

PIBM 2023 Plenary Sessions

Afternoon Wednesday 29 March

Location: Hexie Ballroom 和谐厅	
Chairs: Qingming Luo , Hainan University (China); Valery V. Tuchin , Saratov State University (Russia)	
13:30-14:00 (9:30-10:00 Saratov time)	Opening Ceremony
14:00-14:30 (8:00-8:30 Sweden time)	Laser spectroscopy applied to the environmental, ecological, agricultural, and food safety areas (<i>online</i>) Sune Svanberg , Lund University (Sweden)[PL- 1]
14:30-15:00 (8:30-9:00 Sweden time)	Applications of laser spectroscopy to meet some challenges in medicine (<i>online</i>) Katarina Svanberg , Lund University (Sweden)[PL- 2]
15:00-15:30 (9:00-9:30 Jena time)	Translational clinical Raman spectroscopy (<i>online</i>) Juergen Popp , Friedrich Schiller University Jena (Germany)[PL- 3]
15:30-16:00	Group photo & Break

Morning Saturday 1 April

Location: Hexie Ballroom 和谐厅	
Chairs: Qingming Luo , Hainan University (China); Lihong V. Wang , California Institute of Technology (USA)	
9:00-9:30 (20:00-20:30, Mar. 31, Boston time)	Shining light on brain function with neurophotonics (<i>online</i>) Anna Devor , Boston University (USA) [PL- 4]
9:30-10:00 (18:30-19:00, Mar. 31, San Diego time)	Competing neuronal and vascular interactions shape brain-wide arteriole dynamics (<i>online</i>) David Kleinfeld , University of California, San Diego (USA) [PL- 5]
10:00-10:30 (19:00-19:30, Mar. 31, LA time)	Photoacoustic tomography of molecular absorption from organelles to patients (<i>online</i>) Lihong V. Wang , California Institute of Technology (USA)..... [PL- 6]
10:30-11:00 (19:30-20:00, Mar. 31, LA time)	Award and Closing Ceremony

PIBM 2023 Topical Sessions

Afternoon Wednesday 29 March

Location: Hexie Ballroom 和谐厅	Location: Poster Areas
Chinese-Russian Workshop 1	Poster Session
<p><i>Chairs:</i> Valery V. Tuchin, Saratov State University (Russia); Dan Zhu, Huazhong University of Science and Technology (China)</p>	<p>16:00-18:00 Poster presenters must set up the posters in person before the Poster Session.</p>
<p>16:00-16:20 [CR- 1] (12:00-12:20, Saratov time) Recent advances in optical clearing of tissues: Towards in vivo applications (<i>online invited</i>) Valery Tuchin, Saratov State University (Russia)</p>	<p>The poster must not exceed the boundaries of the poster board and 80 cm (width) × 120 cm (height) is recommended. Each poster has been assigned a NEW number, re-ordered by the topics. This number is also pasted on the poster board. Please check the Poster List for the NEW number, and set up the poster on the exact board.</p>
<p>16:20-16:40 [CR- 2] Fluorescence lifetime imaging microscopy and its biomedical applications (<i>invited</i>) Junle Qu, Shenzhen University (China)</p>	<p>Presenters are required to be standing by their posters for the duration of this session to answer questions and further discuss their work with attendees.</p>
<p>16:40-17:00 [CR- 3] (12:40-13:00, Saratov time) Last achievements in combination of photonic tools and nanostructured materials for biomedical applications (<i>online invited</i>) Dmitry Gorin, Skolkovo Institute of Science and Technology (Russia)</p>	<p>No shows will be reported to Conference management and these papers will not be published in the Proceedings of SPIE. Posters will be shown during the whole conference days before 12:00 April 1. After this time, posters not removed will be discarded.</p>
<p>17:00-17:20 [CR- 4] A novel multi-functional OCT system for intraoperative diagnosis of brain tumor (<i>invited</i>) Ping Xue, Tsinghua University (China)</p>	
<p>17:20-17:40 [CR- 5] Dynamic scattering compensation for cellular resolution deep tissue optogenetics (<i>invited</i>) Ke Si, Zhejiang University (China)</p>	

