



EIT2024

THE 24TH INTERNATIONAL CONFERENCE ON
BIOMEDICAL APPLICATIONS OF
ELECTRICAL IMPEDANCE TOMOGRAPHY
第24届国际电阻抗成像生物医学应用会议

CONFERENCE PROGRAM

27th-30th June, 2024 Hangzhou, China
2024年6月27-30日 中国 杭州





EIT脑部电阻抗动态成像系统

EIT BRAIN ELECTRICAL IMPEDANCE DYNAMIC IMAGING SYSTEM

颅脑损伤无创连续动态监测 | 颅内压变化无创监测

医疗器械注册证编号:苏械注准 20162071274



EIT-B300



EIT-B400



EI-B100

产品背景 Product background

产品源于与空军军医大学军事生物医学工程学系的合作研究,研究团队完成了电阻抗动态图像监测的生物物理基础、成像原理、技术方法、物理与动物模型的实验研究,在国际上率先开展了脑损伤动态监测的临床研究,证实了电阻抗动态成像技术在颅脑损伤实时动态监测方面的重大临床价值和前景。

该项技术的研究先后获得3项国家自然科学基金重点项目、20项国家自然科学基金面上项目以及3项国家科技支撑计划项目等支持。先后发表论文350多篇(其中SCI/EI收录200余篇),获得国家发明专利50余项,软件著作权30余项。电阻抗成像设备已经列入《中国制造2025计划》,是国家重点发展和扶持的技术领域。

应用场景 Application scenarios

脑部电阻抗动态成像系统采用电阻抗断层成像原理,突破了颅脑实时动态成像的关键技术。在国际上首次观察到重度脑水肿脱水治疗、脑血肿引流治疗、主动脉弓部手术中脑损伤等过程中颅内的实时动态图像变化,可为临床提供脑损伤变化实时监测及预警新的有效方法。可用于神经内科&神经外科ICU、急诊、心胸外科等多种应用场景。



急救车中快速准确分诊



床旁脑损伤变化过程无创长时连续监测



术中实时动态监测脑供血情况

核心原理 Core Principles

设备通过贴在患者头部周围的生物电极阵,释放低频安全激励电流,形成微电流场,精准捕获患者脑部组织阻抗数据信息,并依据独创的成像算法重建阻抗图像及曲线。

设备能够实时动态监测患者脑损伤的病情变化,指导临床医生准确评估脑损伤发展趋势,优化治疗方案,改善患者愈后生存质量,降低致死率及致残率。



诊断更早期

实时成像,可实现脑水肿无创连续动态监护



适用范围广

适合多场景使用



安全/无创/便携

无损伤检测,不使用核素或射线,操作简单,便携可移动



国际原创

科技部认证,国际原创,弥补现有医学影像不足



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Welcome to EIT 2024

Greetings from the banks of the storied West Lake, where we are thrilled to assemble the brightest minds for the 24th International Conference on Biomedical Applications of Electrical Impedance Tomography (EIT 2024), taking place in the culturally rich and technologically advanced city of Hangzhou from June 27th to 30th, 2024.

Under the esteemed guidance of the Chinese Society of Biomedical Engineering and the Chinese Medical Doctor Association, hosted jointly by Sir Run Run Shaw Hospital Zhejiang University School of Medicine, Zhejiang University of Technology, Guangzhou Medical University, and the Zhejiang Council for Health Services Promotion, EIT 2024 embodies a collaborative endeavor to propel the frontiers of Electrical Impedance Tomography, with its potential for non-invasive monitoring and diagnostic precision, forms the nucleus of our explorations.

In the four days, EIT 2024 offers a compact schedule filled with keynote speeches, technical sessions, interactive workshops, and stimulating panel discussions. We aim for substance over spectacle, ensuring that every interaction fosters understanding and collaboration. Come expecting to share your trials, triumphs, and the tangible ways EIT is impacting patient care in your corner of the world.

Hangzhou, a city where ancient beauty harmoniously intersects with innovation, provides a fitting backdrop for this international gathering. Participants will not only engage in intellectual discourse but also immerse in a city known for its scenic wonders and pioneering spirit.

To each participant, whether physically present or joining remotely, we express our sincere gratitude. Your unique perspectives and experiences are invaluable contributions to our collective quest for better healthcare solutions.

May your time at EIT 2024 yield not only professional enrichment but also personal fulfillment, leaving you with cherished memories of Hangzhou!

