* Glasses-free AR Display and its Challenges (10:20-10:40)
Wen Qiao (乔文), Soochow University
14.3 *Invited Paper:* Study of Human Visual Characteristics in Holographic Near-eye Displays (10:40-11:00)
Zi Wang (王梓), Hefei University of Technology
14.4 *Distinguished Paper:* Studies On a-IGZO TFTs Reliability with Different Light-Shielding-Layer Size for Improvement of Short Channel Device in High PPI VRAR LCD Display Technology (11:00-11:20)
Dandan Sun, BOE CHUANGYUAN Technology Co., Ltd.
14.5 Optimization of Bundled Fiber End-Face Heterostructure for AR Near-Eye Displays (11:20-11:40)
Jingxuan Zhu, Fuzhou University

Session 15: Color Modeling (Applied Vision)
Wednesday, April 1/10:00-11:20/ Fabulous Function Room B
Chair: Shining Ma (马诗宁), Beijing Institute of Technology
15.1 An Image Enhancement Method for Anomalous Trichromats based on Deep Learning (10:00-10:20)
Ruiqing Ma, Taiyuan University of Technology
15.2 ICONS: A Universal Colour Communication System for Cross Media Colour Reproduction (10:20-10:40)
Ming Luo, Zhejiang University
15.3 *Distinguished Student Paper:* How Reliable is Human Memory Color? A Case Study Based on Multiple Methods and Neural Network Prediction (10:40-11:00)
Zhiyu Chen, Wuhan University
15.4 Benchmarking the Scale Consistency and Uniformity of sUCS for High-Dynamic-Range Color Assessment (11:00-11:20)
Molin Li, Zhejiang University

Session 16: AI for Manufacturing (AI for Imaging and Display)
Wednesday, April 1/10:20-12:20/ Fabulous Function Room C
Chair: Runshen Lu, Faith Billion Technology Development Limited
16.1 *Invited Paper:* Visual Chain-of-Thought Reasoning for Display Industrial Defect Management Based on Vision-Language Models (10:20-10:40)
Haiyang Guo, BOE Technology Group Co., Ltd.
16.2 *Invited Paper:* Artificial Intelligence Architecture with Memristor Synapses for Fast Image Processing (10:40-11:00)

Aliaksandr Smirnov, Belarus Chapter, Belarusian State University of Informatics and Radioelectronics

16.3 A Semi-Supervised-Based Virtual Metrology Method for PSH Estimation (11:00-11:20)

Weixue Huang, BOE Technology Group Co., Ltd.

16.4 A Dual-Tower Transfer Learning Strategy for Precise Classification of Extremely Imbalanced LCD Aging Defect Data (11:20-11:40)

Jing Ba, TCL China Star Optoelectronics Technology Co., Ltd.

16.5 Yield Root Cause Analysis System for Display Panel Production Based on Machine Learning and Big Data Technology (11:40-12:00)

Zijian Cheng, BOE Technology Group Co., Ltd.

16.6 AI-based Layout-to-Image Dataset Generation for Lithography Defect Detection (12:00-12:20)

Yuehua Hu, Korea Institute of Industrial Technology (KITECH)

Session 17: LCD Image Quality (Liquid-Crystal Technology)

Wednesday, April 1/10:20-12:00/ Apollo VIP Room

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

17.1 *Invited Paper:* Horizontal RGB Triple-Gate Pixel Design: High Image Quality and Low-Cost Solution for LCDs (10:20-10:40)

Hongmin Li, Hefei BOE Optoelectronics Technology Co., Ltd.

17.2 *Invited Paper:* Ultra-Low-Power FFS LCDs Using Positive Dielectric Liquid Crystals via Suppressing Flexoelectric Flicker (10:40-11:00)

MinSu Kim, Jeonbuk National University

17.3 Enhancing Luminance Uniformity Across Wavelength and Grayscale for High Display Performance of MLCD (11:00-11:20)

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

17.4 Novel Low-Power Triple-Gate TFT-LCD Pixel Architecture for Improving Color Shift and Power Consumption (11:20-11:40)

Hongmin Li, Hefei BOE Optoelectronics Technology Co., Ltd.

17.5 *Distinguished Paper:* Transversely Oriented Polyvinyl Alcohol Polarizer for Ultra-Large TFT-LCDs (11:40-12:00)

Puman Huang, TCL China Star Optoelectronics Technology Co., Ltd.

Session 18: HUD & Drive System (Vehicle Display)

Wednesday, April 1/10:00-11:20/ Meeting Room 103

Chair: Xi Mou (牟希), Hangzhou SanTest Technology Co., Ltd.

18.1 Future Trends in Smart Cockpit Displays (10:00-10:20)

Ziqiang Deng (邓紫强), Chipone Technology (Beijing) Co., Ltd.

18.2 Compact Diffractive Optical Waveguide HUD Imaging Simulation (10:20-10:40)

Liang Zhou, Southeast University

18.3 *Distinguished Student Paper:* Eliminating Sunlight Backflow in AR-HUDs through a Faraday Rotator under the étendue Constraint (10:40-11:00)

Yi Liu, Sun Yat-sen University

18.4 Research on Lightweight Super-Resolution GAN Model on Low-Cost FPGA for Automotive Application (11:00-11:20)

Jiahe Zhang, Southeast University

Session 19: Driving Technology (Display Electronics)
Wednesday, April 1/10:20-12:00/ Meeting Room 102
Chair: Chih-Wen Lu, Taiwan Tsing Hua University

19.1 *Invited Paper:* Analysis and Optimization of LVDS Eye-diagram in Vehicle Products (10:20-10:40)

Dalei Zhang (张大雷), Mian Yang HKC optoelectronics Technology Co., Ltd.

19.2 A Compensation Scheme for Dark-state Luminance and Chromaticity of AMOLED Displays (10:40-11:00)

Lin Chen, Hefei Visionox Technology Co., Ltd.

19.3 A Novel Design of Passive Continuous-Time Linear Equalizer Circuit for High-Speed Serial Channel (11:00-11:20)

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

19.4 A Novel 3T1C Pixel Circuit with Two-Scan Switching for Internal Compensation on High-PPI OLED Displays (11:20-11:40)

Weijing Zeng, TCL China Star Optoelectronics Display Technology Co., Ltd.

19.5 Application Analysis of Swire Protocol in EL Power Chips (11:40-12:00)

Fangyun Liu, Hefei Visionox Technology Co., Ltd.

Session 20: QD Display Applications (EMQ-Quantum Dots)
Wednesday, April 1/10:20-12:00/ Meeting Room 101
Chair: Shuai Chang, Shenzhen MSU-BIT University

20.1 *Invited Paper:* Highly Efficient and Stable Quantum Dot Light-Emitting Diodes for Next-Generation Display Applications (10:20-10:40)

Jiangyong Pan (潘江涌), Nanjing University of Information Science & Technology

20.2 *Invited Paper:* Towards Commercialization: Overcoming Challenges in Ink-Jet Printing of QLEDs (10:40-11:00)

Longjia Wu (吴龙佳), TCL Research

20.3 *Invited Paper:* Quantum Dot Light-emitting Devices for Near-infrared Upconversion Applications (11:00-11:20)

Hailong Hu (胡海龙), Fuzhou University

20.4 *Invited Paper:* Colloidal Quantum Dot-Polymer Blend Approach toward Display and Lighting Applications (11:20-11:40)

Jeongkyun Roh, Pusan National University

20.5 *Distinguished Student Paper:* Research on Material Optimization and Pixel Structure for Micro-LED Quantum Dot Color Conversion (11:40-12:00)

Xinyi Wang, Shanghai University

Session 21: OLED Display - Architectures (OLEDs)
Thursday, April 2/8:30-10:30/ Felicity Function Room A
Chair: Guohua Xie, Xiamen University

21.1 *Invited Paper / Distinguished Paper:* 3D-OLED: Displays with Pixels in Three Dimensions (8:30-8:50)

Peter Levermore, Excyton

21.2 *Invited Paper:* From Exciton Harvesting to Photon Extraction: Solutions for High-Efficiency OLEDs (8:50-9:10)

Zhaoqun Zhou (周照群), UDC

21.3 A Device Architecture for OLED Modules with High-Temperature Color Stability (9:10-9:30)

Hongyu Wang, Hefei Visionox Technology Co., Ltd.

21.4 Transfer Printing for Full-Color and Mask-Free OLED Microdisplays (9:30-9:50)

Guohua Xie, Xiamen University

21.5 Research Progress and Prospect of High Efficiency Light-Emitting Technology for OLED Displays (9:50-10:10)

Yunqiang Yang, Hefei Visionox Technology Co., Ltd.

21.6 COE-Based OLED Display Technology with High Brightness, Wide Color Gamut, and Low Reflectivity Integrated Black (10:10-10:30)

Xiaojing Liu, Hefei Visionox Technology Co., Ltd.

Session 22: OLED - Charge Injection & Transport Materials (OLEDs)
Thursday, April 2/8:30-10:10/ Felicity Function Room B
Chair: Xuhui Zhu, South China University of Technology

22.1 *Invited Paper:* Driving OLED Innovation with Novel Metal-Organic P-Dopants (8:30-8:50)

Julia Stolz, CREDOXYS GmbH

22.2 *Invited Paper:* A Low-Sublimation-Temperature Electron Injection Layer Material for Enhanced Blue OLED Performance (8:50-9:10)

Mariusz Bosiak, Noctiluca S.A.

22.3 *Distinguished Paper:* Arylphosphine Oxide Derivative for OLEDs: Exhibiting Robust Stability Under Device Operation & Simulated Evaporation Chamber Conditions (9:10-9:30)

Xuhui Zhu, South China University of Technology

22.4 Ultra-Low Cross Talk P-Dopants with High Transparency Tailored for P-HIL Application (9:30-9:50)

Vladimir Uvarov, Novaled GmbH

22.5 Compounds for OLED at INEOS RAS (9:50-10:10)

Sergey Tokarev, A. N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences (INEOS RAS)

Session 23: Micro-LED Pixel Technology (EMQ-MicroLED)
Thursday, April 2/8:30-9:50/ Felicity Function Room C
Chair: Sitao Huo, Tianma Microelectronics Co., Ltd.

23.1 *Invited Paper:* Promoted Current Injection in GaInN/GaN Multi-Quantum Nanowires-Based LEDs (8:30-8:50)

Weifang Lu (卢卫芳), Xiamen University

23.2 *Invited Paper:* Scalable 3D Nanowire MicroLED Platform for Next-Generation Direct-View Displays and Data Communication Links (8:50-9:10)

Ivan-Christophe Robin, Aledia

23.3 *Invited Paper:* Effect of KOH Sidewall Treatment on Blue Micro-LEDs for Hybrid Micro-LED/OLED Full-Color Display (9:10-9:30)

Jie Sun (孙捷), Fuzhou University

23.4 Modeling and Optimization of Micro-LED-Fiber Coupling for Inter-Chip Optical Interconnects (9:30-9:50)

Yuxuan Song, Peking University

Session 24: Vehicle Display Engineering (Vehicle Display)

Thursday, April 2/8:30-9:30/ Meeting Room 103

Chair: Jiancheng Chen, Tianma Microelectronics Co., Ltd.

24.1 *Invited Paper:* Advances in Automotive Displays beyond Mainstream Flat Designs (8:30-8:50)

Kai Hohmann, Aumovio Germany GmbH

24.2 *Invited Paper:* Optimizing Color Reproduction for Automotive Displays Using Quantum Dot Technology (8:50-9:10)

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

24.3 Research on Crosstalk Improvement of Triple gate High-temperature and High-brightness In-Vehicle Dispaly (9:10-9:30)

Minghang Zhu, InfoVision Optoelectronics (Kunshan) Co., Ltd.

Session 25: Display Structure (Display Electronics)

Thursday, April 2/8:30-10:10/ Meeting Room 102

Chair: Ze Yuan, Yongjiang Lab

25.1 *Invited Paper:* 3D Cellular Automata Modeling of Excimer Laser Annealed Amorphous Silicon Surfaces (8:30-8:50)

Chenzhe Li (李辰喆), Hefei Govisionox Technology Co., Ltd.

25.2 A Novel Digital Driving Architecture for Power Minimization in AMOLEDs (8:50-9:10)

Xiangyu Dai, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

25.3 A Novel Design of Optimization for Power Distribution Network Based on Machine Learning (9:10-9:30)

Dongmei Chen, TCL China Star Optoelectronics Technology Co., Ltd, Shenzhen, China

25.4 Luminance and Chromaticity Uniformity Compensation Scheme for Low Brightness Scenarios (9:30-9:50)

Shuaizhao Wang, Hefei Visionox Technology Co., Ltd.