PIBM 2023 Topical Sessions

Morning Thursday 30 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅
Translational Biophotonics 1	Analytical Biophotonics 1	Neurophotonics 1	Translational Biophotonics 2
<i>Chairs: Shaoqun Zeng, Huazhong University of Science and Technology (China); Hui Ma, Tsinghua University (China)</i>	<i>Chairs: Xingyu Jiang, Southern University of Science and Technology (China); Xiangwei Zhao, Southeast University (China)</i>	<i>Chairs: Ying Han, Xuanwu Hospital, Capital Medical University (China); Zhiyu Qian, Nanjing University of Aeronautics and Astronautics (China)</i>	<i>Chairs: Ling Fu, Huazhong University of Science and Technology (China); Qiang Zhao, Nanjing University of Posts and Telecommunications (China)</i>
8:30-9:00[TK- 1] (17:30-18:00, Mar 29, Seattle time) Advances in optical coherence tomography angiography (online keynote) Ruikang K Wang , University of Washington (USA)	8:30-8:50[AI- 1] Development of ultraportable flow cytometer and an all-glass microfluidic chip flow cytometer (invited) Qin Li , Beijing Institute of Technology (China)	8:30-8:50 [NI- 1] Mapping brain-wide excitatory projectome of primate prefrontal cortex at submicron resolution and comparison with diffusion tractography (invited) Zheng Wang , Peking University (China)	8:30-8:50 [TI- 1] Molecular imaging probes: opportunities and challenges from basic research to clinical translation (invited) Zhifei Dai , Peking University (China)
9:00-9:30[TK- 2] (18:00-18:30, Mar 29, Irvine Time) Frontier in optical coherence tomography: Doppler OCT, OCTA, and optical coherence elastography (online keynote) Zhongping Chen , University of California Irvine (USA)	8:50-9:10[AI- 2] Research of ultra-sensitive and high-specificity photonic CRISPR biomedical sensing chips (invited) Han Zhang , Shenzhen University (China)	8:50-9:10 [NI- 2] Mapping the neural circuit degeneration in the whole mouse brain (invited) Xiangning Li , Huazhong University of Science and Technology (China)	8:50-9:10 [TI- 2] Optical imaging guided Chinese herbal medicine for the intervention of traumatic brain injury (invited) Zhen Yuan , University of Macau (China)
	9:10-9:30[AI- 3] CRISPR-based next-generation Biomedical diagnosis platform (invited) Xiaoming Zhou , South China Normal University (China)	9:10-9:30 [NI- 3] Poly[N-(2-acetamidoethyl)acrylamide] Supramolecular Hydrogels for Mouse Brain Embedding and Expansion Microscopy (invited) Mingqiang Zhu , Huazhong University of Science and Technology (China)	9:10-9:30 [TI- 3] Development and clinical application of NIR-II fluorescence imaging techniques (invited) Zhenhua Hu , Institute of Automation, Chinese Academy of Sciences (China)

PIBM 2023 Topical Sessions

Morning Thursday 30 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅
Translational Biophotonics 1 9:30-10:00[TK- 3] (21:30-22:00, Mar 29, Amherst Time) Towards automatic wide-field OCT imaging of transplant kidney viability <i>(online keynote)</i> Yu Chen, University of Massachusetts, Amherst (USA)	Analytical Biophotonics 1 9:30-9:45 [AO- 1] CRISPR/Cas mediated highly sensitive and specific detection of nucleic acids biomarker Ru Huang , Hainan University (China)	Neurophotonics 1 9:30-10:00 Best Student Paper Award Candidates' Flash-Oral Presentations (Group N1)	Translational Biophotonics 2 9:30-9:45 [TO- 1] Tm³⁺-based luminescence nanoprobe for NIR-II bioimaging Yulei Chang , Haoran Chen, xianggui Kong, State Key Laboratory of Luminescence and Applications, Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences (China)
	9:45-10:00 [AO- 2] High density DNA reading with large throughput super resolution structure illumination microscopy Mengzhe Shen , Hao Zhang, Zeyu Su, Yang Liu, Joyce Huang, BGI-Research Shenzhen (China)		

PIBM 2023 Topical Sessions

Morning Thursday 30 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅
Translational Biophotonics 3	Analytical Biophotonics 2	Neurophotonics 2	Translational Biophotonics 4
<i>Chairs:</i> Ping Xue , Tsinghua University (China); Timon Cheng-Yi Liu , South China Normal University (China)	<i>Chairs:</i> Qin Li , Beijing Institute of Technology (China); Bifeng Liu , Huazhong University of Science and Technology (China)	<i>Chairs:</i> Jing Yuan , Huazhong University of Science and Technology (China); Biqin Dong , Fudan University (China)	<i>Chairs:</i> Yiming Li , Southern University of Science and Technology (China); Fabiao Yu , Hainan Medical University (China)
10:30-10:50 [TI- 4] Elastography of biological tissue and its application research (<i>invited</i>) Xingdao He , Nanchang Hangkong University (China)	10:30-10:50[AI- 4] Stretchable and biodegradable opto-electronic sensing based on liquid metal encapsulated in microfluidics (<i>invited</i>) Xingyu Jiang , Southern University of Science and Technology (China)	10:30-10:50 [NI- 4] Development and application of novel two-photon microscopy (<i>invited</i>) Wei Zheng , Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (China)	10:30-10:50..... [TI- 5] Recent advances in photodynamic anticancer therapy (<i>invited</i>) Bobo Gu , Shanghai Jiao Tong University (China)
10:50-11:05 [TO- 3] Deep learning-empowered highly compressive swept-source optical coherence tomography Yuye Ling , Shanghai Jiao Tong University (China)	10:50-11:10[AI- 5] Engineering surface plasmon for biomedical applications (<i>invited</i>) Xiangwei Zhao , Southeast University (China)	10:50-11:10 [NI- 5] Cross-modal analysis of individual whole brain assisted by PhotoAcoustic Tomography with Temporal Encoding Reconstruction (PATTERN) (<i>invited</i>) Cheng Ma , Tsinghua University (China)	10:50-11:10..... [TI- 6] Regulation of photochemical properties of organic phototherapeutic agents (<i>invited</i>) Minhuan Lan , Central South University (China)
11:05-11:40 Best Student Paper Award Candidates' Flash-Oral Presentations (Group T3)	11:10-11:25 [AO- 3] Superconducting nanowire single-photon detector: A rising light sensor for bio-fluorescence imaging and microscopy Kai Zou, Yun Meng, Xiaolong Hu , Tianjin University (China)	11:10-11:30 [NI- 6] Dynamic changes of morphology and function of prefrontal GABAergic interneurons in schizophrenia mouse model (<i>invited</i>) Bo Li , Fudan University (China)	11:10-11:25.....[TO- 7] Spectroscopic and photodynamic properties of the nitrosylruthenium isomeric complexes Hongfei Wang , Shanxi University (China)