Conference Chairs

Feng Fu

Lixin Xie



EIT 2024 Conference Program

Thursday, June 27th		Lobby of Sorl Hotel Hangzhou
14:00–20:00	Offline Participant Registration	
15:00–17:00	Online Listener Microsoft Teams Testing https://www.academicconf.com/teamslink?confname=EIT2024	
Friday, June 28th		Yunjiang Hall, 2F
Opening Ceremony & Special Session “The Status of EIT in China” Chaired by		
08:30–09:00	Welcome Address+Group Photo	
09:00–09:25	Speech 1: EIT Technology and Device Development	Feng Fu
09:25–09:50	Speech 2: Respiratory Support: From Learning, Imitation, to Innovation — 301 PCCM Team's Experience	Lixin Xie
09:50–10:15	Speech 3: What Kind of Information Can Regional Perfusion Provide?	Yun Long
10:15–10:30	Q&A	
10:30–10:50	Tea Break	
10:50–11:15	Speech 4: Is It Necessary to Have an EIT Device in the ICU?	Ling Sang
11:15–11:40	Speech 5: What are We Still Missing to Routinely Use EIT in Clinical Practice in China?	Ling Liu
11:40–12:05	Speech 6: Priori-driven and Deep Learning Enabled Electrical Impedance Tomography	Dong Liu
12:05–12:20	Q&A	
12:30–13:10	Sciospec Lunch Seminar	
13:30–15:10	Oral Session 1: Clinical Applications - Chest 1	
15:10–15:30	Tea Break	
15:30–17:20	Oral Session 2: Clinical Applications - Chest 2	
17:20–18:30	Poster Session (Qianjiang Hall, 1F)	

Saturday, June 29th		Yunjiang Hall, 2F
Keynote Speeches Chaired by		
08:30–09:10	Speech 1: Beyond Human: Taking EIT into the Animal World	Andy Adler
09:10–09:20	Q&A	
09:20–10:00	Speech 2: EIT is Not Only a Research Tool: How to Embed EIT in Clinical Routine?	Huaiwu He
10:00–10:10	Q&A	
10:10–10:30	Tea Break	
10:30–11:10	Speech 3: Clinical Applications of EIT in Paediatrics	David Tingay
11:10–11:20	Q&A	
11:20–12:00	Speech 4: Development of an EIT System: Challenges and Opportunities	Eung Je Woo
12:00–12:10	Q&A	
12:10–12:20	Q&A for 4 Speakers	
12:30–13:10	Drager Lunch Seminar	
13:30–15:10	Oral Session 3: Clinical Applications - Others	
15:10–16:40	Poster Session & Tea Break (Qianjiang Hall, 1F)	
16:40–18:20	Oral Session 4: Other Applications	
Sunday, June 30th		Yunjiang Hall, 2F
08:30–10:10	Oral Session 5: Hardware & Algorithm 1	
10:10–10:30	Tea Break	
10:30–12:10	Oral Session 6: Hardware & Algorithm 2	
12:10–12:25	Closing Ceremony	
12:30–13:10	Lunch	
13:30–17:00	Visit the Zhijiang branch of Zhejiang Provincial Museum (gather in the lobby at 13:30)	



EIT 2024 会议日程中文版

6月27日 星期四		杭州瑞立江河汇酒店一楼大厅
14:00-20:00	线下参会代表签到	
15:00-17:00	线上旁听参会代表 Microsoft Teams 测试 https://www.academicconf.com/teamslink?confname=EIT2024	
6月28日 星期五		二楼钱江厅
开幕式和“中国 EIT 的进展”专场（主持人）		
08:30-09:00	开幕式 + 合影	
09:00-09:25	报告 1: EIT 技术及相关设备的开发	付 峰
09:25-09:50	报告 2: 呼吸支持: 从学习, 模仿, 到创新—301PCCM 团队的经验	解立新
09:50-10:15	报告 3: 区域肺灌注到底能给我们提供什么信息?	隆 云
10:15-10:30	问答环节	
10:30-10:50	茶歇	
10:50-11:15	报告 4: EIT 是重症患者治疗过程中的必要工具吗?	桑 岭
11:15-11:40	报告 5: 在中国 EIT 要成为临床日常患者救治工具, 到底还缺点什么?	刘 玲
11:40-12:05	报告 6: 先验驱动及深度赋能电阻抗成像	刘 东
12:05-12:20	问答环节	
12:30-13:10	Sciospec 宣讲和午餐	
13:30-15:10	口头报告 1: 临床应用 - 胸部 1	
15:10-15:30	茶歇	
15:30-17:20	口头报告 2: 临床应用 - 胸部 2	
17:20-18:30	张贴报告 (一楼钱江厅)	

6月29日 星期六		二楼云江厅
大会报告（主持人）		
08:30-09:10	报告 1：人类之外：将 EIT 技术带入动物世界	Andy Adler
09:10-09:20	问答环节	
09:20-10:00	报告 2：EIT 不仅是一种研究工具：如何将 EIT 技术纳入临床常规？	何怀武
10:00-10:10	问答环节	
10:10-10:30	茶歇	
10:30-11:10	报告 3：EIT 技术在儿科的临床应用	David Tingay
11:10-11:20	问答环节	
11:20-12:00	报告 4：EIT 技术开发：挑战和机遇	Eung Je Woo
12:00-12:10	问答环节	
12:10-12:20	总问答环节	
12:30-13:10	德尔格宣讲和午餐	
13:30-15:10	口头报告 3：临床应用 - 其他	
15:10-16:40	海报张贴和茶歇（一楼钱江厅）	
16:40-18:20	口头报告 4：其他应用	
6月30日 星期日		二楼云江厅
08:30-10:10	口头报告 5：硬件和算法 1	
10:10-10:30	茶歇	
10:30-12:10	口头报告 6：硬件和算法 2	
12:10-12:25	闭幕式	
12:30-13:10	午餐	
13:30-17:00	参观浙江省博物馆之江馆（13:30 在一楼大厅集合）	



