



Digital Earth & Space

Sep.23, VIP Room	
President: Nan Chi, School of Information Science and Technology, Fudan University	
13:30-14:00 (Keynote)	Infrared Intellectual Perception and Space Metaverse Shengli Sun Shanghai Institute of Technical Physics of the Chinese Academy of Sciences
14:00-14:30 (Keynote)	Intelligent interpretation of remotely sensed big data Bing Zhang Aerospace Information Research Institute, Chinese Academy of Sciences
14:30-15:00 (Keynote)	From Earth to Deep Space Objects: Recent Advance in Remote Sensing and Mapping Xiaohua Tong Tongji University
President: Rong Shu, Shanghai Institute of Technical Physics of the Chinese Academy of Sciences	
15:00-15:20 (Invited)	Improving space asset management and collision avoidance capabilities through high-precision visualization of space target situation deduction Ke Zhang GeovisTT&CTechnologyCo., Ltd
15:20-15:40 (Invited)	Building a globally leading integrated satellite constellation to serve the high-quality development of the digital economy Dongsheng Liu PIESAT Company
15:40-16:00 (Invited)	Intelligent Satellite Processing Technology and Application in Blue Carbon Economy Zhiyu Yan Zhuhai Aerospace Microchips Science & Technology Co., Ltd.
President: Jianhua Gong, Aerospace Information Research Institute, Chinese Academy of Sciences	
16:00-16:30	Panel Discussion
16:30-16:50 (Invited)	Application of artificial intelligence to smart city construction from a spatial perspective Xiang Li East China Normal University
16:50-17:10 (Invited)	Perceptual interaction of generalized point cloud for intelligent construction of large-scale infrastructure Chun Liu Tongji University
17:10-17:20	ESIT2023-0809-33 Joint geometric calibration using multiple images for linear array optical imaging satellite Hao Wu ^{1,2} , Shijie Liu ^{1,2} , Xiaohua Tong ^{1,2} 1.College of Surveying and Geo-Informatics, Tongji University, China; 2.Shanghai Key Laboratory for Planetary Mapping and Remote Sensing for Deep Space Exploration, Tongji University, China
17:20-17:30	ESIT2023-0808-34 Research on the Concept and Key Issues of Aerospace Metaverse Zhong Wang; Shengli Sun; Rui Chen; Tijun Ma; Wenjun Xu; Yafeng Zhang Shanghai Institute of Technical Science



17:30-17:40	ESIT2023-0825-4 An Instant Neural Rendering and 3D Reconstruction Method and Its Application in Outdoor Scenes Jiangfeng She, Shuangpin Wu School of Geography and Ocean Sciences, Nanjing University
17:40-17:50	ESIT2023-0809-25 Digital twin based high-precision deformation monitoring method for complex structures Tianhe Gao, Kuo Tian, Xuanwei Hu, Yiwei Huang Dalian University of Technology
Sep.24, VIP Room	
Presider: TBD	
8:30-9:00 (Keynote)	A Primary Exploration of Geographic Metaverse from the Perspective of Virtual Geographic Environment Jianhua Gong Aerospace Information Research Institute, Chinese Academy of Sciences
9:00-9:20 (Invited)	Digital Earth Science Platform Supporting the SDG Applications: Cases, Challenges and Opportunities Xiaoping Du Aerospace Information Research Institute, Chinese Academy of Sciences
9:20-9:40 (Invited)	Lightweight Mobile Web3D Key Technology for Massively Multi-player Online Metaverse Platform Jinyuan Jia Smart 3D Lab WebSite, School of Software, Tongji University
9:40-10:00 (Invited)	Next-Generation Urban Management: When Human Mobility Modeling Meets AI and Big Data Xuan Song Southern University of Science and Technology
10:00-10:10	ESIT2023-0726-2 Structural strength digital twin modeling method Kuo Tian Dalian University of Technology
10:10-10:20	ESIT2023-0814-1 A Geometry-Based Method for Visualizing Time-varying Flow Fields on Map Platforms Using Texture Polymorphism Yucheng Shu, Songshan Yue Nanjing Normal University
10:20-10:35	Coffee Break
Presider: TBD	
10:35-10:55 (Invited)	Urban Sensing and Simulation with AI and Spatiotemporal Big Data Qingfeng Guan China University of Geosciences, Wuhan
10:55-10:15 (Invited)	6G-oriented visible light communication Ziwei Li Fudan University
10:15-11:35 (Invited)	红外载荷数字孪生驱动的仿真技术 Peng Rao Shanghai Institute of Technical Physics of the Chinese Academy of Sciences