PIBM 2023 Topical Sessions

Morning Thursday 30 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅
Translational Biophotonics 3	Analytical Biophotonics 2	Neurophotonics 2	Translational Biophotonics 4
	11:25-11:40 [AO- 4] Design and application of DNAzyme-based photoelectric biosensor in circulating miRNA detection Kui Zhang , Anhui University of Technology (China)	11:30-11:50 [NI- 7] Perspectives on multimodal neuroimaging techniques embracing MEG, EEG, fNIRS, and emerging functional photoacoustic tomography (invited) Shuai Na , Peking University (China)	11:25-11:40 [TO- 8] Manipulating the dynamics of excited states in organic materials to enhance phototheranostic performance Wenbo Hu , Northwestern Polytechnical University (China)
	11:40-12:10 Best Student Paper Award Candidates' Flash-Oral Presentations (Group A2)		11:40-11:55 [TO- 9] Multimodal collaborative tumor precision therapy based on phototherapy Siwen Li , China Pharmaceutical University (China)

PIBM 2023 Topical Sessions

Afternoon Thursday 30 March

Location: Heqian Room 和谦厅	Location: Hebian Room 和辩厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅	Location: Herong Room 和荣厅
Translational Biophotonics 5	Analytical Biophotonics 3	Neurophotonics 3	Translational Biophotonics 6	Chinese-Russian Workshop 2
<i>Chairs:</i> Xingdao He , Nanchang Hangkong University (China); Jian Ye , Shanghai Jiao Tong University (China)	<i>Chairs:</i> Jiong Ma , Fudan University (China); Zhen-Li Huang , Hainan University (China)	<i>Chairs:</i> Xunbin Wei , Peking University Health Science Center (China); Ke Si , Zhejiang University (China)	<i>Chairs:</i> Chengbo Liu , Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China); Sung-Liang Chen , Shanghai Jiao Tong University (China)	<i>Chairs:</i> Buhong Li , Hainan University (China); Mikhail Kirillin , Institute of Applied Physics RAS (Russia)
14:00-14:20 [TI- 7] Integrative grading of osteoarthritis by optical coherence tomography (invited) Timon Cheng-Yi Liu , South China Normal University (China)	14:00-14:20 [AI- 6] Super-resolution localization microscopy with large field of view: challenges and our recent advances (invited) Zhen-Li Huang , Hainan University (China)	14:00-14:20 [NI- 8] Manipulation of optical field through multimode fiber with wavefront shaping and its application for single neuron optogenetics at depths in tissue (invited) Puxiang Lai , Hong Kong Polytechnic University (China)	14:00-14:20 [TI- 8] Organ-PAM: Photoacoustic microscopy of whole-organ multiset vessel systems (invited) Lei Xi , Southern University of Science and Technology (China)	14:00-14:20 [CR- 6] Spatiotemporal detection of singlet oxygen luminescence: An update (invited) Buhong Li , Hainan University (China)
14:20-14:35 [TO- 5] Multispectral quantitative optoacoustic imaging for cancer research Jiao Li , Feng Gao, Tianjin University (China)	14:20-14:40 [AI- 7] Toward user-acknowledgeable structured illumination super-resolution microscopy (invited) Gang Wen , Yong Liang, Xin Jin, Linbo Wang, Hui Li , Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences (China)	14:20-14:40 [NI- 9] Towards all-optical interrogation of neural circuits in vivo (invited) Lingjie Kong , Tsinghua University (China)	14:20-14:40 [TI- 9] Photoacoustic imaging — from bench to bedside (invited) Li Lin , Zhicheng Shao, Jiali Chen, Zhejiang University (China)	14:20-14:40 [CR- 7] (10:20-10:40, Saratov time) Photostimulation of lymphatic clearance of toxins from the brain tissues (online invited) Oxana Semyachkina-Glushkovskaya , Saratov State University (Russia)