EIT 2024 Exhibition Program

Thursday, June 27th		
09:00–12:00	Exhibitor Registration / Entry Preparations	Foyer of Qianjiang Hall, 1F
13:00–17:00	Exhibition Floor Open	Qianjiang Hall, 1F
Friday, June 28th		
08:30–08:40	Opening Ceremony	Welcome Address
08:40–08:50		Welcome Address
08:50–09:00		Group Photo
09:00–12:20	Exhibition Floor Open	Qianjiang Hall, 1F
12:30–13:10	Sciospec Lunch Seminar	Yunjiang Hall, 2F
13:30–18:30	Exhibition Floor Open	Qianjiang Hall, 1F
Saturday, June 29th		
08:30–12:20	Exhibition Floor Open	Qianjiang Hall, 1F
12:30–13:10	Drager Lunch Seminar	Yunjiang Hall, 2F
13:30–18:30	Exhibition Floor Open	Qianjiang Hall, 1F
Sunday, June 30th		
08:30–12:20	Exhibition Floor Open	Qianjiang Hall, 1F
12:30–13:10	Lunch	Yunjiang Hall, 2F
13:30–17:00	Visit the Zhijiang branch of Zhejiang Provincial Museum (gather in the lobby at 13:30)	

Keynote Speeches



Keynote Speech 1: Beyond Human: Taking EIT into the Animal World

Prof. Andy Adler, Research Professor, Carleton University, Ottawa, Canada

Prof. Adler is a Canada Research Professor in biomedical engineering in Systems and Computer Engineering at Carleton University in Ottawa, Canada. He has worked with electrical impedance tomography (EIT) technology since the early 1990s. His primary interest is in robust EIT data analysis with a focus on novel dynamic parameters and novel applications of impedance imaging. He is the maintainer of the EIDORS.org open-source software for EIT, has lead consensus projects on EIT, worked with four EIT-based start-up companies, published 142 journal papers and edited a book on EIT. Andy enjoys visiting and collaborating with many research groups throughout the world.



Keynote Speech 2: EIT is Not Only a Research Tool: How to Embed EIT in Clinical Routine?

Prof. Huaiwu He, Associate Chief Physician of the Intensive Care Medicine Department, State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, China

Prof. He is an associate Chief Physician of the Intensive Care Medicine Department, State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences. He was resident in the Peking Union Medical College Hospital till 2010. He was a visiting scholar in Erasmus Medical Centre, Rotterdam, Netherland between 2016–2017. He engaged in medical-teaching-research in the field of intensive care medicine for nearly 20 years, focusing on areas such as ARDS respiratory failure, hemodynamics microcirculation, and quality control in critical care. He led several national and provincial research projects including the National Key Research and Development Program and the National Natural Science Foundation. He has published over a hundred academic articles in journals like *Am J Respir Crit Care Med*, *Critical Care*, and *Shock*.

His main research interests include classification and scoring system of macro-microcirculation coupling in shock resuscitation, development of new monitoring technologies such as $PtO_2/PtCO_2$, oxygen challenge test, and SDF. Dr. He also focuses on the bedside technique of hyper-tonic saline contrast-enhanced EIT pulmonary perfusion imaging, resolving the challenge of bedside pulmonary perfusion imaging and establishing bedside pulmonary perfusion and regional V/Q impedance imaging methods.



Keynote Speeches

Keynote Speech 3: Clinical Applications of EIT in Paediatrics



Prof. David Tingay, Royal Children's Hospital, Melbourne, Australia

Prof. David is a clinical neonatologist and respiratory physiologist at the Royal Children's Hospital (Melbourne, Australia) whose work aims at improving the respiratory outcomes of newborn infants. David currently leads the Murdoch Children's Research Institute Neonatal Research Program. This is an interconnected program of molecular and clinical science aiming to better understand lung injury and develop new neonatal critical care respiratory support strategies. David has been using EIT to achieve these aims for more than 15 years. David is the current Chair of the Respiratory Failure Section of the European Society of Paediatric and Neonatal Intensive Care and a commissioner for the Lancet Commission on the Future of Neonatology. David's research has developed guidelines on neonatal ARDS, chest imaging and Paediatric COVID-19 therapies, and is lead investigator of the international POLAR Trial of PEEP strategies to support the preterm lung at birth and the BLUEPRINT Study to map the phenotypes and evolution of preterm lung injury.



Keynote Speech 4: Development of an EIT System: Challenges and Opportunities

Prof. Eung Je Woo, CTO of BiLab, Professor Emeritus of Biomedical Engineering, College of Medicine at Kyung Hee University, Republic of Korea

Prof. Eung Je Woo is CTO of BiLab and Professor Emeritus of Biomedical Engineering in the College of Medicine at Kyung Hee University in Korea. In 1990, he received his Ph.D. degree in Electrical and Computer Engineering from the University of Wisconsin-Madison. He received B.S. and M.S. degrees in Electronics Engineering from Seoul National University in 1983 and 1985, respectively. His primary research interests include electrical impedance tomography (EIT), magnetic resonance electrical impedance tomography (MREIT), conductivity tensor imaging (CTI), and bioelectromagnetism. He was Director of the Impedance Imaging Research Center (IIRC) at Kyung Hee University, which he founded in 2002. He served as a member of the IEEE EMBS AdCom, an associate editor of IEEE Transactions on Biomedical Engineering, and a member of the International Advisory Board for Physiological Measurement. He was the Program Chair of the World Congress on Medical Physics and Biomedical Engineering (WC2006) and the IEEE EMBC17. He was the president of the ISEBI from 2019 to 2022 and the president of the ISBEM from 2021 to 2022. In 2020, he was elected as a fellow of the IAMBE. He founded a company, BiLab, to commercialize the EIT technologies and innovations from his long-term R&D efforts for noninvasive cardiopulmonary monitoring.