25.5 A Low Refresh Rate Display Flicker Improvement Scheme (9:50-10:10)

Chengyuan Li, Hefei Govisionox Optoelectronics Co., Ltd.

Session 26: Perovskite Quantum Dots (EMQ-Quantum Dots)

Thursday, April 2/8:30-10:10/ Meeting Room 101

Chair: Xingliang Dai, Zhejiang University

26.1 *Invited Paper:* Nanopatterning of Perovskite and Organic LEDs via Molecular-Beam Holographic Lithography (8:30-8:50)

Sudhir Kumar, ETH Zurich

26.2 *Invited Paper:* 10 Years After Discovery: Perovskite Quantum Dots Commercialized in Displays (8:50-9:10)

Samuel Halim, Avantama AG

26.3 Perovskite Quantum Dots Photoresist for Direct Photolithography (9:10-9:30)

Gaoling Yang, Beijing Institute of Technology

26.4 Monolithic Integration of Full-Color Micro-LED with Quantum Dot Color-Conversion Pixels (9:30-9:50)

Ziwei Li, Hunan University

26.5 Multifunctional Crystal Regulation via Guanidinium Thiocyanate-Assistance Enables Efficient Blue Light-Emitting Diodes (9:50-10:10)

Na Jiang, Beijing Jiaotong University

Session 27: OLED Module Technology 1 (OLEDs)

Thursday, April 2/10:40-12:00/ Felicity Function Room A

Chair: Xiaojing Liu, Hefei Visionox Technology Co., Ltd.

27.1 Sparkle Optimization in Display Modules with Anti Glare Cover Glass (10:40-11:00)

Endong Chang, Hefei GoVisionox Technology Co., Ltd.

27.2 Reducing the Color Shift of Large Angle by Adopting the TP Bias Technology (11:00-11:20)

Meng Jin, Hefei Visionox Technology Co., Ltd.

27.3 Development of Lamination Process for High-Spec Quad-Curved Modules (11:20-11:40)

Ziqian Chen, Wuhan Tianma Microelectronics Co., Ltd.

27.4 Study on Improving OLED Screen Backside Impact Resistance (11:40-12:00)

Zhishuai Jia, Yungu (Gu'an) Technology Co., Ltd. (Visionox's Affiliated Company)

Session 28: OLED - Other Functional Materials (OLEDs)

Thursday, April 2/10:20-12:20/ Felicity Function Room B

Chair: Junqiao Ding (丁军桥), Yunnan University

28.1 *Invited Paper:* Green Host for High Performance OLEDs (10:20-10:40)

Xinyang Wang (王忻扬), Merck Display Materials (Shanghai) Co., Ltd.

28.2 *Invited Paper:* Heteroatom-Doped Polycyclic Aromatic Hydrocarbons and Their Applications in Organic Light-Emitting Diodes (10:40-11:00)

Wan Pyo Hong, Gachon University

28.3 *Invited Paper:* Ultra-pure Green Top-Emitting OLEDs with LT90 Lifetime over 540000 h at 1000 cd/m2 (11:00-11:20)

Guijie Li (李贵杰), Zhejiang University of Technology

28.4 The Enhancement of Color Purity of OLED with Excitonic Polariton Material (11:20-11:40)

Dong Wan Kang, LinkGlobal21

28.5 Low Leakage Current Material for Tandem OLEDs (11:40-12:00)

Zhibin Wang, OTI Lumionics

28.6 Lifetime Improvement by Organic-Doped QD Film in QLED Devices (12:00-12:20)

Xiangan Song, Suzhou Govisionox Innovation Technology Co., Ltd.

Session 29: Mini & Micro-LED System & Applications (EMQ-MicroLED)

Thursday, April 2/10:00-11:20/ Felicity Function Room C

Chair: Jie Sun (孙捷), Fuzhou University

29.1 *Invited Paper:* Luminance Boosted MicroLED Head-Up Display By“Smart Micro-Lens” Design (10:00-10:20)

Guowei Zha (查国伟), TCL China Star Opto-Electric Technology Limited.

29.2 *Invited Paper:* Splicing Technology for Large-size Transparent Micro-LED Display (10:20-10:40)

Qiang Peng (彭强), Chengdu Vistar Optoelectronics Co., Ltd.

29.3 Chip Scale Packaging of Mini-LEDs for Viewing Angle Compression (10:40-11:00)

Weigao Sun, TCL China Star Optoelectronics Technology Co., Ltd.

29.4 Hybrid μ LED-OLED Red Sub-Pixel with ALCC Using Global Regularized Inversion for Stable D65 White Reproduction (11:00-11:20)

Junghoon Kim, LX semicon

Session 30: TFT Backplane Manufacturing (Display Manufacturing)

Thursday, April 2/9:40-11:20/ Meeting Room 103

Chair: Chengyuan Dong, Shanghai Jiao Tong University

30.1 *Invited Paper:* High-Performance Indium-Tin-Zinc-Oxide TFTs Fabricated by a Novel ALD Supercycle Process (9:40-10:00)

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

30.2 *Invited Paper:* Flexible Optoelectronic Synapse Transistor Based on the Persistent Photoconductivity Effect of Pr-InZnO (10:00-10:20)

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

30.3 Redefining Ultra-Narrow Bottom Bezels through Halftone Mask Process Breakthrough Beyond Fanout Pitch Limits (10:20-10:40)

Yuqi Li, China Star Optoelectronics Semiconductor Display Technology Co., Ltd. Guangzhou, China

30.4 Finetuning Molybdenum-Oxide Targets to Optimize the Behavior of Sputtered Thin Films in TFTs (10:40-11:00)

Zecui Gao, Plansee (Shanghai) High Performance Materials Co.

30.5 Study on the Influence of Different Metal Electrodes on the Mobility of InGaO-Based TFTs and the Breakdown Voltage of Multilayer Insulating Structures (11:00-11:20)

Shan Hu, Sun Yat-Sen University

Session 31: Display Algorithm (Display Electronics)

Thursday, April 2/10:20-12:00/ Meeting Room 102

Chair: Chenzhe Li (李辰喆), Hefei Govisionox Technology Co., Ltd.

31.1 *Invited Paper:* Sampled Analog Video Transport - Enhanced Color Reproduction (10:20-10:40)

Alex Henzen, Hyphy USA Inc.

31.2 A Pixel-Wise Color Uniformity Compensation Method for High Refresh Rate LCD Dual-Gate Notebook (10:40-11:00)

Yanhong Wu, BOE Technology Group Co., Ltd.

31.3 Pixel-Level High-Precision IR-Drop Compensation for Multi-Scenario AMOLEDs via Image-Based Luminance Modeling (11:00-11:20)

Mingxuan Chen, BOE Technology Group Co., Ltd.

31.4 A FPGA-Based Real-Time Dynamic Range Adjustment Algorithm for 4K@60Hz Video (11:20-11:40)

Jian Zhang, Southeast University

31.5 *Distinguished Student Paper:* Lanczos-Based Perception-Enhanced Super-Resolution (LPSR) for Real-Time Mobile Image Enhancement (11:40-12:00)

Chenhao Hu, Southeast University

Session 32: High Resolution Patterning (EMQ-Quantum Dots)

Thursday, April 2/10:20-11:40/ Meeting Room 101

Chair: Gaoling Yang, Beijing Institute of Technology

32.1 *Invited Paper:* Direct Photolithography Techniques for Full-Color Quantum Dots Display (10:20-10:40)

Shaoyong Lu, BOE Technology Group Co., Ltd.

32.2 High-Resolution Quantum Dot Patterning Technologies and Their Applications in Efficient Light-Emitting Diodes and Displays (10:40-11:00)

Chengzhao Luo, Soochow University

32.3 Photo-Click Chemistry Enables High-Resolution and High-Fidelity Photolithography of Quantum Dots (11:00-11:20)

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

32.4 Research on High Resolution Display Applications of Quantum Dot Light Emitting Devices (11:20-11:40)

Kaiyu Yang, Fuzhou University

Session 33: OLED Module Technology 2 (OLEDs)

Thursday, April 2/13:30-15:10/ Felicity Function Room A

Chair: Feilong Liu, South China Normal University

33.1 Delicate Research on the Influence of Shape Morphologies of Adhesive at Bending Area Dedicated to the Development of OLED Narrow Bezel (13:30-13:50)

Cheng Shi, Wuhan Tianma Microelectronics Co., Ltd.

33.2 Impact of the Polarizer on Corrosion in AMOLED Displays (13:50-14:10)

Hang Zhang, Hefei Visionox Technology Co., Ltd.

33.3 Universal Analyses of Fogging Phenomenon in Glass Ceramics under High Temperature and High Humidity (14:10-14:30)

Guofeng Zhang, Wuhan Tianma Microelectronics Co., Ltd.

33.4 Thin-Film Technology Solutions for Overcoming Bending Challenges in Flexible OLED Modules (14:30-14:50)

Fanzhong Bu, Visionox Technology Inc.

33.5 Modulation of BP Acrylic PSA Modulus for Enhanced Drop Impact Strength of Flexible OLED Panels (14:50-15:10)

Lijia Pan, Xiamen Tianma Display Technology Co., Ltd.

Session 34: High Performance Oxide TFT (Active-Matrix Device)

Thursday, April 2/13:30-14:30/ Felicity Function Room B
Chair: Zhinong Yu, Beijing Institute of Technology
34.1 *Invited Paper:* Advanced Control of In-Rich IGO Channels: Compositional Optimization and Nitrogen-Mediated Structural Stabilization via PEALD (13:30-13:50)
Jin-Seong Park, Hanyang University
34.2 *Invited Paper:* Applications for ALD Dielectrics in Full Metal-Oxide Backplane Technology (13:50-14:10)
Dejiu Fan (范德久), Applied Materials Inc.
34.3 Development of 12.7inch 2.8K AMOLED Panel Using Fully High Mobility Oxide TFTs Which Can Realize 240Hz Refresh Rate (14:10-14:30)
Yana Gao, Tianma Microelectronics Co., Ltd.

Session 35: Micro-LED Color Technology (EMQ-MicroLED)
Thursday, April 2/13:30-15:10/ Felicity Function Room C
Chair: Haizheng Zhong (钟海政), Beijing Institute of Technology
35.1 *Invited Paper / Distinguished Paper:* GaN-On-Si Single-Chip Full-Color Micro-LED Display (13:30-13:50)
Qian Sun (孙钱), Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS)
35.2 Technology Trends in Full-Color Micro-LED Displays for AR the NPQD Monolithic Solution (13:50-14:10)
Jie Song, Saphlux LLC
35.3 Research on Temperature Color Shift for Micro-LED Based on Machine Learning (14:10-14:30)
Yanjun Zhang, Shanghai Tianma Microelectronics Co., Ltd.
35.4 Fabrication of Color-Conversion Nanostructures Compatible with Mini-LED and Micro-LED Displays Using Nanoimprint Lithography (14:30-14:50)
Yalin Lu, Beijing Jiaotong University
35.5 Photon Recycling Effect in Color-Conversion Micro-LED Displays (14:50-15:10)
Qing Zhao, Shenzhen University

Session 36: Metaverse & 3D Content Generation (VR/AR/MR)
Thursday, April 2/13:30-15:10/ Fabulous Function Room A
Chair: Tianxing Zhu, Konica Minolta (China) Investment Co., Ltd.
36.1 *Invited Paper:* Virtual and Augmented Reality for Stem Education and Teachers Training (13:30-13:50)
Andrey A. Belyaev, State University of Education
36.2 *Invited Paper:* Distal-Aware Frequency-Gated Spatiotemporal Hypergraphs for Edge Micro-Gesture Recognition and 3D Hand Reconstruction (13:50-14:10)
TK PEN (潘仲光), ChiMeta Limited
36.3 *Invited Paper:* Advancing from 3D Displays to Computer-Generated Holography at NTUST (14:10-14:30)
Chien-Yu Chen (陈建宇), Taiwan University of Science and Technology
36.4 Research on Inverted Tandem Green OLED for AR (14:30-14:50)

Qiang Liu, Yungu (Gu'an) Technology Co., Ltd.