PIBM 2023 Topical Sessions

Afternoon Thursday 30 March

Location: Heqian Room 和谦厅	Location: Hebian Room 和辩厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅	Location: Herong Room 和荣厅
Translational Biophotonics 5	Analytical Biophotonics 3	Neurophotonics 3	Translational Biophotonics 6	Chinese-Russian Workshop 2
14:35-14:50 [TO- 10] Optical coherence tomography helps understand human placental villi morphological development with common obstetric complications Guangming Ni, Jie Mei, Yong Liu, University of Electronic Science and Technology of China (China)	14:40-15:00 [AI- 8] Upconversion super-resolution microscopy (invited) Qiuqiang Zhan, South China Normal University (China)	14:40-14:55 [NO- 1] A Comprehensive OCT Technique for the Measurement of Cerebral Blood Vessel Structure, Blood Flow Velocity, and Blood Transit Time Jianbo Tang, Southern University of Science and Technology (China)	14:40-14:55 [TO- 12] Microwave-induced thermoacoustic imaging for potential biomedical application Huan Qin, South China Normal University (China)	14:40-15:00 [CR- 8] The study of combination of phototherapy with immunotherapy (invited) Cuiping Yao, Xi'an Jiaotong University (China)
14:50-15:05 [TO- 11] Linking cutaneous vasculature with skin diseases using optical coherence tomography angiography Mengyang Liu, Medical University of Vienna (Austria)	15:00-15:15 [AO- 5] Photon-efficient volumetric imaging with light-sheet scanning fluorescence microscopy Karl Zhanghao, BGI-Research (China)		14:55-15:10 [TO- 13] Development of multi-spectral OR-PAM for simultaneous multi-parametric vascular imaging Chao Liu, Yachao Zhang, Lidai Wang, Fudan University (China)	15:00-15:20 [CR- 9] (11:00-11:20, Saratov time) Dual-wavelength fluorescence imaging for photodynamic therapy monitoring (online invited) Mikhail Kirillin, Institute of Applied Physics RAS (Russia)
15:05-15:20 [TO- 6] Bifocal 532/1064 nm alternately illuminated photoacoustic microscopy for capturing deep vascular morphology in human skin Zhiyang Wang, Sihua Yang, South China Normal University (China)				15:20-15:40 [CR- 20] (11:20-11:40, Saratov time) Optical and liquid biopsy of chronic heart failure based on Raman spectroscopy (online invited) Ivan Bratchenko, Samara National Research University (Russia)

PIBM 2023 Topical Sessions

Afternoon Thursday 30 March

Location: Heqian Room 和谦厅	Location: Hebian Room 和辩厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅	Location: Herong Room 和荣厅
Translational Biophotonics 7	Analytical Biophotonics 4	Neurophotonics 4	Immunophotonics 1	Chinese-Russian Workshop 3
<i>Chairs: Zhen Yuan</i> , University of Macau (China); Zhenhua Hu , Institute of Automation, Chinese Academy of Sciences (China)	<i>Chairs: Hui Li</i> , Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences (China); Qiuqiang Zhan , South China Normal University (China)	<i>Chairs: Pengcheng Li</i> , Huazhong University of Science and Technology (China); Cheng Ma , Tsinghua University (China)	<i>Chairs: Zhihong Zhang</i> , Huazhong University of Science and Technology (China); Minhuan Lan , Central South University (China)	<i>Chairs: Yueqing Gu</i> , China Pharmaceutical University (China); Oxana Semyachkina-Glushkovskaya , Saratov State University (Russia)
16:00-16:20 [TI- 10] A novel optical technology for drug-targeted delivery and real-time visualization of lung cancer therapy (<i>invited</i>) <i>Zhenkai Wang, Fabiao Yu</i> , Hainan Medical University (China)	16:00-16:20 [AI- 9] Composite super-resolution microscopy based on fluorescence fluctuation analysis (<i>invited</i>) Jiong Ma , Fudan University (China)	16:00-16:20 [NI- 10] Recent progresses on specific control of calcium channels by femtosecond laser (<i>invited</i>) Hao He , Shanghai Jiao Tong University (China)	16:00-16:20 [II- 1] In vivo quantitative photoacoustic evaluation of the liver and kidney pathology in tyrosinemia (<i>invited</i>) Liming Nie , Guangdong Academy of Medical Sciences (China)	16:00-16:20 [CR- 10] A cross-correlation methodology for in vivo pharmacokinetic study by the trans-scale fluorescent system (<i>online invited</i>) Yueqing Gu , China Pharmaceutical University (China)
16:20-16:40 [TI- 11] NIR-II fluorescence imaging-guided surgery (<i>invited</i>) Jun Qian , Zhejiang University (China)	16:20-16:40 [AI- 10] Field dependent deep learning enables high-throughput whole-cell 3D super-resolution imaging (<i>invited</i>) Yiming Li , Southern University of Science and Technology (China)	16:20-16:40 [NI- 11] Deep learning-assisted multiphoton Calcium imaging and data processing (<i>invited</i>) Biqin Dong , Fudan University (China)	16:20-16:35 [IO- 1] Field-regulated dynamically enhanced photoacoustic molecular imaging with stimulus-responsive nanoprobe Yujiao Shi , South China Normal University (China)	16:20-16:40 [CR- 11] (12:20-12:40, Saratov time) Influence of dynamic properties of SAASOTi biphotocromic proteins on its photophysical and photochemical properties (<i>online invited</i>) Alexander Savitsky , Federal Research Center "Fundamentals of Biotechnology" of the Russian Academy of Sciences (Russia)