Invited Speeches

Invited Speech 1: EIT Technology and Device Development



Prof. Feng Fu, Director, Chinese Society of Biomedical Engineering, China

Prof. Fu, a director of the Chinese Society of Biomedical Engineering, has won the first prize of Shaanxi Provincial Science and Technology Award and the first prize of Shanxi Provincial Teaching Achievement Award. He has presided over the National Key R&D Program, the National Natural Science Foundation of China, the National Natural Science Foundation of China, and the Shaanxi Provincial Key R&D Program. 4 medical device registration certificates and 32 invention patents have been obtained; published more than 150 papers; He is a vice chairman of the Health Engineering Branch, a member of the National Biomedical Engineering Education and Guidance Committee, and an executive director of the Shaanxi Biomedical Engineering Society. Shanxi Province Science and Technology Innovation Leading Talent.



Invited Speech 2: Respiratory Support: From Learning, Imitation, to Innovation — 301 PCCM Team's Experience

Prof. Lixin Xie, Administrative Director, Chief Physician, Deputy Chairman of the Chinese Medical Doctor Association, China

- Chief Physician, Professor, Doctoral Supervisor
- Deputy Chairman of the Chinese Medical Doctor Association
- Head of the Respiratory Therapy Group of CTS
- Editorial Board Member of Chinese Medical Journal, Chinese Journal of Tuberculosis and Respiratory Diseases, and Chinese Journal of Internal Medicine
- Deputy Editor-in-Chief of the International Journal of Respiratory Diseases and CDTM
- Deputy Chairman of the Critical Care Specialty Committee of the Chinese Respiratory Physicians Association
- Deputy Chairman of the Respiratory Rehabilitation Committee of the Chinese Society of Rehabilitation Medicine



Invited Speeches



Invited Speech 3: What Kind of Information Can Regional Perfusion Provide?

Prof. Yun Long, Chief Physician, Director of Critical Care Medicine Department, Peking Union Medical College Hospital, China

Prof. Long is a Chief Physician and the Director of the Department of Critical Care Medicine at Peking Union Medical College Hospital. He serves as the Chairman of Intensive Care Branch of Chinese Society of Health Information and Big Data Medicine and the Executive Committee Member of Intensive Care Medicine Branch of Chinese Medical Doctor Association. He has long devoted into the clinical treatment and research of ARDS, hemodynamics and sepsis. He proposed the circulation protective ventilation strategies for ARDS in 2015. His recent main research interest is the clinical application of chest electrical impedance tomography. He led the drafting of the first Chinese expert consensus on the clinical application of chest electrical impedance tomography in critical respiratory management.



Invited Speech 4: Is It Necessary to Have an EIT Device in the ICU?

Prof. Ling Sang, Party Secretary, Deputy Director (Administration), Chief Physician, Professor, PhD Supervisor, and Postdoctoral Cooperative Supervisor at the Department of Critical Care Medicine, the First Affiliated Hospital of Guangzhou Medical University/Guangzhou Institute of Respiratory Health, China

Prof. Sang obtained his Bachelor's degree in Clinical Medicine from Guangzhou Medical University in 2004. He later worked at the First Affiliated Hospital of Guangzhou Medical University and the Respiratory Health Research Institute, where he earned his Master's and Doctoral degrees. In 2015, he went to Toronto General Hospital for a visiting scholarship. He serves as a young committee member in multiple academic societies, with research interests covering Electrical Impedance Tomography (EIT), respiratory mechanics, and more. He has acquired 24 national patents and published 72 papers, including 54 SCI-indexed articles. He developed a new algorithm to evaluate the degree of 'swinging breathing', which was adopted by European expert consensus. He has been dedicated to promoting EIT technology. In 2022, he participated in the compilation of the "Chinese Expert Consensus on the Clinical Application of Pulmonary Electrical Impedance Imaging Technology in Critical Respiratory Management" and led the completion of a multi-center EIT clinical trial related to this. Recently, he integrated EIT with ventilators to develop an intelligent lung-protective ventilator. This device has already received medical device registration certification and its effectiveness has been clinically verified.



Invited Speech 5: What are We Still Missing to Routinely Use EIT in Clinical Practice in China?