36.5 Crosstalk-Free Content Generation Method for Light Field 3D Displays (14:50-15:10)

Yijian Liu, Beihang University

Session 37: Visual Health (Applied Vision)

Thursday, April 2/13:30-14:50/ Fabulous Function Room B

Chair: Yunyang Shi (史韫杨), Nanjing Technology University

37.1 *Invited Paper / Distinguished Paper:* Adaptive Dominant Eye-Based Binocular Vision for VR Display (13:30-13:50)

Chaoping Chen (陈超平), Shanghai Jiao Tong University

37.2 From Parameters to Experience: An Exploratory Empirical Study on User Ex-perience Evaluation of Mobile Eye Protection Modes (13:50-14:10)

Yang Yi, China NatiStudies On a-IGZO TFTs Reliability wonal Institute of Standardization

37.3 Influence of Display Spectral Similarity to Natural Light on Visual Search Performance (14:10-14:30)

Yunhong Zhang, China National Institute of Standardization

37.4 Light Field Displays Correcting Early-Stage Cataract by Engineering Vectorial Beams (14:30-14:50)

Jie Tang, Sun Yat-sen University

Session 38: AI for Display R&D 1 (AI for Imaging and Display)

Thursday, April 2/13:30-14:50/ Fabulous Function Room C

Chair: Honglei Ji, TCL Electronic R&D Center

38.1 *Invited Paper:* Intelligent Screening and Design of OLED Luminescent Materials (13:30-13:50)

Dandan Song (宋丹丹), Beijing Jiaotong University

38.2 Multi-Modal Pre-Training Framework for Molecular Property Prediction (13:50-14:10)

Min Zeng, BOE Technology Group Co., Ltd.

38.3 Enhancing Chemical Capabilities of Large Language Models for OLED Materials Design (14:10-14:30)

Tsun-Hin Cheung, TCL AI Lab

38.4 Physics-Informed Bayesian Neural Network for Performance Prediction of Rare-Earth (14:30-14:50)

Zengyi Peng, South China University of Technology

Session 39: LCD New Materials & Application (Liquid-Crystal Technology)

Thursday, April 2/13:30-15:30/ Apollo VIP Room

Chair: Roy HC Lin, MianYang HKC Optoelectronics Technology Co., Ltd

39.1 *Invited Paper:* Ferroelectric Liquid Crystals Material Engineering and Application (13:30-13:50)

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

39.2 *Invited Paper:* The Fundamental Role of Anisotropy, Self-Organizing Systems in the Development of New Displays and Devices (13:50-14:10)

Vladimir Bezborodov, Belarusian State Technological University

39.3 *Invited Paper:* Typical and Untypical Electric Responses in the Emerging Ferroelectric Nematic Liquid Crystals (14:10-14:30)

Satoshi Aya, South China University of Technology

39.4 Liquid Crystal Photoalignment on Azodye Nanolayers for New Liquid Crystal Devices (14:30-14:50)

Vladimir Chigrinov, The Hong Kong University of Science and Technology

39.5 Novel Liquid Crystal Materials for Achieving the Shortest UV2 Process of Polymer-Stabilized Vertically Aligned Liquid Crystal Displays (14:50-15:10)

Yali Liu, TCL China Star Optoelectronics Technology Co., Ltd.

39.6 Research on Dye-Doped Liquid Crystal Dimming Technology for Electronic Neutral Density Filter (15:10-15:30)

Xiaoqian Ju, Beijing BOE SINCE Technology Co., Ltd.

Session 40: Display Materials and Components 1 (Display Manufacturing)

Thursday, April 2/13:30-14:50/ Meeting Room 103

Chair: Xinquan Chen (陈心全), Hefei Visionox Technology Co., Ltd.

40.1 Research and Enhancement of Anti-Static Performance of Glass Cover Plates (13:30-13:50)

Shuai Chen, Yungu (Gu'an) Technology Co., Ltd.

40.2 Nanoscale Degradation Study of the Optically Clear Adhesive (OCA) (13:50-14:10)

Jiajun Lin, Exponent Science and Technology Consulting Co., Ltd.

40.3 Precision Control of Organic Optical Film Taper Angle for Flexible Display Integration (14:10-14:30)

Dongliang Yu, Hefei Govisionox Technology Co., Ltd.

40.4 Stamping Application and Structural Optimization of Post-Consumer Recycled (PCR) Material Backcovers (14:30-14:50)

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

Session 41: Display Integration (Display Electronics)

Thursday, April 2/13:30-14:50/ Meeting Room 102

Chair: Ze Yuan, Yongjiang Lab

41.1 *Invited Paper:* From GMSL to OpenGMSL: Enabling Next-Generation Automotive Display Systems through Standards and Innovation (13:30-13:50)

Geir Ostrem, Analog Devices

41.2 *Invited Paper:* Flexible and Stretchable Synaptic Transistors for Mimicking Cognition and Neuromorphic Computing (13:50-14:10)

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

41.3 A Compensation Solution for Display In-Panel Uniformity of EL Power System (14:10-14:30)

Jinxin Wei, TCL China Star Optoelectronics Technology Corporation

41.4 An Efficiency Optimization Solution for ELIC (14:30-14:50)

Zhisong Sun, Kunshan Govisionox Optoelectronics Co., Ltd.

Session 42: Quantum Dots Materials (EMQ-Quantum Dots)

Thursday, April 2/13:30-15:50/ Meeting Room 101

Chair: Shaoyong Lu, BOE Technology Group Co., Ltd.

42.1 *Invited Paper:* Commercial Readiness of High-Performance, Cadmium-Free Quantum Dot Inks for MicroLED and QD-OLED Color Conversion Applications (13:30-13:50)

Kim De Nolf, QustomDot BV

42.2 *Invited Paper:* Unraveling Defects in NiO-Based Hole Transport Materials for Efficient Quantum Dot Electroluminescent Devices (13:50-14:10)

Jaehoon Lim, Sungkyunkwan University

42.3 Stable and Highly Efficient InGaP Quantum Dots for Display Device Applications (14:10-14:30)

June-hyuk Jung, Samsung Display Company

42.4 Colloidal Quantum Well Light-Emitting Diodes (14:30-14:50)

Baiquan Liu, Sun Yat-sen University

42.5 Analyzing the Bandwidth of QLEDs through Impedance Spectroscopy (14:50-15:10)

Siqi Jia, Institute of Advanced Displays and Imaging, Henan Academy of Science

42.6 Electric Field Dependent Carrier Mobility of Quantum Dots Film (15:10-15:30)

Shipei Sun, Beijing Institute of Technology

42.7 Efficient and Stable Top-Emitting Quantum Dot Light-Emitting Diode Enabled by Self-Assembled Monolayer Interface Engineering (15:30-15:50)

Yiduo Wang, Guangxi University

Session 43: OLED - Simulations 1 (OLEDs)

Thursday, April 2/15:20-17:00/ Felicity Function Room A

Chair: Guofeng Zhang, Wuhan Tianma Microelectronics Co., Ltd.

43.1 Accelerating OLED Design: Integrating Machine Learning and Physics-Based Simulation (15:20-15:40)

Hadi Abroshan, Schrodinger Inc.

43.2 Exploring the Flow and Leveling Behavior of Inkjet Printing in Narrow Emission Areas for High-Resolution OLEDs (15:40-16:00)

Mudan Chen, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

43.3 A Power-Saving Algorithm for Adaptive Color Adjustment on OLED Display and Its Hardware Implement (16:00-16:20)

Ruixin Yan, ESWIN Computing Technology

43.4 *Distinguished Student Paper:* A Physics-Based Compact Modeling Framework for OLEDs: Capacitance Analysis, Prediction, and Application (16:20-16:40)

Yujia Gong, Peking University

43.5 DFT-Enhanced Machine Learning for Accurate PLQY Prediction and Inverse Design of Novel MR-TADF Materials (16:40-17:00)

Haochen Shi, Beijing Jiaotong University

Session 44: Structure Engineering for TFTs (Active-Matrix Device)

Thursday, April 2/14:40-16:00/ Felicity Function Room B

Chair: Xifeng Li, Shanghai University

44.1 A Novel Dual-Patterning Process for High-PPI OLED Displays Utilizing Organic Layer Structuring with Optimized Taper Angles and Dry Etching (14:40-15:00)

Chuanzhi Xu, Hefei Visionox Technology Co., Ltd.

44.2 The Impact of Polysilicon Taper Angle on the Electric Characteristics of Low-Temperature Polysilicon Thin-Film Transistors and Image Sticking Performance of AMOLED (15:00-15:20)

Mengmeng Hu, Visionox Technology Inc.

44.3 Analysis of LTPO Inverter with Single/Double-Gate Oxide TFT Structure (15:20-15:40)

Dayun Li, Sungkyunkwan University

44.4 Enhancement of Persistent Photoconductive Effect in IGZO TFTs Passivated by MoOx: Ta Films (15:40-16:00)

Yongliang Chen, Shanghai Jiao Tong University

Session 45: Micro-LED Displays (EMQ-MicroLED)

Thursday, April 2/15:20-16:40/ Felicity Function Room C

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

45.1 *Invited Paper:* Micro-QLED for AR Display: Challenges and Chances (15:20-15:40)

Haizheng Zhong (钟海政), Beijing Institute of Technology

45.2 *Invited Paper:* The Potential and Challenges of Transparent Micro LED Displays (15:40-16:00)

Chiahao Tsai (蔡嘉豪), Innolux Corporation

45.3 Enhancing the Contrast Ratio of Monolithically Integrated Micro-LED Display Device (16:00-16:20)

Xiaodan Wei, Beijing Yishixin Technology Development Co., Ltd.

45.4 Micro-LED Pixel Circuit with Progressive Step Generated Unit Using Double-Gate Structure (16:20-16:40)

Dayun Li, Sungkyunkwan University

Session 46: Display Methodology (VR/AR/MR)

Thursday, April 2/15:20-17:40/ Fabulous Function Room A

Chair: Huan Deng, Sichuan University

46.1 *Invited Paper:* Benefits of Multi-Apertures in a Light-Field Display (15:20-15:40)

Zong Qin (秦宗), Sun Yat-Sen University

46.2 *Invited Paper:* Displays in STEM Education (15:40-16:00)

Iakovlev Vladislav, State University of Education

46.3 *Distinguished Paper:* Prospective Wearable Display Glasses Built-In with Terahertz Wireless Communications (16:00-16:20)

Darwin Hu, Phasereality Laboratory, Sysview Technology, Inc.

46.4 Systematic Simulation and Optimization of Waveguide Display with An Efficient Ray Tracing Platform (16:20-16:40)

Jianghao Xiong, Beijing Institute of Technology

46.5 Colorimetric Characterization and Ambient Light Interference in Optical See-Through Near-Eye Displays (16:40-17:00)

Tianxing Zhu, Instrument Systems GmbH

46.6 *Distinguished Student Paper:* Synthetic-Aperture Wavefront Coding Enabling a Full Depth-of-Field for Light-Field Displays (17:00-17:20)

Mingjing Wang, Sun Yat-sen University

46.7 Decoupled Neural Holography for Augmented Reality Waveguide Display Under Partially Coherent Illumination (17:20-17:40)

Weixian Chen, Shanghai Jiaotong University

Session 47: Visual Fatigue (Applied Vision)

Thursday, April 2/15:00-16:20/ Fabulous Function Room B

Chair: Lili Wang, Southeast University

47.1 *Invited Paper:* The Effect of Different PWM Settings on Visual Fatigue under Different Luminance Levels on Mobile Displays (15:00-15:20)

Fang Hou (侯方) , Eye Hospital of Wenzhou Medical University

47.2 *Invited Paper:* From Pixels to Photoreceptors: Bio-Informed Deep Learning for Visual Discomfort Assessment (15:20-15:40)

Yunyang Shi (史韫杨), Nanjing Technology University

47.3 Neural Dynamics of Motion Sickness in In-Vehicle Movie Watching Scenarios (15:40-16:00)

Si Feng, China National Institute of Standardization

47.4 Parameter Optimization for Visual Comfort and Reading Efficiency A Systematic Investigation Using Subjective and Objective Measures (16:00-16:20)

Zhenzhen Li, Zhejiang University

Session 48: AI for Display R&D 2 (AI for Imaging and Display)

Thursday, April 2/15:00-16:40/ Fabulous Function Room C

Chair: Wei Xu, TCL AI Lab

48.1 *Invited Paper:* AI-Driven Innovations in R&D and Production of Display Industry: A Comprehensive Review of Material Design, Device Fabrication, Defect Detection, and Compensation Technologies (15:00-15:20)

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

48.2 Color Temperature Uniformity Correction for LCD Screens Based on AI and FPGA (15:20-15:40)

Zheyuan Song, BOE Technology Group Co., Ltd.

48.3 Low-Light Noise Suppression for Mini-LED Local-Dimming Displays Using a CNN-Attention Hybrid Network (15:40-16:00)

Tiankuo Shi, Nanjing ICD Microelectronic Technology Co., Ltd.

48.4 An Automated Compensation Method for Fine Stripes of LCD Modules Based on Computer Vision (16:00-16:20)

Yingjie Li, BOE Technology Group Co., Ltd.