PIBM 2023 Topical Sessions

Afternoon Thursday 30 March

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Translational Biophotonics 7	Analytical Biophotonics 4	Neurophotonics 4	Immunophotonics 1	Chinese-Russian Workshop 3
16:40-16:55[TO- 14] Perfecting and extending the near-infrared imaging window Zhe Feng , Jun Qian, Zhejiang University (China)	16:40-17:00 [AI- 11] Enhancing live-cell super-resolution fluorescence microscopy with sparse deconvolution (<i>invited</i>) Weisong Zhao, Haoyu Li , Harbin Institute of Technology (China)	16:40-16:55 [NO- 2] Brain-wide functional projections of individual neurons using genetic calcium probe Shanshan Ke, Hui Gong, Wei Zhou , Huazhong University of Science and Technology (China)	16:35-16:50 [IO- 2] Photoacoustic image-guided biomimetic nanoparticles targeting rheumatoid arthritis Chengbo Liu, Jingqin Chen , Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China)	16:40-17:00 [CR- 12] Semiconducting polymer nanoprobe for optical imaging (<i>invited</i>) Changfeng Wu , Southern University of Science and Technology (China)
16:55-17:10[TO- 15] NIR-II multifocal structured illumination microscopy for deep imaging Feng Liang , Cai Songtao, Zhang Jie, Lou Kai, Yang Zhigang, Qu Junle, Wen Weijia, The Hong Kong University of Science and Technology (Guangzhou) (China)	17:00-17:15 [AO- 6] Enhancing image resolution of confocal fluorescence microscopy with deep learning Boyi Huang, Jia Li , Bowen Yao, Zhigang Yang, Edmund Y. Lam, Jia Zhang, Wei Yan, Junle Qu, Shenzhen University (China)	16:55-17:10 [NO- 3] Representation of learning substrates in primate posterior parietal cortex Yang Zhou , Peking University (China)	16:50-17:05 [IO- 3] In vivo photoacoustic imaging of the delivery process of nano-adjuvants Meng Fan, Chen Jiarui, He Fengbing, Zhang Jian , Guangzhou Medical University (China)	17:00-17:20 [CR- 13] (13:00-13:20, Saratov time) Optical investigation of the effect of nanoparticles on blood microrheologic parameters (<i>online invited</i>) Andrei Lugovtsov , Lomonosov Moscow State University (Russia)
			17:05-17:40 Best Student Paper Award Candidates' Flash-Oral Presentations (Group I1)	17:20-17:40 [CR- 14] Optical detection and regulation of mitochondrion (<i>invited</i>) Lin Li , Xiamen University (China)

PIBM 2023 Topical Sessions

Morning Friday 31 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辩厅	Location: Heyi Room 和怡厅	Location: Hexun Room 和逊厅	Location: Heqian Room 和谦厅
Immunophotonics 2	Analytical Biophotonics 5	Translational Biophotonics 8	Translational Biophotonics 9	Translational Biophotonics 10
<i>Chairs:</i> Feifan Zhou , Hainan University (China); Liming Nie , Guangdong Academy of Medical Sciences (China)	<i>Chairs:</i> Zhifei Dai , Peking University (China); Lin Li , Xiamen University (China)	<i>Chairs:</i> Wei Zheng , Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (China); Jun Qian , Zhejiang University (China)	<i>Chairs:</i> Lei Xi , Southern University of Science and Technology (China); Li Lin , Zhejiang University (China)	<i>Chairs:</i> Hao He , Shanghai Jiao Tong University (China); Xueli Chen , Xidian University (China)
8:30-9:00 [IK- 1] (19:30-20:00, Mar 30, Oklahoma time) Cancer photo-immunotherapy: from bench to bedside (<i>online keynote</i>) Wei Chen , The University of Oklahoma (United States)	8:30-8:50 [AI- 12] Long-lived emissive probes for time-resolved luminescence biosensing and bioimaging (<i>invited</i>) Qiang Zhao , Nanjing University of Posts and Telecommunications (China)	8:30-8:50 [TI- 12] Deep-tissue multiphoton microscopy excited at the 1700-nm and 2200-nm window (<i>invited</i>) Ke Wang , Shenzhen University (China)	8:30-8:50 [TI- 13] High speed photoacoustic imaging (<i>invited</i>) Chengbo Liu , Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China)	8:30-8:50 [TI- 15] In vivo surface-enhanced transmission Raman spectroscopy: Toward photosafe non-invasive detection of deep-seated lesions (<i>invited</i>) Jian Ye , Shanghai Jiao Tong University (China)
9:00-9:30 [TK- 4] (18:00-18:30, Mar 30, Vancouver Time) In vivo multiphoton microscopy and multiphoton absorption based photothermolysis therapy (<i>online keynote</i>) Haishan Zeng , University of British Columbia (Canada)	8:50-9:10 [AI- 13] Development of novel small-molecule organic fluorescent probes and their applications in 2D and 3D super-resolution microscopy (<i>invited</i>) Yuhui Zhang , Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)	8:50-9:05 [TO- 17] Intravital labeling and three-photon imaging of lipids in fatty liver and atherosclerotic plaques Shaowei Wang , Ming Lei, Xi'an Jiaotong University (China)	8:50-9:10 [TI- 14] Physics-driven deep photoacoustic tomography with incomplete projections (<i>invited</i>) Chao Tian , University of Science and Technology of China (China)	8:50-9:10 [TI- 16] AI-assisted stimulated Raman histology for rapid diagnosis of unprocessed human biopsy tissues (<i>invited</i>) Minbiao Ji , Fudan University (China)