Prof. Ling Liu, Vice director, Department of Critical Care Medicine, Zhongda Hospital of Southeast University, China

Prof. Liu, MD, PhD, FCCS, is the Vice Director of the Department of Critical Care Medicine at Zhongda Hospital of Southeast University in Nanjing, China. In addition to her clinical and administrative roles, Prof. Liu serves as a postgraduate tutor at the School of Medicine, Southeast University, contributing to the education and training of future medical professionals. She holds a significant position as the Vice-Chairman of the Youth Committee within the Chinese Society of Critical Care Medicine, under the auspices of the Chinese Medical Association. Prof. Liu is actively involved in academic publishing, serving as an Editorial Board Member and Executive Director for Critical Care Medicine, as well as an Associate Editor for the Annals of Intensive Care. Throughout her career, she has published over 100 articles in esteemed journals, including Lancet Digital Health, Am J Respir Crit Care Med, Small, and Critical Care, demonstrating her extensive contributions to the field of critical care medicine.



Invited Speech 6: Priori-driven and Deep Learning Enabled Electrical Impedance Tomography

Prof. Dong Liu, School of Biomedical Engineering and Suzhou Institute for Advanced Research, University of Science and Technology of China, China

Prof. Liu, Senior Member, IEEE, earned his Ph.D. in applied physics from the University of Eastern Finland, Kuopio, Finland, in 2015. Since 2016, he has been affiliated with the CAS Key Laboratory of Microscale Magnetic Resonance at the University of Science and Technology of China, Hefei, where he currently holds the position of Research Professor. From 2023 onward, he has expanded his involvement to the School of Biomedical Engineering and Suzhou Institute for Advanced Research, University of Science and Technology of China, China. Prof. Liu's research revolves around applied inverse problems and medical imaging. His current focus lies in developing innovative model-driven and learning-based algorithms to address inverse problems across diverse biomedical and engineering applications. One of his primary areas of expertise is electrical impedance tomography.



Oral Presentations

Oral Session 1: Clinical Applications – Chest 1

Session Time: 13:30–15:10, June 28th

Session Chair: Huiqing Ge, Sir Run Run Shaw Hospital, Hangzhou, China

13:30-13:40	EIT1001	Effects of Recruitment Maneuver on Regional Respiratory Mechanics in Patients with Acute Hypoxemic Respiratory Failure Rui Zhang, Ruijin Hospital, Shanghai Jiao Tong University, Shanghai, China
13:40-13:50	EIT1014	Contactless EIT for Lung Respiratory Monitoring Yuxi Guo, Shenzhen Institute for Advanced Study, UESTC, Shenzhen, China
13:50-14:00	EIT1172	Feasibility of Detecting Ineffective Inspiratory Effort during Mechanical Ventilation using Electrical Impedance Tomography Shuyang Jiang, Zhejiang University of Technology, Hangzhou, China
14:00-14:10	EIT1071	Early Lung Function Screening with EIT Mingyi Kong, Guangzhou Medical University, Guangzhou, China
14:10-14:20	Q&A	
14:20-14:30	EIT1125	Pulmonary Ventilation Heterogeneity Determined by Electrical Impedance Tomography during Pulmonary Function Testing in Patients with Normal One-second Rates Jiayi Li, Zhejiang University, Hangzhou, China
14:30-14:40	EIT1157	A Feasibility Study on the Clinical Application of 3D Thoracic Impedance Imaging Sheng Zhang, Peking University Shenzhen Hospital, Shenzhen, China
14:40-14:50	EIT1048	Impact of Arm Position on Chest Electrical Impedance Tomography Antoine Dupré, Sentec AG, Landquart, Switzerland
14:50-15:00	EIT1065	Electrical Impedance Tomography Guided Positive End-expiratory Pressure Titration in Critically Ill and Surgical Adult Patients: A Systematic Review and Meta-analysis Yelin Gao, Chinese Academy of Medical Sciences, Beijing, China
15:00-15:10	Q&A	

Oral Session 2: Clinical Applications – Chest 2

Session Time: 15:30–17:20, June 28th

Session Chair: Zhe Li, Shanghai Jiao Tong University, Shanghai, China

15:30-15:40	EIT1069	Feasibility Study of EIT Image Technology for Non-invasive Real-time Monitoring and Early Warning of Pulmonary Embolism Junyao Li, Air Force Medical University, Xi'an, China
15:40-15:50	EIT1051	Effect of Individualized Positive End-expiratory Pressure Titrated by EIT on Ventilation-perfusion Distribution in Patients with Acute Respiratory Distress Syndrome Xueyan Yuan, Zhongda Hospital, Southeast University, Nanjing, China
15:50-16:00	EIT1078	Time-dependent Effects of Prone Position on Ventilation-perfusion Matching Assessed by Electrical Impedance Tomography in Patients with COVID-19 ARDS: Sub-analysis of a Prospective Physiological Study Yuxian Wang, Zhongshan Hospital of Fudan University, Shanghai, China
16:00-16:10	EIT1097	Quantitative Metrics for Evaluating V/Q Matching in EIT Images Hongyu Duan, Infvision Medical Imaging Technology Co., Ltd., Beijing, China
16:10-16:20	Q&A	
16:20-16:30	EIT1119	Pendelluft May Increase in Obstructive Lung Diseases after 6-min Walk Test Lu Cao, Chinese PLA General Hospital, Beijing, China
16:30-16:40	EIT1039	EIT-based Study of Lung Ventilation, Lung Perfusion Regional Distribution and Ventilation/Perfusion Match in Different Body Postures Tixin Han, Air Force Medical University, Xi'an, China
16:40-16:50	EIT1120	Comparing EIT Ventilation/Perfusion Assessment Approaches in Experimental Hypoxemic Acute Lung Injury Zhe Li, University Medical Center Göttingen, Germany
16:50-17:00	EIT1112	Ventilation Distribution in Infants Post-Liver Transplantation Xiaolan Chen, Shanghai Jiao Tong University, Shanghai, China
17:00-17:10	EIT1032	High-speed Impedance Imaging-based Cardiopulmonary Function Monitoring in OSA Patients during CPAP Titration Study You Jeong Jeong, Kyung Hee University, Seoul, Republic of Korea
17:10-17:20	Q&A	