48.5 *Distinguished Student Paper:* AI-Algorithm-Driven Automated Layout Generation Method for Flat Panel Display with High Aperture-Ratio and Charging-Ratio (16:20-16:40)

Haodong Tang, Peking University

Session 49: LCD Process Development (Liquid-Crystal Technology)

Thursday, April 2/15:40-16:20/ Apollo VIP Room

Chair: Yedong Wang, Hisense Visual Technology Co., Ltd.

49.1 Research on Taper Process Improvement of Negative-Tone Color Photoresist with High Pigment Concentration System (15:40-16:00)

Ji Li, TCL China Star Optoelectronics Technology Co., Ltd.

49.2 Enhancement of ESD Performance in Low-Reflectance Displays Based on BITO-Skip Architecture (16:00-16:20)

Boyu Ren, Wuhan BOE Optoelectronics Technology Co., Ltd.

Session 50: Display Materials and Components 2 (Display Manufacturing)

Thursday, April 2/15:00-16:20/ Meeting Room 103

Chair: Jiajun Lin, Exponent Science and Technology Consulting Co., Ltd.

50.1 *Invited Paper:* A Study on Low-Brightness Uniformity in AMOLED Displays under Global DC Dimming-Challenges, Modeling, Mitigation (15:00-15:20)

Xinquan Chen (陈心全), Hefei Visionox Technology Co., Ltd.

50.2 *Invited Paper:* Eye Care Films for Displays: Converting Linear Polarization to Circular or Natural Light (15:20-15:40)

Xingzhou Tu (涂醒洲), Rayboch

50.3 Introduction to the Value of 20um Fine Metal Mask (15:40-16:00)

Xiaoding Xia, Zhejiang Zhongling Technology Co., Ltd.

50.4 Study on Factors Affecting the Reflectance of Hard-Coating Low-Reflective Films (16:00-16:20)

Ping Liang, TCL China Star Optoelectronics Technology Co., Ltd.

Session 51: Driving Technology for OLED (Display Electronics)

Thursday, April 2/15:00-16:20/ Meeting Room 102

Chair: Zhiyong Xiong, Shanghai Tianma Microelectronics Company Limited

51.1 DSC Decoding Optimization for AMOLED Application (15:00-15:20)

Hsueh-Yen Yang, Galaxy Core Microelectronics

51.2 Research on an Optimization Method for Low-Frequency Flicker in AMOLED Displays Based on an Adaptive Timing Algorithm (15:20-15:40)

Yong Pei, Kunshan Govisionox Optoelectronics Co., Ltd.

51.3 Research on Optimization Methods for Brightness Transition in AMOLED Screen Mode Switching (15:40-16:00)

Yongbin Yang, Kunshan Govisionox Optoelectronics Co., Ltd. (Visionox's Affiliated Company)

51.4 Research on Optimization of Low-Brightness Screen Flicker (SVM) in AMOLED Modules (16:00-16:20)

Weiwei Pan, Hefei Visionox Technology Co., Ltd.

Session 52: Performance Enhancement (Display Application)

Thursday, April 2/16:00-17:20/ Meeting Room 101

Chair: Siyan Ma, BOE Technology Group Co., Ltd.

52.1 Methods to Improve the Contrast Ratio as Defined by Display Specification for Automotive Application (16:00-16:20)

Jimin Tang, Infovision Optoelectronics (Kunshan) Co., Ltd.

52.2 Brand-New AIE Material for Eye-Friendly Screens with Natural Light-Like Spectrum (16:20-16:40)

Yi Feng, TCL China Star Optoelectronics Technology Co., Ltd.

52.3 Study the Factors Affecting the Antistatic Performance of AMOLED Display (16:40-17:00)

Yun Chen, Yungu (Gu'an) Technology Co., Ltd. (Visionox' s Affiliated Company)

52.4 A Four-Ways Viewing Angle Controllable Liquid Crystal Display Technology with Dual Cell Design (17:00-17:20)

Tao Liu, Infovision Optoelectronics (Kunshan) Co., Ltd.

Session 53: OLED - Simulations 2 (OLEDs)

Thursday, April 2/17:10-18:50/ Felicity Function Room A

Chair: Guomeng Li (李国孟), Beijing Visionox Technology Co., Ltd.

53.1 Assisting OLED Material Development Based on Molecular Generation and Machine Learning Prediction (17:10-17:30)

Lu Wang, Beijing Eternal Material Technology Co., Ltd.

53.2 Improvement of FOV in OLED Device Design via Optical Simulation (17:30-17:50)

Min Zou, Hefei Visionox Technology Co., Ltd.

53.3 The Improvement of the Angular Characteristics of OLED with Micro Lens Array (17:50-18:10)

Dong Wan Kang, LinkGlobal21

53.4 Understanding Physical Mechanism of Realistic OLED Stacks by 3D Kinetic Monte Carlo Simulations (18:10-18:30)

Feilong Liu, South China Normal University

53.5 Mitigation and Optimization of AMOLED HBM High-Brightness Thermal Burn-In with Mechanistic Insight Elucidation via Global IR Drop Simulation (18:30-18:50)

Hao Dong, Hefei Visionox Technology Co., Ltd.

Session 54: Printed TFT and Sensors (Active-Matrix Device)

Thursday, April 2/16:10-18:10/ Felicity Function Room B

Chair: Qijun Yao, Shanghai Tianma Microelectronics Co., Ltd.

54.1 *Invited Paper:* Integrated Flexible Printed Carbon Nanotube Thin-Film Transistors as an Active-Matrix Backplane for E-Paper Displays (16:10-16:30)

Jianwen Zhao (赵建文), Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences

54.2 *Invited Paper:* Oxide Thin-Film Transistors as Switching, Driving and Sensing Elements in Active-matrix Backplanes (16:30-16:50)

Pedro Barquinha, NOVA FCT

54.3 *Invited Paper:* Solution Processing of High-Performance Inorganic and Hybrid Materials for Large Area Electronics (16:50-17:10)

Myung-Gil Kim, Sungkyunkwan University

54.4 Vertically-Stacked 2T1C Printed Active-Matrix Backplane for High-Aperture Active-Matrix OLED Displays (17:10-17:30)

Sungjune Jung, Pohang University of Science and Technology

54.5 *Distinguished Student Paper:* Large-Area Complementary Organic-Inorganic Hybrid TFT Technology for Integrated On-Panel Computing in Immersive Display Systems (17:30-17:50)

Zhengyang Hu, Shanghai Jiaotong University

54.6 Miniaturized and Environmentally Friendly InP Quantum Dots /a-IGZO Phototransistors with High Detectivity and Tunable Photoresponse Performance (17:50-18:10)

Jiaxin Yang, Peking University

Session 55: Mass Transfer, Bonding & Repair (EMQ-MicroLED)

Thursday, April 2/16:50-18:50/ Felicity Function Room C

Chair: Jie Song, Saphlux LLC

55.1 *Invited Paper:* A Holistic Approach to Deterministic Massive Transfer (16:50-17:10)

Makarem Hussein, LuxNour Technologies

55.2 *Invited Paper:* Inspection and Repair Technology for High-yield Micro-led Display (17:10-17:30)

Gang Feng (冯刚), Chengdu Vistar Optoelectronics Co., Ltd.

55.3 *Invited Paper:* Different MicroLED Transfer Technologies: Potential and Challenges (17:30-17:50)

Reza Chaji, VueReal

55.4 *Invited Paper:* Micro Transfer Printing Technologies toward the Assembly and Repair of Micro LED Modules (17:50-18:10)

Changhong Cao (曹长宏), McGill University

55.5 High-Yield Fabrication of Micro-LED Displays Based Advanced Laser Bonding and Mass Transfer (18:10-18:30)

Wenya Tian, BOE TECHNOLOGY GROUP CO., LTD.

55.6 High-Resolution Patterning of Fluorescent Films by Femtosecond Laser-Induced Forward Transfer (18:30-18:50)

Yuefeng Liu, Jilin University

Session 56: Micro-Display Technology (VR/AR/MR)

Thursday, April 2/17:50-18:50/ Fabulous Function Room A

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

56.1 *Invited Paper:* Microdisplay on Silicon Technology and Its Application of Light Field Holography (17:50-18:10)

Jun Xia (夏军), Southeast University

56.2 AI-Driven Enhancement of MAI for LCD-Based XR Displays (18:10-18:30)

Jing Ba, TCL China Star Optoelectronics Technology Co., Ltd.

56.3 High-Performance Micro-Cavity White-OLED Technology for 1,500ppi Real RGB Glass-Based VR Display (18:30-18:50)

Wenfeng Song, Beijing Visionox Technology Co., Ltd.

Session 57: Brightness Perception (Applied Vision)

Thursday, April 2/16:30-17:50/ Fabulous Function Room B

Chair: Fang Hou (侯方) , Eye Hospital of Wenzhou Medical University

57.1 Ambient Light Adaptive Gamma: Ambient Light Management Solution Beyond AR/AG (16:30-16:50)

Yaodong Wu, Shanghai Tianma Microelectronics Co., Ltd.

57.2 A Perceptual Brightness Evaluation Tool for Displays Applicable to Different Scenarios (16:50-17:10)

Yueyuan Zhang, Southeast University

57.3 Effects of Mobile Phone Luminance Adjustment Strategies on Visual Comfort under Indoor Lights-Off Conditions (17:10-17:30)

Lan He, Southeast University

57.4 The Phantom Array Effect on Mobile Phones (17:30-17:50)

Huimin Chen, Southeast University

Session 58: AI for Novel Applications (AI for Imaging and Display)

Thursday, April 2/16:50-18:30/ Fabulous Function Room C

Chair: Ying Gao (高颖), Qingdao University of Science and Technology

58.1 *Invited Paper:* On-Device AI: Gaussian-Sigmoid Transistors, Light-Driven Spikes, and Intelligent Risk Sensors (16:50-17:10)

Hocheon Yoo, Hanyang University

58.2 *Invited Paper:* Research on a Highly Robust Deep Learning Classification Model for Fine-Grained Industrial Surface Defect Detection (17:10-17:30)

Qinhao Piao, BOE Technology Group Co., Ltd.

58.3 *Invited Paper:* Complex Hologram Encoding Method for Holographic 3D Display (17:30-17:50)

Shufeng Lin (林述锋), Beijing University of Technology

58.4 Fine-Grained Action Detection in Visual HCI with Spatial Mask Video Foundation Models (17:50-18:10)

Haiyang Guo, BOE Technology Group Co., Ltd.

58.5 Process-Controllable Lithography Simulation Based on Flow Matching Generative Model (18:10-18:30)

Qiao Xu, BOE Technology Group Co., Ltd.

Session 59: Emerging LC Technology (Liquid-Crystal Technology)

Thursday, April 2/16:30-18:10/ Apollo VIP Room

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

59.1 *Invited Paper:* Actively Tunable Liquid Crystal Elastomer Terahertz/Microwave Metasurface (16:30-16:50)

Dan Luo (罗丹), Southern University of Science and Technology

59.2 *Invited Paper:* Enhancing Liquid Crystal Display Performance: From Second-Scale to Nanosecond Response Times (16:50-17:10)

Valeri Lapanik, Institute of Applied Physical Problems

59.3 *Invited Paper:* Fast Switchable Polarization Interference Filter using Ferroelectric Liquid Crystal (17:10-17:30)

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

59.4 *Invited Paper:* Generation and Modulation of High-Dissymmetry Circularly Polarized Luminescence (17:30-17:50)

Yanjun Liu (刘言军), Southern University of Science and Technology

59.5 Predicting Frank Elastic Constants of Nematic Liquid Crystals from Polarized Optical Microscopy Using Convolutional Neural Networks (17:50-18:10)

Giorgio Manzoni, The Hong Kong University of Science and Technology

Session 60: Optoelectronic Device Manufacturing - OLED (Display Manufacturing)

Thursday, April 2/16:30-18:10/ Meeting Room 103

Chair: Man Keung Fung, Macau University of Science and Technology/Soochow University

60.1 OLED Display Cutting-Using a Deep-UV Laser and Large Scan Field Optics to Improve the Edge Quality and Avoid Delamination in Foldable Displays (16:30-16:50)

Oliver Haupt, Coherent Corp.

60.2 Research on Residual Characteristics of Low-Temperature Curable Black Matrix for COE Technology Applied in OLED Display (16:50-17:10)

Weikang Xiao, Yungu (Gu'an) Technology Co., Ltd. (Visionox' s Affiliated Company)

60.3 Design and Fabrication of High-Performance Transparent Conductive Electrode (17:10-17:30)

Leah Yang, TCL China Star Optoelectronics Display Technology Co., Ltd.