PIBM 2023 Topical Sessions

Morning Friday 31 March

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Immunophotonics 2	Analytical Biophotonics 5	Translational Biophotonics 8	Translational Biophotonics 9	Translational Biophotonics 10
	9:10-9:25.....[AO- 7] The development of highly photostable organic fluorescent probes for STED super-resolution imaging Chenguang Wang , Jilin University (China)	9:05-9:20[TO- 18] Rapid optical clearing and adaptive optics assisted two-photon microscopy for instant 3D histological mapping Hui Li , Lina Liu, Yufeng Gao, Wei Zheng, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China)	9:10-9:25..... [TO- 21] The recovery of elevational resolution and SNR of full-ring transducer array-based PACT using the SAFT Rongkang Gao , Chengbo Liu, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China)	9:10-9:30 [TI- 17] Ultrafast hyperspectral stimulated Raman excited fluorescence microscopy (invited) Hanqing Xiong , Peking University (China)
9:30-9:50 [II- 2] (21:30-21:50, Mar 30, Toronto time) Porphyrin nanoemulsion for antimicrobial photodynamic therapy: effective photosensitizer delivery to inactivate biofilm-related infections (online invited) Juan Chen , Hilde Harb Buzzá, Fernanda Alves, Vanderlei S. Bagnato, Cristina Kurachi, Gang Zheng, Princess Margaret Cancer Centre, University Health Network, Toronto (Canada)	9:25-9:40.....[AO- 8] Optical engineering reporters for RNA imaging in vivo Fu Wang , Xidian University (China)	9:20-9:35[TO- 19] Zebrafish vasculature development and drug response studied by a high throughput light-sheet flow imaging system Guang Yang , Linbo Wang, Xin Jin, Yong Liang, Hui Li, Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences (China)	9:25-9:40..... [TO- 22] Fiber-laser Ultrasound Sensor Array for Photoacoustic Tomography Xue Bai , Yizhi Liang, Long Jin, Jinan University (China)	9:30-9:45[TO- 24] Raman spectra-based structural classification analysis of flavone and isoflavone Qi Zeng , Li Li, Yangyao Peng, Jiaojiao Zhang, Xiaojia Hu, Dongjie Zhang, Xueli Chen, Xidian University (China)

PIBM 2023 Topical Sessions

Morning Friday 31 March

<i>Location: Hexie Ballroom 和谐厅</i>	<i>Location: Hebian Room 和辩厅</i>	<i>Location: Heyi Room 和怡厅</i>	<i>Location: Hexun Room 和逊厅</i>	<i>Location: Heqian Room 和谦厅</i>
Immunophotonics 2	Analytical Biophotonics 5	Translational Biophotonics 8	Translational Biophotonics 9	Translational Biophotonics 10
9:50-10:05 [IO- 6] Versatile aggregation-induced emission luminogens for NIR-II imaging-mediated synergistic photo-immunotherapy against cancer Miao Wang , Dingyuan Yan, Dong Wang, Feifan Zhou, Benzong Tang, Hainan University (China)	9:40-9:55..... [AO- 9] Stimulus responsive chemistry in the diagnosis and treatment of mitochondrial diseases Peng Bo , Lin Li, Hua Bai, Northwestern Polytechnical University (China)	9:35-9:50 [TO- 20] A new perspective on cellular metabolism through two-photon excitation of tryptophan autofluorescence lifetime imaging Ting Wu , Jiuling Liao, Feng Xiang, Hui Li, Wei Zheng, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China) 9:50-10:05 [TO- 4] Depth-dependent dispersion compensation for optical coherence tomography Xiupin Wu , Shanghai University of Medicine & Health Sciences (China)	9:40-9:55 [TO- 23] Transparent ultrasound transducers for centimeter-scale field-of-view and fast photoacoustic microvascular imaging Zhongwen Cheng , Lvming Zeng, Xuanrong Ji, Guangdong University of Technology (China)	9:45-10:00 [TO- 25] Raman spectroscopy and imaging based pathohistology and cytobiology studies Shuang Wang , Northwest University (China)