Oral Session 3: Clinical Applications – Others

Session Time: 13:30–15:10, June 29th

Session Chair: Qun Zhao, University of Georgia, Athens, GA., USA

13:30-13:40	EIT1059	Challenges and Benefits of Integrating EIT and MRI: Liver Fat Spectral Modelling in Preclinical Swine Models Qun Zhao, University of Georgia, Athens, GA., USA
13:40-13:50	EIT1026	Feasibility of Noninvasive Electrical Impedance Tomography Monitoring to Predict Neurological Dysfunction after Total Aortic Arch Replacement Chen Yang, Xijing Hospital, Xi'an, China
13:50-14:00	EIT1031	Detection of Severe Cerebral Haemorrhage by a Multi-Frequency Magnetic Induction Tomography Device: A Clinical Trial Ruigang Liu, Hangzhou Utron Technology Co., Ltd., Hangzhou, China
14:00-14:10	EIT1044	Feasibility Study of Cerebral Perfusion Uniformity Monitoring using Electrical Impedance Tomography in Ectothermic Period of Cardiopulmonary Bypass Wenjing Zhu, Northwestern Polytechnical University, Xi'an, China
14:10-14:20	Q&A	
14:20-14:30	EIT1046	Impedance Changes during Seizures Based on Dynamic Cerebral Perfusion EIT: A Preliminary Study Xiaoxiao Bai, Northwestern Polytechnical University, Xi'an, China
14:30-14:40	EIT1088	A Magnetic Induction Phase Sensor for Cerebral Hemorrhage Detection Jie Liu, Army Medical University, Chongqing, China
14:40-14:50	EIT1117	Pilot Clinical Trial of Monitoring Hemorrhagic Transformation after Thrombectomy in Acute Ischemic Stroke Using EIT Hailong Yu, Northern Jiangsu People's Hospital, Yangzhou, China
14:50-15:00	EIT1005	Structural Visualization in Porcine Lymphedema Subcutaneous Adipose Tissue Phantoms by Four-Dimensional Open Electrical Impedance Spectro-tomography (4D-oEIST) Yiqun Tang, Chiba University, Chiba, Japan
15:00-15:10	Q&A	

Oral Session 4: Other Applications

Session Time: 16:40–18:20, June 29th

Session Chair: Xuetao Shi, Air Force Medical University, Xi'an, China

16:40-16:50	EIT1008	Frequency-difference Cell Imaging with Flexible Micro-EIT Sensor Hao Fang, The University of Edinburgh, Edinburgh, UK
16:50-17:00	EIT1015	A Dynamic Imaging Method of Capacitively Coupled Electrical Impedance Tomography (CCEIT) Yimin Wu, Zhejiang University, Hangzhou, China
17:00-17:10	EIT1028	“Colour Me Beautifully” an Update from the Workshop in EIT 2023 Diogo F. Silva, RWTH Aachen University, Aachen, Germany
17:10-17:20	EIT1028	Beyond Simplism: Unveiling Bias in EIT Perfusion Models Diogo F. Silva, RWTH Aachen University, Aachen, Germany
17:20-17:30	Q&A	
17:30-17:40	EIT1029	Multi-modal EIT Imaging with Hologram-guided Group Sparsity Ronald B. Liu, The University of Edinburgh, Edinburgh, UK
17:40-17:50	EIT1060	In Vivo Temperature-dependent Electrical Properties of the Healthy and Cancerous Hepatic Tissue in a Mouse Model between 1Hz and 1MHz Yitong Guo, Shaanxi Provincial Key Laboratory of Bioelectromagnetic Detection and Intelligent Perception, Xi'an, China
17:50-18:00	EIT1052	Imaging of Brain Tumor Tissues by Principal Component Analysis-based Electrical Impedance Tomography Ruimin Zhou, Chiba University, Chiba, Japan
18:00-18:10	EIT1122	Smart Adhesive Bandage System for Detection of Intravenous Infusion Leakage Using Bioelectrical Impedance Measurement Zhijun Li, Sun Yat-Sen University, Shenzhen, China
18:10-18:20	Q&A	