60.4 Research Progress on the Impact of Plasma Treatment on the Luminous Efficiency of OLED Displays (17:30-17:50)

Yunqiang Yang, Hefei Visionox Technology Co., Ltd.

60.5 Failure Mechanism and Material System Collaborative optimization of AMOLED Modules Under Back Impact (17:50-18:10)

Yaling Wang, Yungu (Gu'an)Technology Co., Ltd. (Visionox)

Session 61: Novel Display System Technology 1 (Display System)

Thursday, April 2/16:30-18:10/ Meeting Room 102

Chair: Jiahui Wang, Sun Yat-sen University

61.1 *Invited Paper:* A Variable Refresh Rate Technology and Driving Scheme (16:30-16:50)

Yuqing Wang (王玉青), Hefei Govisionox Optoelectronics Co., Ltd.

61.2 Novel Structure Design for Mitigating Horizontal Stripe Mura in Display at Wide Viewing Angle (16:50-17:10)

Zhicong Zhai, Hefei Visionox Technology Co., Ltd.

61.3 Implementation of a Light Field Display for Personalized Content in Multi-Viewer Settings Based on Vector Pixel Scanning Technology (17:10-17:30)

Runshen Lu, Faith Billion Technology Development Limited

61.4 A Novel Approach to Natural Light Film for Eye-Protective Displays (17:30-17:50)

Ji Li, TCL China Star Optoelectronics Technology Co., Ltd.

61.5 An AI Technology Anti-Photography System for Display Terminals in Conference Scenarios (17:50-18:10)

Yimeng Ma, BOE Technology Group Co., Ltd.

Session 62: 3D and Sensors (Display Application)

Thursday, April 2/17:30-18:50/ Meeting Room 101

Chair: Qionghua Wang (王琼华), Beihang University

62.1 Novel View Synthesis for 3D Video Communication System (17:30-17:50)

Siyan Ma, BOE Technology Group Co., Ltd.

62.2 High-precision Human Eye Recognition System Based on Kalman Predictio*n* (17:50-18:10)

Jinhui Hua, Shanghai Tianma Microelectronics Co., Ltd.

62.3 A Polarization-Multiplexed Heterogeneous Microlens Array Enabling Light Field Display with Natural Defocus Blur (18:10-18:30)

Yifan Ding, Sun Yat-Sen University

62.4 Portable Light-Field AR Display for In-Situ 3D Ultrasound Guidance in Emergency Care (18:30-18:50)

Yutong Wu, Tsinghua University

Session 63: OLED - Device Physics (OLEDs)

Friday, April 3/8:30-9:50/ Felicity Function Room A

Chair: Jingyao Song, Guangzhou ChinaRay Optoelectronic Materials Co., Ltd.

63.1 *Invited Paper:* High Performance pTSF Devices to Meet the Demand for Wide Color Gamut (8:30-8:50)

Guomeng Li (李国孟), Beijing Visionox Technology Co., Ltd.

63.2 *Invited Paper:* Impact of Excited State on Efficiency Roll off in OLEDs (8:50-9:10)

Man Chung Tang (邓敏聪), Tsinghua University

63.3 *Invited Paper:* Fabrication of Plasmonic Printed OLEDs (9:10-9:30)

Spyros Kassavetis, Aristotle University of Thessaloniki

63.4 Transient Electroluminescence as a Unified Probe of Charge Transport and Recombination Dynamics in OLEDs (9:30-9:50)

Jeong-Hwan Lee, Inha University

Session 64: Channel Engineering for Oxide TFTs (Active-Matrix Device)

Friday, April 3/8:30-10:30/ Felicity Function Room B

Chair: Jiahao Kang (康佳昊), Peking University

64.1 *Invited Paper:* Functional Al2O3 Interfaces for Contact Improvement and Plasma Damage Protection in IGZO TFTs (8:30-8:50)

Soo-Yeon Lee, Seoul National University

64.2 *Distinguished Paper:* The Negative Bias Temperature Illumination Stress Mechanism of Top Gate Self Aligned Amorphous Oxide Semiconductor Thin Film Transistors (8:50-9:10)

Haoxiong Zhang, BOE Technology Group Co., Ltd.

64.3 LTPS TFT Taper Region Characterization Method and Its Application (9:10-9:30)

Weibin Zhang, Hefei Visionox Technology Co., Ltd.

64.4 Improved Bias Stability of Amorphous IGZO TFTs with Sol–Gel Metal Oxide Passivation Layers (9:30-9:50)

Hanzhi Huang, Sungkyunkwan University

64.5 Optimizing Dual-Gate ITZO TFT Performance by Tuning Oxygen Plasma Time in Plasma-Enhanced Atomic Layer Deposition (9:50-10:10)

Tan Zhang, Shandong University

64.6 Enhanced Stability of AOS TFTs via Hydrogen Regulation of Gate Insulator (10:10-10:30)
Yuchun Zhong, Peking University

Session 65: Holographic Display Elements (VR/AR/MR)
Friday, April 3/8:30-10:10/ Fabulous Function Room A
Chair: Jun Xia (夏军), Southeast University
65.1 *Invited Paper:* Application of Holographic Optical Elements in Near-Eye Display (8:30-8:50)
Juan Liu (刘娟), Beijing Institute of Technology
65.2 *Invited Paper:* Photopolymer-Based 2D Exit Pupil Expansion Volume Holographic Waveguide (8:50-9:10)
Chengzhe Chai (柴诚哲), Yongjiang Laboratory
65.3 Augmented-Reality Motorcycle Helmet Based on a Synergy of Holographic Approach and Laser-Beam Scanning Technology (9:10-9:30)
Sergei Ivanov, Emerging Technology Research Center, XPANCEO
65.4 High-Efficiency 2D Exit Pupil Expansion Waveguide Display System Based on Ultra-Broadband Polarization Volume Gratings (9:30-9:50)
Lili Liu, Southeast University
65.5 Expanding the Field of View of Light-Field Displays Using a Quasi-telecentric Pancake Lens (9:50-10:10)
Qimeng Wang, Sun Yat-sen University

Session 66: Display Measurement Methods - High-Dynamic Range and Wide Color Gamut Displays (Display Measurement)
Friday, April 3/8:30-10:10/ Fabulous Function Room B
Chair: Peng Zhuang (庄鹏), Xiamen Product Quality Supervision and Inspection Institute
66.1 *Invited Paper:* Characterization and Measurement Methods for Color Gamut of Displays Under Ambient Light (8:30-8:50)
Li Song (宋立), Everfine Corporation
66.2 *Invited Paper:* A Method for Evaluating CR under Ambient Light Conditions (8:50-9:10)
Lingdan Bo, BOE Technology Group Co., Ltd.
66.3 Multiple Color Matching Function 2D Colorimetry (9:10-9:30)
Andreas Liebel, Instrument Systems GmbH
66.4 Characterization of Factors Influencing the Measurement Results of Imaging Luminance Measuring Devices (ILMDs) (9:30-9:50)
Zeyuan Lou, Light-All Co., Ltd.
66.5 Perceptually Optimized Characterization for Displays using Sparse Color Sampling and sUCS (9:50-10:10)
Miaosen Zhou, Zhejiang University

Session 67: AI for Visualization and Graphics (AI for Imaging and Display)
Friday, April 3/8:30-9:50/ Fabulous Function Room C
Chair: Shufeng Lin (林述锋), Beijing University of Technology
67.1 *Invited Paper:* Perception-Oriented Stereo Matching and Scene Understanding (8:30-8:50)
Ying Gao (高颖), Qingdao University of Science and Technology

67.2 A Method for Generating New Viewpoints in Monocular Images Based on Diffusion Models (8:50-9:10)

Yingdong Gu, BOE Technology Group Co., Ltd.

67.3 DWvs: Depth-Guided Image Warping and Hole Filling for Novel View Synthesis (9:10-9:30)

Haozhan Wei, Southern University of Science and Technology

67.4 Low-Light Integral Imaging 3D Saliency Detection via a Physically-Guided Transformer with Retinex Prior (9:30-9:50)

Hanlin Liu, Xidian University

Session 68: Flexible Electronic Devices (E-Paper and Flexible Displays)

Friday, April 3/8:30-10:30/ Apollo VIP Room

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

68.1 *Invited Paper:* Highly Efficient, Fully Stretchable OLEDs (8:30-8:50)

Tae-Woo Lee, Seoul National University

68.2 *Invited Paper:* Fibertronic OLED Textiles for Wearable Displays (8:50-9:10)

Sung-Min Lee, Hanyang University

68.3 *Invited Paper:* Flexible, Foldable, and Stretchable QLEDs for Next-generation Display Applications (9:10-9:30)

Dong Chan Kim, Gachon University

68.4 A Stretchable, Transparent, and Conductive Hydrogel Fiber for Weavable ACEL Displays (9:30-9:50)

Ziming Xue, Wuhan Textile University

68.5 Factors Affecting Backside Impact Resistance in Bending Area of Foldable AMOLED Modules (9:50-10:10)

Shuang Wang, Hefei Govisionox Technology Co., Ltd.

68.6 Flexible, Multicolor Anti-Counterfeiting Textile Display Device Based on AC Electroluminescence (10:10-10:30)

Yuchen Yang, Wuhan Textile University

Session 69: Optoelectronic Device Manufacturing – LCD (Display Manufacturing)

Friday, April 3/8:30-9:50/ Meeting Room 103

Chair: Weikang Xiao, Yungu (Gu'an) Technology Co., Ltd. (Visionox's Affiliated Company)

69.1 A Strategy for Low Reflectance of 4-side Bezel-less LCD Display with TFT Glass Outside (8:30-8:50)

Xiaoping Yu, Shenzhen China Star Optoelectronics Technology Co., Ltd.

69.2 Design and Optimization of High-Performance Photo-Alignment Polyimide Films For Liquid Crystal Displays (8:50-9:10)

Yuanxi Liu, China Star Optoelectronic Technology Co., Ltd.

69.3 Panel Defect Detection Technique Operating in Display Driver IC Itself for Data and Scan Line of TFT-LCD Panel (9:10-9:30)

Cheonwi Park, DB GlobalChip

69.4 Analysis and Improvement of LCD Peeling by Polymer Film on Array (9:30-9:50)

ChunMei Li, TCL China Star Optoelectronics Technology

Session 70: Novel Display System Technology 2 (Display System)
Friday, April 3/8:30-10:10/ Meeting Room 102
Chair: Yimeng Ma, BOE Technology Group Co., Ltd.
70.1 *Invited Paper:* Trends in Display Technology in Russia (8:30-8:50)
Viacheslav Ivanov, National Research University Higher School of Economics
70.2 Theoretical Characteristics of LMR Used in Projectors (8:50-9:10)
Yury Gushcho, Longevity-122 AS
70.3 Computational Design and Optimization of Subpixel Concepts for Innovative OLED Displays (9:10-9:30)
Lu Zhang, Fluxim AG
70.4 Wide Range Low Power Intra-panel Interface Design Using AFC (Auto Frequency Control), ALC (Auto LCO Control) and ABC (Adaptive Bias Control) Technique in Large Display Driver IC (9:30-9:50)
TakJun Oh, DB Globalchip
70.5 *Distinguished Student Paper:* Breaking the Under-display Camera's Dilemma between Diffraction and Pixel Density Using Incoherent Pupil Synthesis (9:50-10:10)
Xinni Xie, Sun Yat-sen University

Session 71: LCD Application (Display Application)
Friday, April 3/8:30-9:50/ Meeting Room 101
Chair: Jun Pan, Xiaomi Group
71.1 *Invited Paper:* Liquid Crystal Spatial Light Modulators for Phase, Amplitude or Polarization Modulation (8:30-8:50)
Kristiaan Neyts, Hong Kong University of Science and Technology
71.2 Research on the Application of Field Sequential Color Display in Large and Medium-sized LCD Products (8:50-9:10)
Shuming Chang, TCL China Star Optoelectronics Technology Co., Ltd.
71.3 Innovative Application of Custom Color Space on Digital LCD Pen Display (9:10-9:30)
Zhiling Ma, Shenzhen Yinghongjun Intelligence Technology Co., Ltd.
71.4 Blue Photoresist Residue on Green Films: Mechanistic Insights and Effective Suppression Strategies (9:30-9:50)
Jiahao Zheng, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Session 72: OLED - Electrodes (OLEDs)
Friday, April 3/10:00-11:40/ Felicity Function Room A
Chair: Man Chung Tang (邓敏聪), Tsinghua University
72.1 *Invited Paper:* Enhanced Current Efficiency in Top-emitting Organic Light-emitting Diodes Using a Novel Mg:Ag/Ag Cathode Structure (10:00-10:20)
Sergey Stakharniy, Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia/Central Research Institute "Cyclone"
72.2 *Invited Paper:* Reduction of the Percolation Threshold of Ag Films Using a Surface-active ITO Layer (10:20-10:40)
Alexander Nuriev, Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia/Central Research Institute "Cyclone"

72.3 *Invited Paper:* Reflectance Differences in OLED COE Structure with Mg/Ag and Transparent Cathodes: A Comparative and Mechanistic Study via Optical Simulation (10:40-11:00)

Puyu Qi, Chengdu BOE Optoelectronics Technology Co., Ltd.