PIBM 2023 Topical Sessions

Morning Friday 31 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Hexun Room 和逊厅	Location: Heqian Room 和谦厅
Immunophotonics 3	Analytical Biophotonics 6	Translational Biophotonics 11	Translational Biophotonics 12
<i>Chairs:</i> Liwei Liu , Shenzhen University (China); Xiangning Li , Huazhong University of Science and Technology (China)	<i>Chairs:</i> Zheng Wang , Peking University (China); Sihua Yang , South China Normal University (China)	<i>Chairs:</i> Chao Tian , University of Science and Technology of China (China); Bo Li , Fudan University (China)	<i>Chairs:</i> Minbiao Ji , Fudan University (China); Ke Wang , Shenzhen University (China)
10:30-10:50 [II- 3] Photobiomodulation of Alzheimer disease in vitro & in vivo models guided by optical imaging (invited) Junle Qu , Shenzhen University (China)	10:30-10:50 [AI- 14] Hydrogen production from liquid seawater using femtosecond laser (invited) Xiangdong Cao , Shandong University (China)	10:30-10:50 [TI- 18] Photoacoustic microscopy: Technology development and applications (invited) Sung-Liang Chen , Shanghai Jiao Tong University (China)	10:30-11:00 Best Student Paper Award Candidates' Flash-Oral Presentations (Group T12)
10:50-11:10 [II- 4] Light treatment of Alzheimer's disease (invited) Xunbin Wei , Peking University Health Science Center (China)	10:50-11:05 [AO- 11] Optical tweezers-actuated bio-micromotor/robot for single cell manipulation/regulation Hongbao Xin , Jinan University (China)	10:50-11:05 [TO- 26] High-penetration photoacoustic molecular endoscopy: Technical advancements and prospects Bo Wang , Jinshen Jiang, Jiaying Xiao, Central South University (China)	11:00-11:15 [TO- 30] Stimulated Raman scattering imaging unravels the essential role of lipid droplet in cancer development and progression Shuhua Yue , Beihang University (China)
11:10-11:30 [II- 5] Ultrasensitive detection of blood Aβ and phosphorylated tau in Alzheimer's disease (invited) Haiming Luo , Huazhong University of Science and Technology (China)	11:05-11:20 [AO- 12] Characterization of human sperm motion using optical trap and multi-mode imaging Zhensheng Zhong , Zhiguo Zhang, Jinhua Zhou, Anhui Medical University (China)	11:05-11:20 [TO- 27] Optical-resolution photoacoustic endoscopy on in vivo rat rectum tumor Riqiang Lin , Shengmiao Lv, Xiatian Wang, Kwok Ho Lam, Xiaojing Gong, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (China)	11:15-11:30 [TO- 31] Raman-LIBS from tumor tissue imaging to cells detection Qingyu Lin , Sichuan University (China)

PIBM 2023 Topical Sessions

Morning Friday 31 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Hexun Room 和逊厅	Location: Heqian Room 和谦厅
Immunophotonics 3	Analytical Biophotonics 6	Translational Biophotonics 11	Translational Biophotonics 12
11:30-11:45[IO- 4] Gamma frequency light flicker regulates amyloid precursor protein trafficking for reducing β-amyloid load in Alzheimer's disease model Shen Qi , South China Normal University (China)	11:20-11:35 [AO- 13] Off-axis optical levitation and transverse spinning of metallic microparticles Yansheng Liang , Ming Lei, Xi'an Jiaotong University (China)	11:20-11:35 [TO- 28] The in vivo study of intravascular photoacoustic imaging for atherosclerotic plaque diagnosis Zhihua Xie , Xiaojing Gong, Shenzhen Institutes of Advanced Technology, CAS (China)	11:30-11:45[TO- 32] Mueller matrix polarimetry based quantification of fibrosis in hepatocellular carcinoma tissues Yue Yao , Tsinghua University (China)
11:45-12:00[IO- 5] Light stimulation for neurodegenerative disorder treatment: exploring the effect of transcranial photobiomodulation and gamma entrainment by advanced optical imaging in Alzheimer's disease model mice. Hao Xu , Shenzhen University (China)	11:35-11:50 [AO- 14] Biological particles manipulation and biosensing enhancement based on optothermal tweezers Jiajie Chen , Shenzhen University (China)	11:35-11:50 [TO- 29] Photoacoustic fiberscopes for wearable and endoscopic imaging Yizhi Liang , Long Jin, Jinan University (China)	11:45-12:00[TO- 33] Histopathologic diagnosis of breast cancer based on heterogenous breast specimens via stimulated Raman scattering microscopy and multi-instance learning Yifan Yang , Zhijie Liu, Jing Huang , Xiangjie Sun, Jianpeng Ao, Bin Zheng, Wanyuan Chen, Zhiming Shao, Hao Hu, Yinlong Yang, Minbiao Ji, South China Normal University (China)