Oral Session 5: Hardware & Algorithm 1

Session Time: 08:30–10:10, June 30th

Session Chair: Qing Pan, Zhejiang University of Technology, Hangzhou, China

08:30-08:40	EIT1004	Time-constant-domain Electrical Impedance Tomography (tcdEIT) for Dermis Layer Visualization Kiagus Aufa Ibrahim, Chiba University, Chiba, Japan
08:40-08:50	EIT1070	Improving Imaging Quality for Electrical Impedance Tomography via Low-Rank Matrix Recovery Zhanglei Shi, China University of Petroleum (East China), Qingdao, China
08:50-09:00	EIT1019	Dynamic EIT Reconstruction with Low-Rank and Sparse Prior Baojie Zhang, Tianjin University of Science and Technology, Tianjin, China
09:00-09:10	EIT1033	Cross-frequency Fusion in CFSF-Net for Enhanced Time-difference Electrical Impedance Tomography Xiang Tian, Fourth Military Medical University, Xi'an, China
09:10-09:20	Q&A	
09:20-09:30	EIT1021	Learning-based Methods for Low-quality EIT Image Enhancement Zichen Wang, Tiangong University, Tianjin, China
09:30-09:40	EIT1040	Multi-frame Multi-scale Data Fusion Strategy to Suppress EIT Image Artifacts Jian'an Ye, Fourth Military Medical University, Xi'an, China
09:40-09:50	EIT1074	A Stable Symmetry Difference EIT Algorithm for Stroke Detection Based on Dual-Frequency Difference and Edge Region Suppression Zhibo Zhao, Air Force Medical University, Xi'an, China
09:50-10:00	EIT1067	Modification of Calderon's Method for Non-Circular Boundary Objects via Conformal Mapping in EIT Hangyu Zhong, Civil Aviation University of China, Tianjin, China
10:00-10:10	Q&A	

Oral Session 6: Hardware & Algorithm 2

Session Time: 10:30–12:10, June 30th

Session Chair: Dong Liu, University of Science and Technology of China, Suzhou, China

10:30-10:40	EIT1118	A Data Compensation Method for Reducing Impact of Cerebrospinal Fluid Change in Electrical Impedance Tomography Xuechao Liu, Fourth Military Medical University, Xi'an, China
10:40-10:50	EIT1085	Low-rank Plus Sparse Matrix Decomposition for 3D Dynamic Electrical Impedance Tomography Tianchen Zhao, Tiangong University, Tianjin, China
10:50-11:00	EIT1105	EIT-DPM: Diffusion Probabilistic Model for Electrical Impedance Tomography Reconstruction Qilin Zhang, Hefei Institutes of Physical Science, Hefei, China
11:00-11:10	EIT1047	Flexible Electrical Impedance Tomography by Robots Zhuoqi Cheng, University of Southern Denmark, Odense, Denmark
11:10-11:20	Q&A	
11:20-11:30	EIT1124	Impact of Electrode Configurations on the Reconstruction of 3D Lung Electrical Impedance Tomography: A Numerical Study Yifan Liu, Fourth Military Medical University, Xi'an, China
11:30-11:40	EIT1025	Development of a Portable EIT System based on Android Platform with Wi-Fi Data Transmission Fusheng You, UTRON Technology Co. Ltd, Hangzhou, China
11:40-11:50	EIT1023	Electrical Impedance Tomography (EIT) Sensor Design for Early Diabetic Foot Ulcers (DFUs) Detection Yunqian Wang, Xi'an University of Technology, Xi'an, China
11:50-12:00	EIT1049	EIT Monitoring of Breathing Dolphins Andy Adler, Carleton University, Ottawa, Canada
12:00-12:10	Q&A	



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Poster Presentations

EIT1002	Improved Data-Driven EIT Imaging for Temporal Sequences using Recurrent Neural Networks Jacob Thönes, University of Rostock, Rostock, Germany
EIT1003	Image Reconstruction based on an Improved Dense Fully Connected Network for Brain Electrical Impedance Tomography Yanyan Shi, Henan Normal University, Xinxiang, China
EIT1007	EIT Gesture Recognition with Temporal Convolutional Networks Hancong Wu, South China University of Technology, Guangzhou, China
EIT1017	On a Focusing Sensing Method for Contactless Brain Imaging Yandan Jiang, Zhejiang University, Hangzhou, China
EIT1018	EIDORS Version 3.12 Andy Adler, Carleton University, Ottawa, Canada
EIT1020	Sensitivity of Pair-drive EIT in Circular Domains Andy Adler, Carleton University, Ottawa, Canada
EIT1024	Double-layer Electrical Impedance Tomography for Identification of Upper Airway Closure: A Preliminary Study with PSG and CT Tingting Zhang, Kyung Hee University, Seoul, Republic of Korea
EIT1034	A Channel Consistency Metric Method for EIT Systems Yulin Min, Sealand Technology Ltd., Chengdu, China
EIT1035	Digital Multi-frequency Phase Detection Method of MIT Cheng Chen, Hangzhou Utron Technology Co., Ltd., Hangzhou, China
EIT1036	A 3D Brain EIT Data Acquisition System with 20-Electrode Configuration Siyuan Bai, Northwestern Polytechnical University, Xi'an, China
EIT1037	A Preliminary Study on the Application of Electrical Impedance Tomography Based on Cerebral Perfusion Monitoring to Intracranial Pressure Changes Yu Wang, Liaoning Technical University, Huludao, China
EIT1038	Correlation between Electrical Impedance Tomography and Intracranial Pressure Mingxu Zhu, Air Force Medical University, Xi'an, China
EIT1041	Research on the Relationship between Blood Dielectric Parameters and Blood Gas Indicators Wang Weice, Air Force Medical University, Xi'an, China