72.4 Microstructured Metal Electrodes Induced Light Manipulation in OLEDs (11:00-11:20)

Yangang Bi, Jilin University

72.5 Highly Conductive and Transparent Flexible Composite Electrodes for Flexible Organic Light-Emitting Diodes (11:20-11:40)

Jiamin Sun, South China University of Technology

Session 73: New Material TFTs (Active-Matrix Device)

Friday, April 3/10:40-12:20/ Felicity Function Room B

Chair: Haoxiong Zhang, BOE Technology Group Co., Ltd.

73.1 *Invited Paper:* Structure and Optical Properties of Thin-film Materials based on Phthalocyanine Derivatives (10:40-11:00)

Margarita Marchenkova, Ivanovo State University

73.2 *Invited Paper:* Reduced Processing Complexity via Single-Layer Dual-Gate Architecture in Organic Multimodal Thin-Film Transistors (11:00-11:20)

Radu Sporea, University of Surrey

73.3 *Invited Paper:* High-Performance Carbon Nanotube Thin Film Transistors Enabled by Atomic Layer Etching Process for Display Driving (11:20-11:40)

Yu Cao (曹宇), Peking University

73.4 Theory of the Distributions of the Hyper-Fine Sub-Boundaries in the (100)-Oriented Grain-Boundary-Free CW-Laser Crystallized Single Crystal Films on Insulator (11:40-12:00)

Nobuo Sasaki, Sasaki Consulting

73.5 Transistor-Level Tunable Sigmoid and Gaussian Activation Functions via Two-Gate Designs: From Analog Activation Function Control to Real-Time Hardware Demonstrations (12:00-12:20)

Junhyung Cho, Hanyang University

Session 74: Projection (Projection)

Friday, April 3/10:20-11:40/ Fabulous Function Room A

Chair: Bingang Guo, HoloKOOK Co., Ltd.

74.1 *Invited Paper:* Enhancing Speckle Reduction in Speckle-Reduce Screens via Phosphor Particle-based Wavelength Conversion (10:20-10:40)

Mulin Chen (陈牧林), HOLOKOOK Co., Ltd.

74.2 A Novel Free-Form, Fully Transparent Photon-Driven RGB Emissive Display (10:40-11:00)

Xiaodong Sun, Sun innovations Inc

74.3 Holographic 3D Display Based on Novel Dynamic Phase Modulators Current Status and Prospects (11:00-11:20)

Jianchao Zhang, Hisense Laser Display Co., Ltd.

74.4 Far-Field Distortion Correction and Comparative Analysis for 1D and 2D Scanner-Based Projection Systems (11:20-11:40)

Yuefan Shan, Beijing Institute of Technology

Session 75: Display Measurement Methods - Key Performance (Display Measurement)
Friday, April 3/10:20-12:00/ Fabulous Function Room B
Chair: Li Song (宋立), Everfine Corporation
75.1 *Invited Paper:* Research on Optical Improvement Scheme for BM-skip Solution of COE Products (10:20-10:40)
Ming Yang, BOE Technology Group Co., Ltd.
75.2 *Invited Paper:* Measurement, Evaluation, and Calibration of Luminance and Chromaticity Mura in Mini/Micro LED Displays (10:40-11:00)
Peng Zhuang (庄鹏), Xiamen Product Quality Supervision and Inspection Institute
75.3 *Invited Paper:* A Novel Method for Evaluating the Anti-Glare Performance of LCD Display (11:00-11:20)
Junying Xiao, BOE Technology Group Co., Ltd.
75.4 High-precision Hyperspectral Analyzer Applications in Optical Measurement of Micro LED Display (11:20-11:40)
Chen-Hsien Chu, TechnoOptis Co., Ltd.
75.5 Correction Methods, Equipment and Tools for Brightness Uniformity of LCD Modules (11:40-12:00)
Changjia Fu, Beijing BOE Display Technology Co., Ltd.

Session 76: Joint Session with Organic and Printed Electronics Association (OE-A) (Printed Display)
Friday, April 3/10:00-12:00/ Fabulous Function Room C
Chair: Luke Pan, Zhejiang Brilliant Optoelectronic Technology, OE-A
76.1 *Invited Paper:* Emerging Technologies for a Sustainable Electronic Industry (10:00-10:20)
Rodrigo Martins, NOVA University (FCT-NOVA)
76.2 *Invited Paper:* Introduction to Printed Electronics and New OE-A Roadmap (10:20-10:40)
Luke Pan, Zhejiang Brilliant Optoelectronic Technology, OE-A
76.3 *Invited Paper:* OTFT Backplanes: From Flexible ePaper Displays to Pixelated Dimming for Smart Glasses (10:40-11:00)
Elena Xie, FlexEnable
76.4 *Invited Paper:* Ultra Durable Printed Sensors (11:00-11:20)
Ivica Kolaric, Fraunhofer IPA
76.5 All Printed Flexible TFT-AM Device based on a Hybrid Gravure and Flexography Printing Strategy (11:20-11:40)
Junfeng Sun, Huazhong University of Science and Technology
76.6 Revolutionizing Manufacturing for Micro-Pixels & 3D Chip Interconnection with MEMS-type Industry EHD Printing Technology (11:40-12:00)
Wentang Hao, Scrona-YixinTech

Session 77: Electrophoretic Display (E-Paper and Flexible Displays)
Friday, April 3/10:40-12:20/ Apollo VIP Room
Chair: Shuang Wang, Hefei Govisionox Technology Co., Ltd.
77.1 *Invited Paper:* Application and Future Development of Inkjet Printing (IJP) Technology in Epaper (10:40-11:00)

Zhuo Zhang (张卓), National Innovation Technology Optoelectronics Equipment Co., Ltd.

77.2 *Invited Paper:* The Evaluating Methods and Optimizing Algorithm for the Ghosting of EPD (11:00-11:20)

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

77.3 High Performance Cholesteric Liquid Crystal Displays of Single Cell and Dual Cell Structures (11:20-11:40)

Xueqin Zhou, InfoVision Optoelectronics (Kunshan) Co., Ltd.

77.4 Quantum-Dot Dual-Mode Electrophoretic Displays for All-Weather Readability and Low-Power Bistable Imaging (11:40-12:00)

Xingke Zheng, Fuzhou University

77.5 Functional Coupling and Decoupling Strategies for Synergistic Optimization of Dual-Mode Performance in Fluorescent Electrophoretic Displays (12:00-12:20)

Junjie He, Sun Yat-sen University

Session 78: Mini/Micro LED Display Manufacturing (Display Manufacturing)

Friday, April 3/10:00-11:40/ Meeting Room 103

Chair: Xiaoping Yu, Shenzhen China Star Optoelectronics Technology Co., Ltd.

78.1 *Invited Paper:* Micro-LED Binning Technology with Improved Uniformity and Utilization (10:00-10:20)

Xintong Li (李欣曈), Chengdu Vistar Optoelectronics Co., Ltd.

78.2 *Invited Paper:* Laser Processing of MicroLED's Beyond Limits to Enable Mass Production of MicroLED Displays (10:20-10:40)

Oliver Haupt, Coherent Corp.

78.3 *Invited Paper:* Unlocking MicroLED's Potential: Next-Generation BEOL Integration for Scalable, High-Performance Displays (10:40-11:00)

Karan Khullar, GlobalFoundries

78.4 *Invited Paper:* Ultra-Precise Dispensing for Next-Generation Display Manufacturing: From Pixel Repair to Wrap-Edge Interconnects (11:00-11:20)

Filip Granek, XTPL SA

78.5 Optimization of High Copper Selective Deposition Process in Through Glass Vias (TGV) (11:20-11:40)

Jong Hyun Seo, Cuprum Materials Corp./ Korea Aerospace University

Session 79: 3D Display System (Display System)

Friday, April 3/10:20-12:00/ Meeting Room 102

Chair: Changqing Shao (邵长庆), Hisense Visual Technology Co., Ltd.

79.1 A Light-shaping Diffuser Film for 3D Display (10:20-10:40)

Runshen Lu, Faith Billion Technology Development Limited

79.2 Spatial Display Solution for Heavy Duty Vehicles Reverse Driving System (10:40-11:00)

Rolf-Dieter Naske, Metavista3D Inc.

79.3 Crosstalk Suppression and Interleaved Frame Rate Enhancement Technology for Naked-Eye 3D Displays (11:00-11:20)

Zhixin Wang, BOE Technology Group Co., Ltd.

79.4 Footage3D: A Low-Cost Method for Generating Autostereoscopic 3D Content from Moving Camera (11:20-11:40)

Mengjie Zhai, Southern University of Science and Technology

79.5 Resolution Enhancement of Naked-Eye 3D Displays Using a Combined Dual-Size Lens Array (11:40-12:00)

Haodong Wang, Shanghai Jiao Tong University

Session 80: Display Optimization (Display Application)

Friday, April 3/10:00-11:20/ Meeting Room 101

Chair: Shuming Chang, TCL China Star Optoelectronics Technology Co., Ltd.

80.1 A New Scheme for Optimizing the Switching Effect Between PWM Mode and DC Mode (10:00-10:20)

Xiuning Shangguan, Yungu (Gu'an) Technology Co., Ltd. (Visionox's Affiliated Company)

80.2 Optimizing Stimulus Arrangement for SSVEP-BCI Under Local Dimming Displays (10:20-10:40)

Yuang Li, Southeast University

80.3 RGB Mini-LED Backlit LCD Integrated with Multi-input, Multi-output, and Multi-color Li-Fi (10:40-11:00)

Zihao Liang, Sun Yat-sen University

80.4 Intelligent Television Control System Based on EEG–EOG Fusion (11:00-11:20)

Tong Zou, Southeast University

Session 81: OLED - Tandem & Top Emitting Devices (OLEDs)

Friday, April 3/13:30-15:30/ Felicity Function Room A

Chair: Jingyao Song, Guangzhou ChinaRay Optoelectronic Materials Co., Ltd.

81.1 *Invited Paper:* Analysis of Lateral Light Leakage in Tandem Organic Light-Emitting Diodes (13:30-13:50)

Masaru Inoue, TOYOTech LLC

81.2 *Invited Paper:* Enhancing Outcoupling and Widening Viewing Angles in Highly Efficient Microcavity TEOLEDs (13:50-14:10)

Min Chul Suh, Kyung Hee University

81.3 The Understanding and Improvement of Luminance Overshoot on Tandem OLED Production (14:10-14:30)

Xiaoning Liu, Hefei Visionox Technology Co., Ltd.

81.4 The Understanding and Improvement of Charge Generation Layer Stability in Tandem Organic Light-emitting Diodes (14:30-14:50)

Bin Liu, Yungu (Gu'an) Technology Co., Ltd.

81.5 Top Emission Full Color Active-Matrix Quantum Dot Light Emitting Display by Overlay Process (14:50-15:10)

Zhimin Yan, Kunshan Govisionox Optoelectronics Co., Ltd.

81.6 Transparent Tandem OLED with Symmetric Dual-Side Emission and Long Lifetime (15:10-15:30)

Guancheng Zhu, South China University of Technology

Session 82: TFT Circuits and Systems 1 (Active-Matrix Device)
Friday, April 3/13:30-15:30/ Felicity Function Room B
Chair: Yu Cao (曹宇), Peking University
82.1 *Invited Paper:* Full Oxide TFT Technology for AMOLED Displays (13:30-13:50)
Shengdong Zhang (张盛东), Peking University
82.2 A High Stability WOLED Display with Adapting GOA for Gaming MNT (13:50-14:10)
Zhidong Yuan, BOE Technology Group Co., Ltd.
82.3 Research on Solution for Improving Low-Frequency Flicker in LTPO Products (14:10-14:30)
Wenyu Zeng, Hefei Visionox Technology Co., Ltd.
82.4 A Novel Micro-LED Pixel Circuit Designed for Hybrid Pulse Modulation Driving Method (14:30-14:50)
Yingteng Zhai, Shanghai Tianma Microelectronics Co., Ltd.
82.5 Design of Triple Gate Display Panel with DLG Mode Support (14:50-15:10)
Tao Yang, BOE Technology Group Co., Ltd.
82.6 Implementation of CMOS GIP Circuits Using LTPO Technology (15:10-15:30)
Lanfen Lv, Hefei Visionox Technology Co., Ltd.