11:35-11:45	ESIT2023-0807-14 Potential and performance for classifying land surface only with ICESat-2 altimetric data Yuan Sun ^{1,2} ;Huan Xie ^{1,2*} ;Qi Xu ^{1,2} ;Binbin Li ^{1,2} ;Peiqui Huang ^{1,2} ;Changda Liu ^{1,2} ;Min Ji ^{1,2} ;Xiaohua Tong ^{1,2} 1.College of Surveying and Geo-Informatics, Tongji University, China;2.Shanghai Key Laboratory of Space Mapping and Remote Sensing for Planetary Exploration, China
11:45-11:55	ESIT2023-0808-2 Imaging simulation and analysis of attitude jitter effect on topographic mapping for lunar satellite stereo optical cameras Chen Chen ^{1,2} ;Shijie Liu ^{3,4*} ;Zhen Ye ^{3,4} ;Xiaohua Tong ^{3,4} 1.College of Surveying and Geo-Informatics,Tongji University;2.Shanghai Key Laboratory for Planetary Mapping and Remote Sensing for Deep Space Exploration,Tongji University;3.College of Surveying and Geo-Informatics, Tongji University;4.Shanghai Key Laboratory for Planetary Mapping and Remote Sensing for Deep Space Exploration, Tongji University
11:55-12:05	ESIT2023-0808-20 Advancements in Digital Twin Technology for Simulation and Health Prediction of Infrared Optomechanical System Xiaozhuo wang Shanghai Institute of Technical Physics of the Chinese Academy of Sciences
Presider: TBD	
13:30-13:50 (Invited)	Revolutionizing Urban Mobility: The powerful combination of AIGC and City Simulators Yong Li Tsinghua University
13:50-14:00	ESIT2023-0809-14 A constant bank angle based two-stage predictor-corrector method for Mars atmospheric entry Zhixian Luo ^{1,2} , Yanmin Jin ^{1,3*} , Xiaohua Tong ^{2,4} 1.College of Surveying and Geo-Informatics, Tongji University, China; 2.Shanghai Key Laboratory of Space Mapping and Remote Sensing for Planetary Exploration, China; 3.hanghai Key Laboratory of Space Mapping and Remote Sensing for Planetary Exploration, China; 4.College of Surveying and Geo-Informatics, Tongji University, China
14:00-14:10	ESIT2023-0809-2 High fidelity digital human generation method based on polarization gradient light images Shuo Huang ^{1*} , Hongyi Bu ² , Yong Hu ¹ , Cailan Gong ¹ , Zixuan Han ¹ , Han Wang ¹ 1.Shanghai institute of technical physics, China; 2.Jiaxing super dimensional Information Technology Co., LTD, China
14:10-14:20	ESIT2023-0807-13 Stereo matching for lunar surface reconstruction with an improved census cost Miyu Zhou;Zhen Ye;Yusheng Xu;Rong Huang;Xiaohua Tong Tongji University
14:20-14:30	ESIT2023-0808-12 Numerical validation of lunar subsurface dielectric property estimation based on full waveform inversion Shurui Chen, Feng Yongjiu Tongji University
14:30-14:40	ESIT2023-0817-2 Remote Sensing Image Classification by Integrating Multiple Feature Parameters Jintao Liang ¹ , Chao Chen ^{2*} , Zhisong Liu ¹ , Yankun Chen ¹ 1.zhejiang ocean university, China; 2.Suzhou University of Science and Technology, China



14:40-14:50	<p>ESIT2023-0822-1 Farmland Boundary Extraction from Remote Sensing Imagery Based on Segment Anything Model Mengyu Hu^{1,2}, Jianhua Gong^{1,2,3*}, Dongqing Cao^{1,2}, Yousong Zhang⁴, Jianru Wang⁴, Weidong Hu³, Hongchao Cai⁵, Dongchuan Wang⁵ 1.Aerospace Information Research Institute (AIR), Chinese Academy of Sciences, China; 2.University of Chinese Academy of Sciences, China; 3.Zhejiang-CAS Application Center for Geoinformatics, China; 4.Zhejiang Marine and Fishery Law Enforcement Corps, China; 5.School of Geology and Geomatics, Tianjin Chengjian University, China</p>
14:50-15:00	<p>ESIT2023-0813-2 Multi-perspective regional continuity alignment network for hyperspectral-LiDAR image fusion and classification Weixin Ding, Wenbo Yu, Xiao Chen, He Huang Soochow University</p>
15:00-15:10	<p>ESIT2023-0912-1 基于复杂体系的融合感知装备及其数字化概念 Haibin Sun 中国科学院上海技术物理研究所、中国科学院智能红外感知重点实验室</p>