EIT1054	Closed-Loop Tumor Treatment Fields for Lung Tumor Therapy: A Simulation Study Minmin Wang, Zhejiang University, Hangzhou, China
EIT1061	Portable Adjustable Electrical Impedance Tomography System Zekun Chen, Northeast Normal University, Changchun, China
EIT1063	Multi-Frequency Electrical Impedance Tomography for Dynamic Multiphase Flow Imaging Shengnan Wang, China Jiliang University, Hangzhou, China
EIT1064	Ventilation and Perfusion Observation in Renal Hemorrhagic Fever Combined with ARDS Based on Electrical Impedance Tomography Weichen Li, Northwest University, Xi'an, China
EIT1068	An Explainable Artificial Intelligence Framework for Weaning Outcomes Prediction based on Electrical Impedance Tomography Pu Wang, Fourth Military Medical University, Xi'an, China
EIT1076	Bronchoalveolar Lavage Linearly Correlated with the Electrical Impedance Tomography Parameters of Δ Defect Score and Δ COV Aijie Yang, The First Affiliated Hospital of Xi'an Jiaotong University, Xi'an, China
EIT1077	The High Frame EIT System and its Validation for Lung Ventilation Jinchi Xian, Chinese Academy of Sciences, Guangzhou, China
EIT1080	Three-dimensional Shape Reconstruction Algorithm of Electrical Impedance Tomography for Breast Tumour Visualization Jie He, Nanjing University of Aeronautics and Astronautics, Nanjing, China
EIT1081	Bayesian Reconstruction of EIT using Split Gibbs Sampler Yuzhe Ling, Central South University, Changsha, China
EIT1082	A Monitoring System for Muscle Training Evaluation based on Electrical Impedance Tomography Junwen Peng, Nanjing University of Aeronautics and Astronautics, Nanjing, China
EIT1083	Comparison of Pulmonary Dead Space Fraction based on Electrical Impedance Tomography, Blood Gas, and Ventilators in Lung Transplant Recipients Hui Jiang, The First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China
EIT1084	Chest EIT based on Lagrange Multipliers Reconstruction Nima Seifnaraghi, Middlesex University, London, UK
EIT1087	An Endoscopic Convex Electrical Impedance Tomography Sensor for Soft Robot in Early Gastric Cancer Identification Songpei Hu, Nanjing University of Aeronautics and Astronautics, Nanjing, China



EIT1089	Analyse Intra-abdominal Hemorrhage Electrical Characteristics by Electrochemical Impedance Spectroscopy Zihan Zhao, Xi'an University of Technology, Xi'an, China
EIT1090	A Universal Lung Modeling Method for 2D/3D EIT Imaging based on CT Scan Sirui Qiao, Shanghai Jiao Tong University, Shanghai, China
EIT1094	Deep Generative Model-Integrated 3-D EIT Image Reconstruction Ke Zhang, Tsinghua University, Beijing, China
EIT1095	Comprehensive Dataset for EIT Grounded in Human Physiology Zeyi Jiang, Shanghai Jiao Tong University, Shanghai, China
EIT1098	A New Solution to the Inverse Power Flow Problem in Network Models in Magnetic Induction Tomography Martin Wachs, Ruhr West University of Applied Sciences, M ü lheim an der Ruhr, Germany
EIT1099	A 24-Electrode Three-Dimensional Electrical Impedance Tomography System Zhiwei Li, Nanjing University of Aeronautics and Astronautics, Nanjing, China
EIT1100	Study on Time Delay between EIT Signal and Ventilator Volume Pulse Shuzhe Chen, Tsinghua University, Beijing, China
EIT1101	Assessment of Pulmonary Perfusion with Electrical Impedance Tomography: A Special Case with Pulmonary Embolism Lingming Wang, Tianjin Hospital, Tianjin, China
EIT1102	Generative Adversarial Network for Extraction of Cardiac-Related Signals in EIT Yuxuan Cai, Institute of Precision Medicine Tsinghua University, Beijing, China
EIT1103	Integration of Electrical Impedance Tomography, Microwave Tomography, and Ultrasound Tomography Based on Feature Decoupling for Human Thorax Imaging Zhichao Lin, Tsinghua University, Beijing, China
EIT1104	Pseudo-Domain Adversarial Network with Electrical Impedance Tomography for Electrode Offset Error Gengchen Xu, Hefei Institutes of Physical Science, Hefei, China
EIT1106	Employing Physics-Informed Neural Networks (PINN) to Address EIT Problems with Discrete Electrodes Xuanxuan Yang, Hefei Institutes of Physical Science, Hefei, China
EIT1116	Anatomically Accurate Torso Mesh for EIT Andy Adler, Carleton University, Ottawa, Canada
EIT1123	Clinical Trial Feasibility Evaluation of the Effectiveness of an EIM System for Breast Cancer Examination Wei Wang, Micro Image Biotech Ltd, Ningbo, China
EIT1173	Technical Specifications for Regional Lung Function Assessment Based on Electrical Impedance Tomography Zhanqi Zhao, Guangzhou Medical University, Guangzhou, China

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