Session 83: Measurement Methods for Metaverse (Display Measurement)
Friday, April 3/13:30-15:10/ Fabulous Function Room B
Chair: Yanling Liu (刘艳玲), Visionox Technology Inc.
83.1 *Invited Paper:* A Study on the Impact of Virtual Display Distortion Characteristics on Visually Induced Motion Sickness (VIMS) (13:30-13:50)
Yandan Lin (林燕丹), Fudan University
83.2 Understanding and Optimizing Lens Performance in AR Display Metrology (13:50-14:10)
Bob Liu, Light-All Co., Ltd.
83.3 Gaze vs. View: A Framework for Correlating Dynamic and Static Measurements in AR Optical System (14:10-14:30)
Tianxing Zhu, Instrument Systems GmbH
83.4 Application of an Automated Detection System for Image Transmission Performance Evaluation of AR Waveguide (14:30-14:50)
Luning Liu, Wuhan Jingce Electronic Group Co., Ltd.
83.5 Quantitative Measurement of Binocular Just-Noticeable Color Difference (14:50-15:10)
Zheng Huang, Wuhan University

Session 84: Printed Display Manufacturing (Printed Display)
Friday, April 3/13:30-15:10/ Fabulous Function Room C
Chair: Shumeng Wang (王淑萌), Changchun Institute of Applied Chemistry, Chinese Academy of Sciences
84.1 *Invited Paper:* Unlocking the Potential of IJP OLED Technology (13:30-13:50)
Yuheng Liang (梁宇恒), TCL China Star Optoelectronics Technology Co., Ltd.
84.2 *Invited Paper:* Research Progress on the Industrialization of Printed QLEDs (13:50-14:10)
Yawen Chen (陈亚文) , Guangdong Juhua Printed Display Technology Co., Ltd.
84.3 Tailoring PEDOT:PSS Film Formation with Surfactants: Toward Efficient Large-Area Quantum Dot Light-Emitting Diodes (14:10-14:30)

Changfeng Han, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences

84.4 UV-Curable Quantum Dots: Synthesis and Patterning via High-Efficiency Piezoelectric Inkjet Printing (14:30-14:50)

Yongming Yin, Shenzhen MSU-BIT University

84.5 Ultrasound-Mediated Processing Technology for Modulating Viscoelasticity for Polymer Light Emitting Diodes (14:50-15:10)

Dongryul Lee, Pohang University of Science and Technology

Session 85: Components and Electronics for Flexible Displays (E-Paper and Flexible Displays)
Friday, April 3/13:30-14:30/ Apollo VIP Room
Chair: Jian Wang (王坚), Dongguan University of Technology

85.1 *Invited Paper:* Printed Sustainable Materials for Flexible Electronics and Energy Applications (13:30-13:50)

Elvira Fortunato, NOVA University Lisbon

85.2 High Quality Polyimides and Displays (13:50-14:10)

Zugang Liu, China Jiliang University

85.3 Research on the Rigid-Flexible Coupling Model for Multi-Objective Optimization of Flexible AMOLED Module and Foldable Hinge (14:10-14:30)

Baofeng Sun, BOE Technology Group Co., Ltd.

Session 86: Display Process & Equipment (Display Manufacturing)
Friday, April 3/13:30-15:10/ Meeting Room 103
Chair: Jiangang Lu (陆建钢), Shanghai Jiaotong University

86.1 Improvement Methods for Water Stain Mura in the 2W1D Process (13:30-13:50)

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

86.2 Multiple Display Mode Compatible Exposure Equipment and Exposure Process Development (13:50-14:10)

Ju Ren, Chengdu BOE Display Sci-tech Co., Ltd.

86.3 Research on the Design and Application of Integrated Cover (14:10-14:30)

Lifang Zhou, Visionox's Affiliated Company

86.4 Systematic Investigation of Substrate Type, AG Haze, and Low-Refractive-Index Layer Thickness on the Optical Performance of AGLR Coatings (14:30-14:50)

GangSheng Liu, TCL China Star Optoelectronics Technology Co., Ltd.

86.5 The Pad Structure Design to Improve the Success Rate of Cell Test (14:50-15:10)

Tingting Zhang, Hefei Visionox Technology Co., Ltd.

Session 87: Field Sequential Color Display (Display System)
Friday, April 3/13:30-15:10/ Meeting Room 102
Chair: Tiankuo Shi, Nanjing ICD Microelectronic Technology Co., Ltd.

87.1 *Invited Paper / Distinguished Paper:* RGB Mini LED backlight for Field Sequential Color LCD (13:30-13:50)

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

87.2 *Invited Paper:* Objective Flicker Evaluation of Field Sequential Color Displays (13:50-14:10)

Changqing Shao (邵长庆), Hisense Visual Technology Co., Ltd.

87.3 Towards Practical Field Sequential Color LCDs by Considering Non-ideal Spatiotemporal Characteristics (14:10-14:30)

Hengxuan Liu, Sun Yat-Sen University

87.4 Field-Sequential Color LCDs with Simultaneously Optimized Color Breakup, Distortion, and Flicker (14:30-14:50)

Feiyi Wu, Sun Yat-Sen University

87.5 A Hardware-Parallel Architecture for Real-Time Video and Audio Analysis and On-Screen Display in 4K Ultra-High-Definition Systems (14:50-15:10)

Wenyuan Zhao, Southeast University

Session 88: OLED Application (Display Application)

Friday, April 3/13:30-14:30/ Meeting Room 101

Chair: Jing Ba, TCL China Star Optoelectronics Technology Co., Ltd.

88.1 *Invited Paper:* Enhanced Low-Temperature Mechanical Reliability of Foldable Screen (13:30-13:50)

Shuangbing Zhang (张双兵), Hefei Visiononx Technology Co., Ltd.

88.2 *Distinguished Paper:* Novel AMOLED Panel with Anti-UV Design for Outdoor Application (13:50-14:10)

Zhiyong Xiong, Shanghai Tianma Microelectronics Company Limited

88.3 Research on the GIP Circuit Corrosion Mechanism in an AMOLED Module (14:10-14:30)

Zhijia Zhang, Yungu (Gu'an) Technology Co., Ltd. (Visionox's Affiliated Company)

Session 89: Antenna-on-Display (AoD) and Touch Displays (Touch & Interactive Displays)

Friday, April 3/15:40-17:20/ Felicity Function Room A

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

89.1 *Invited Paper:* Design Evolution of Millimeter-wave and Microwave Antenna-on-Display (AoD) on the TFE of an OLED Display for 5G and 6G Smartphones (15:40-16:00)

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

89.2 A Technology for Enhancing the Water Resistance of Touchscreen Edges (16:00-16:20)

Junjie Lv, Jiangsu Huixian Display Technology Co., Ltd.

89.3 Metal-Mesh In-Cell Touch Sensor for Interactive Micro-LED Displays (16:20-16:40)

Ziyang Ge, Peking University

89.4 An Intelligent Vision-Based Gesture Recognition Technology for Human–Computer Interaction Applications (16:40-17:00)

Enhao Shao, Southeast University

89.5 Study on the 1TFT-1C Touch Unit for Fingerprint Recognition with Conventional Neural Network (17:00-17:20)

Aoran Xu, Peking University

Session 90: TFT Circuits and Systems 2 (Active-Matrix Device)

Friday, April 3/15:40-17:20/ Felicity Function Room B

Chair: Zhidong Yuan, BOE Technology Group Co., Ltd.

90.1 *Invited Paper:* IGZO-Compatible 2T DRAM and RRAM Device Technologies for Potential Display-Driven Applications (15:40-16:00)

Sungjun Kim, Dongguk University

90.2 *Invited Paper:* Emerging Monolithic 3D Integration for Extreme-PPI AR/XR Microdisplay: Projection and Design (16:00-16:20)

Jiahao Kang (康佳昊), Peking University

90.3 The First Low-Power Consumption Liquid Crystal Display Panel Based on Dynamic Local Refresh Strategy of 1-120 Hz (16:20-16:40)

Haoxiong Zhang, BOE Technology Group Co., Ltd.

90.4 *Invited Paper:* Electrically Modulated Subthreshold Swing for Improved Current Control (16:40-17:00)

Man Wong (王文), The Hong Kong University of Science and Technology

90.5 *Distinguished Paper:* Ultra-Narrow Border Design for High-PPI Wearable Displays (17:00-17:20)

ManMan Li, Hefei Visionox Technology Co., Ltd.

Session 91: Measurement Methods for OLED (Display Measurement)
Friday, April 3/15:20-16:40/ Fabulous Function Room B
Chair: Yandan Lin (林燕丹), Fudan University

91.1 *Invited Paper:* A Quantitative Evaluation Method Towards The Clean and Legible Characteristics of OLED Displays (15:20-15:40)

Guoqiang Tang, Chengdu BOE Optoelectronics Technology Co., Ltd.

91.2 *Invited Paper:* Research on Flexible Display Folding Resilience Force Test (15:40-16:00)

Yanling Liu (刘艳玲), Visionox Technology Inc.

91.3 Research on Anti-Corrosion Testing Methods for AMOLED Modules (16:00-16:20)

Huiyun Zhu, Kunshan Govisionox Optoelectronics Co., Ltd.

91.4 Research on Thermal Dissipation in AMOLED Display Module for Handheld Gaming Application (16:20-16:40)

Zhiyong Xiong, Shanghai Tianma Microelectronics Company Limited

Session 92: Printed Display Materials (Printed Display)
Friday, April 3/15:20-17:00/ Fabulous Function Room C
Chair: Xiankai Chen (陈先凯), Soochow University

92.1 *Invited Paper:* Solution-Processed OLEDs at the Crossroads: Now Competing with Vacuum Thermal Evaporation in Performance (15:20-15:40)

Yaqin Pan (潘雅琴), Beijing Summer Sprout Technology Co., Ltd.

92.2 *Invited Paper:* Developing Anode Interfacial Layer for Printed OLED Applications (15:40-16:00)

Lei Ying (应磊), South China University of Technology

92.3 *Invited Paper:* Solution-Processed OLED Materials and Devices: Horizontal Dipole Orientation and Charge Transport Tuning (16:00-16:20)

Shumeng Wang (王淑萌), Changchun Institute of Applied Chemistry, Chinese Academy of Sciences

92.4 *Invited Paper:* Theoretical Insight into Precise Control of Dipole Horizontal Orientation in Emissive Layers in Solution-Processed OLEDs (16:20-16:40)

Xiankai Chen (陈先凯), Soochow University

92.5 *Invited Paper:* Multi-Dopant Strategy in Solution-Processed Emission Layer for High Performance Blue Fluorescent OLEDs (16:40-17:00)

Yanfeng Liu (刘彦峰), Zhejiang Brilliant Optoelectronic Technology Co., Ltd.

Session 93: Reflective Displays (E-Paper and Flexible Displays)

Friday, April 3/14:40-16:20/ Apollo VIP Room

Chair: Biao Tang (唐彪), South China Normal University

93.1 *Invited Paper:* ChLCD as the Next Generation Low-Power Outdoor E-Paper Display (14:40-15:00)

Tony Chang (张瑄堃), IRIS OPTRONICS Co., Ltd.

93.2 *Invited Paper:* Towards high-resolution Bright full-color Video-speed Reflective Display (15:00-15:20)

Biao Tang (唐彪), South China Normal University

93.3 *Invited Paper:* Full Color Reproduction in Electrochromic Display (15:20-15:40)

Jian Wang (王坚), Dongguan University of Technology

93.4 Flash-Free Partial Update of ZBD LCD (15:40-16:00)

Bryan-Brown Guy, New Vision Display

93.5 A Novel Full-Color Cholesteric Bistable Electronic Paper: Design, Fabrication, and Performance (16:00-16:20)

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

Session 94: Lighting (Lighting)

Friday, April 3/15:20-17:20/ Meeting Room 103

Chair: Ran Ding, Jilin University

94.1 *Invited Paper:* Candlelight OLED (15:20-15:40)

Jwohuei Jou (周卓煇), Taiwan Tsing Hua University

94.2 *Invited Paper:* Construction and Prospect of the Detection and Evaluation System for the Automotive Cabin Light Environment (15:40-16:00)

Zuo Zhu (竺佐), China Automotive Parts Technology (Tianjin) Co., Ltd.

94.3 A Novel High Performance Frontlight for Large Reflective Displays (16:00-16:20)

Peter Ren, New Vision Display

94.4 Intelligent Color-Temperature-Adjusted Lighting based on Novel Stacked OLEDs (16:20-16:40)

Can Yuan, BOE Technology Group Co., Ltd.

94.5 Mathematic Model of Lighting Illuminance Effects on Ocular Physiological Functions Illuminance-amplitude Effect and Illuminance-contrast-sensitivity Effect (16:40-17:00)

Jianqi Cai, China National Institute of Standardization

94.6 Organic Single-Crystalline Semiconductors for Light-Emitting Devices (17:00-17:20)

Ran Ding, Jilin University

Session 96: Emerging Application (Display Application)

Friday, April 3/14:40-16:00/ Meeting Room 101

Chair: Nan Zhang, Institute of Automation, Chinese Academy of Sciences

96.1 *Invited Paper:* Self-Illuminated Color Background Oriented Schlieren with Sub-Micron Displacement Accuracy Using Advanced Display Technologies (14:40-15:00)

Alexander Kurilov, Federal State University of Education

96.2 Software GenLock: Distributed Display Phase Synchronization via DPLL Frequency Modulation (15:00-15:20)

Arshad Mehmood, Intel Corporation

96.3 Virtual Yield Platform for Yield Simulation AI+EDA Co-Design Practice to Boost Display Panel Yield (15:20-15:40)

Jing Ba, TCL China Star Optoelectronics Technology Co., Ltd.

96.4 *Distinguished Student Paper:* High-Quality Metasurface Holographic Display and Applications (15:40-16:00)

Shuo Sun, China Jiliang University

Poster Session

P 1 AMD

P 1.1 A Dynamic Luminance Compensation Algorithm for Mitigating IR-Drop-Induced Brightness Non-Uniformity in AM Mini-LED Backlights

Xianke zhan, Tianma Microelectronics Co., Ltd.

P 1.2 Study on the Stability of IGZO Thin Film Transistors under AC Stress

Ting Chen, Tianma Microelectronics Co., Ltd.

P 1.3 A High Mobility and High Reliable Amorphous Oxide Top-gate TFT for 31 inch Ink-jet Printing OLED by Hybrid Backplane Technology

Chenning Liu, TCL China Star Optoelectronics Technology Co., Ltd.

P 1.4 A Novel LTPS TFT with Simple Architecture and Excellent Performance

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

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Minghe Chi, Shenzhen University

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

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Xuelin Fan, Hefei Visionox Technology Co., Ltd.

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Xiufeng Zhou, University of Electronic Science and Technology of China

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Jing Zhao, Yungu (Gu'an) Technology Co., Ltd. (Visionox’s Affiliated Company)

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Tomoyuki Maeda, TCL China Star Optoelectronics Technology Co., Ltd.

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Mei Hao, Hefei Visionox Electronic Co., Ltd.

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Le Chen, BOE Technology Group Co., Ltd.

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Liang Li, Xiamen Tianma Display Technology Co., Ltd.

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Pengpeng Dai, Chengdu BOE Optoelectronics Technology Co., Ltd.

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Qi Zhou, South China University of Technology
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Jiong Wang, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
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Hengrong Xu, South China Normal University

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Jingyu Nie, Ocean University of China
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Zihao Chen, Shenzhen University
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Aochen Du, Yili Normal University
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Jibin Liang, Shenzhen China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
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Ping Tan, Guangzhou Govisionox Technology Co., Ltd. (Visionox's Shareholding Company)
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Zhenping Xia, Suzhou University of Science and Technology
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Jianghua Hu, TCL China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
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Jiacheng Feng, TCL China Star Optoelectronics Display Technology Co., Ltd.
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Ting Xu, Shenzhen University of Information Technology
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Qiuyu Li, South China University of Technology
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Jiacheng Feng, TCL China Star Optoelectronics Display Technology Co., Ltd.
P 18.13 Investigation of Generation Mechanism and Improvement Strategies for Horizontal Streaks in In-cell Display Touch Panels
Min Xu, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.
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Liming Peng, Wuhan China Star Optoelectronics Technology Co., Ltd.
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Ziyuan Guo, Shanghai Jiao Tong University

P 18.16 Stability-Optimized Hydrothermally Grown ZnO Nanorod Integrated IZO TFT Force Sensors for Integrated Tactile Interfaces

Dantong Wang, South China University of Technology

P 18.17 Real In-cell Integrated Touch Sensor for Flexible OLED Display

Lihua Wang, Hefei Visionox Technology Co., Ltd.

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Karlheinz Blankenbach, Pforzheim University

P 19.2 Research on High Brightness PGU Technology for IRIS HUD

Lingyan Li, Tianma Microelectronics Co., Ltd.

P 19.3 Research on Holographic Diffusers with High Diffraction Efficiency and Large Eyebox

Yue Zhang, Hefei University of Technology

P 19.4 Research on Optical Performance Non-Uniformity of Flexible OLED Automotive Displays under Bending Stress

Gaohui Xie, Guangzhou Govisionox Technology Co., Ltd. (Visionox's Shareholding Company)

P 19.5 Research on Vehicle Display Technology Based on Mini-LED and Quantum Dots

Zhikai Wang, Shenzhen Planck Innovation Technology Co., Ltd.

P 19.6 Research on Visibility Phenomena Induced by Anode Surface Non-Flatness

Yamei Gao, Chengdu BOE Optoelectronics Technology Co., Ltd.

P 19.7 Study on Influencing Factors and Improvement of L0 Light Leakage in HFS Liquid Crystal Display under External Force

Xudong Wang, Guangzhou China Star Optoelectronics Semiconductor Display Technology Co., Ltd.

P 19.8 Vehicle Optical Display Quality at High and Low Temperatures

Jiaxin Ye, Guangzhou Govisionox Technology Co., Ltd.

P 19.9 Visual Brilliance Meets Eco-Friendliness: High-Performance Automotive Displays Based on Cadmium-Free Quantum Dots System Technology

Dandan Chu, Tianma Microelectronics Co., Ltd.

P 19.10 Integrated Optimization of Layer Stress and Mechanical Systems for Dynamic Bending OLED Displays

Zhihao Li, Visionox Technology Co., Ltd.

P 19.11 The Uniformity of Dynamic Bending OLED Display for Automobile Cockpit

Zhihao Li, Visionox Technology Co., Ltd.

P 19.12 Research on the Calibration Problem of Virtual and Real Scene Coordinate Systems Corresponding to Head-Up Displays in Smart Cockpit Systems

Shi-Hwa Huang, Taiwan University of Science and Technology

Distinguished Paper

To recognize the most significant technical advances presented at ICDT 2026, a number of papers have been selected for the Distinguished Paper Award. The award papers were selected through evaluation and voting by the Technical Committee of SID Beijing Chapter. The selection is based on the originality and innovation of the work, the technical significance of the results, and the clarity and overall quality of the manuscript published in the ICDT proceedings.

1.2 *Invited Paper / Distinguished Paper:* Boosting the Efficiencies of OLEDs through ViP^{TM} Technology (8:50-9:10)

Minghan Cai (蔡明瀚), Visionox Technology Inc.

14.4 *Distinguished Paper:* Studies On a-IGZO TFTs Reliability with Different Light-Shielding-Layer Size for Improvement of Short Channel Device in High PPI VR/AR LCD Display Technology (11:40-12:00)

Dandan Sun, BOE CHUANGYUAN Technology Co., Ltd.

17.5 *Distinguished Paper:* Transversely Oriented Polyvinyl Alcohol Polarizer for Ultra-Large TFT-LCDs (11:40-12:00)

Puman Huang, TCL China Star Optoelectronics Technology Co., Ltd.

21.1 *Invited Paper / Distinguished Paper:* 3D-OLED: Displays with Pixels in Three Dimensions (8:30-8:50)

Peter Levermore, Excyton

22.3 *Distinguished Paper:* Arylphosphine Oxide Derivative for OLEDs: Exhibiting Robust Stability Under Device Operation & Simulated Evaporation Chamber Conditions (9:10-9:30)

Xuhui Zhu, South China University of Technology

35.1 *Invited Paper / Distinguished Paper:* GaN-On-Si Single-Chip Full-Color Micro-LED Display (13:30-13:50)

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

37.1 *Invited Paper / Distinguished Paper:* Adaptive Dominant Eye-Based Binocular Vision for Virtual Reality (13:30-13:50)

Chaoping Chen (陈超平), Shanghai Jiao Tong University

46.3 *Distinguished Paper:* Prospective Wearable Display Glasses Built-In with Terahertz Wireless Communications (16:00-16:20)

Darwin Hu, Phasereality Laboratory, Sysview Technology, Inc.

64.2 *Distinguished Paper:* The Negative Bias Temperature Illumination Stress Mechanism of Top Gate Self Aligned Amorphous Oxide Semiconductor Thin Film Transistors (8:50-9:10)

Haoxiong Zhang, BOE Technology Group Co., Ltd.

87.1 *Invited Paper / Distinguished Paper:* RGB Mini LED backlight for Field Sequential Color LCD (13:30-13:50)

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

88.2 *Distinguished Paper:* Novel AMOLED Panel with Anti-UV Design for Outdoor Application (14:10-14:30)

Zhiyong Xiong, Shanghai Tianma Microelectronics Company Limited

90.5 *Distinguished Paper:* Ultra-Narrow Border Design for High-PPI Wearable Displays (17:00-17:20)

ManMan Li, Hefei Visionox Technology Co., Ltd.

Distinguished Student Paper

To encourage excellence among young researchers and to recognize outstanding student contributions submitted at ICDT 2026, a number of papers have been selected as Distinguished Student Paper Award. The award papers were selected by the Technical Committee of SID Beijing Chapter through a comprehensive review process. The evaluation criteria include originality, technical merit, research impact, and the quality of paper in the conference proceedings.

15.3 *Distinguished Student Paper:* How Reliable is Human Memory Color? A Case Study Based on Multiple Methods and Neural Network Prediction (10:40-11:00)

Zhiyu Chen, Wuhan University

18.4 *Distinguished Student Paper:* Eliminating Sunlight Backflow in AR-HUDs through a Faraday Rotator under the étendue Constraint (11:20-11:40)

Yi Liu, Sun Yat-sen University

20.5 *Distinguished Student Paper:* Research on Material Optimization and Pixel Structure for Micro-LED Quantum Dot Color Conversion (12:00-12:20)

Xinyi Wang, Shanghai University

31.5 *Distinguished Student Paper:* Lanczos-Based Perception-Enhanced Super-Resolution (LPSR) for Real-Time Mobile Image Enhancement (11:40-12:00)

Chenhao Hu, Southeast University

43.5 *Distinguished Student Paper:* A Physics-Based Compact Modeling Framework for OLEDs: Capacitance Analysis, Prediction, and Application (16:40-17:00)

Yujia Gong, Peking University

46.6 *Distinguished Student Paper:* Synthetic-Aperture Wavefront Coding Enabling a Full Depth-of-Field for Light-Field Displays (17:00-17:20)

Mingjing Wang, Sun Yat-sen University

48.5 *Distinguished Student Paper:* AI-Algorithm-Driven Automated Layout Generation Method for Flat Panel Display with High Aperture-Ratio and Charging-Ratio (16:00-16:20)

Haodong Tang, Peking University

54.5 *Distinguished Student Paper:* Large-Area Complementary Organic-Inorganic Hybrid TFT Technology for Integrated On-Panel Computing in Immersive Display Systems (18:30-18:50)

Zhengyang Hu, Shanghai Jiaotong University

70.6 *Distinguished Student Paper:* Breaking the Under-display Camera's Dilemma between Diffraction and Pixel Density Using Incoherent Pupil Synthesis (10:10-10:30)

Xinni Xie, Sun Yat-sen University

96.5 *Distinguished Student Paper:* High-Quality Metasurface Holographic Display and Applications (16:20-16:40)

Shuo Sun, China Jiliang University

P 3.2 *Distinguished Student Paper:* A GAN-Based Integrated Simulation-Inference Framework for Efficient IR-Drop Compensation

Han Zhang, Shanghai Jiao Tong University

P 7.39 *Distinguished Student Paper:* Study on Transfer Performance of Receiving Tape for GaN Micro-LEDs in Direct Laser Transfer Process

Zhu Yang, Shanghai University

P 12.7 ***Distinguished Student Paper:*** **Clipping-Free DBS with Partition Fusion and Inter-Frame Correlation for μ-Fluidink Video Display**

Xinyue Liu & Congyi Chen, Nanjing University

P 13.11 ***Distinguished Student Paper:*** **Development of Inkjet-Printed Color Photoresist as an Alternative to Photolithography**

Nianjia Li, Shenzhen MSU-BIT University