PIBM 2023 Topical Sessions

Afternoon Friday 31 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辩厅	Location: Hexun Room 和逊厅	Location: Heqian Room 和谦厅
Chinese-Russian Workshop 4	Analytical Biophotonics 7	Best Student Paper Award Final	Translational Biophotonics 13
<i>Chairs: Alexander Priezzhev, Lomonosov Moscow State University (Russia); Junle Qu, Shenzhen University (China)</i>	<i>Chairs: Tongsheng Chen, South China Normal University (China); Yuhui Zhang, Huazhong University of Science and Technology (China)</i>	<i>Chairs: Award Evaluation Committee</i>	<i>Chairs: Haiming Luo, Huazhong University of Science and Technology (China); Haoyu Li, Harbin Institute of Technology (China)</i>
14:00-14:20 [CR- 15] (10:00-10:20, Saratov time) Analytical optical study of blood microrheologic alterations at socially important diseases (online invited) Alexander Priezzhev, Lomonosov Moscow State University (Russia)	14:00-14:15 [AO- 15] High-throughput multiple optical phenotyping to reveal the genetic architecture of crop drought tolerance Wanneng Yang, Huazhong Agricultural University (China)	14:00-17:30 Winners from Best Student Paper Award Candidates' Flash-Oral Presentations & Poster Session	14:00-14:15 [TO- 34] Label-free, non-contact, widefield, ultrafast quantitative imaging of oxy-hemoglobin, deoxy-hemoglobin, water, and lipids in tissue using Spatial Frequency Domain Imaging (SFDI) Yanyu Zhao, Beihang University (China)
14:20-14:40 [CR- 16] Volumetric chemical imaging based on Raman scattering effect and projection tomography strategy (invited) Xueli Chen, Nan Wang, Xidian University (China)	14:15-14:30 [AO- 16] Highly selective and sensitive optosensing of glutathione based on energy level strongly correlated upconversion nanoprobe Xiaomin Liu, Jilin university (China)		14:15-14:30 [TO- 35] Hand-held free-scan 3D photoacoustic tomography with global positioning system Daohuai Jiang, Fei Gao, ShanghaiTech University (China)
14:40-15:00 [CR- 17] (10:40-11:00, Saratov time) Terahertz dielectric spectroscopy and super-resolution imaging of brain tumors (online invited) Kirill Zaytsev, Prokhorov General Physics Institute of RAS (Russia)	14:30-14:45 [AO- 17] Unraveling molecular dynamics at nanoscale interface by single-particle plasmon sensors (NanoSPR) Weixiang Ye, Hainan University (China)		14:30-14:45 [TO- 36] Wide-angle single-pixel camera for endoscopic imaging Zhong Ji, Xidian university (China)

PIBM 2023 Topical Sessions

Afternoon Friday 31 March

Location: Hexie Ballroom 和谐厅	Location: Hebian Room 和辨厅	Location: Hexun Room 和逊厅	Location: Heqian Room 和谦厅
Chinese-Russian Workshop 4	Analytical Biophotonics 7	Best Student Paper Award Final	Translational Biophotonics 13
15:00-15:20 [CR- 18] Label-free multimodal microscopic imaging technology (invited) Liwei Liu, Shenzhen University (China)	14:45-15:00[AO- 18] Long-term in-situ fluorescence imaging of lipid droplets during cell ferroptosis process enabled by fluorescent probe Guannan Liu, Jilin University (China)		14:45-15:00 [TO- 37] Spectrum-shaped Si-perovskite hybrid photodetectors for hyperspectral bio-imaging Yujin Liu, Xueli Chen, Xidian University (China)
15:20-15:40 [CR- 19] (11:20-11:40, Saratov time) Artificial intelligence applications in laser spectroscopy data analysis (online invited) Yury Kistenev, Alexey Borisov, Vladimir Prishepa, Viktor Skiba, Igor Lednev, Tomsk State University (Russia)	15:00-15:15[AO- 19] SiPM: alternative detector for fluorescence macroscopic and microscopic imaging Tianyu Yan, Xueli Chen, Xidian University (China)		15:00-15:15 [TO- 38] Tri-modality intrauterine endoscopy Jinke Zhang, Qingrong Xia, Meng Du, Zhiyi Chen, Xiaojing Gong, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (China)
	15:15-15:30[AO- 20] High-fidelity quantitative differential phase contrast deconvolution using dark-field sparse prior (online) Shuhe Zhang, Tao Peng, Zeyu Ke, Meng Shao, Tos Berendschot, Jinhua Zhou, Maastricht University		15:15-15:30 [TO- 39] Development of cold laser atherectomy system Jianan Li, Xi'an Institute of Optics and Precision Mechanics, CAS (China)

PIBM 2023 Poster List

Neurophotonics

[NP- 1] PIBM2022-0816-5

Precision Vibratome for High-Speed Ultrathin Biotissue Cutting and Organ-Wide Imaging

Yafeng Li, Zhangheng Ding, Qishuo Shi, Lei Deng, Guoqing Fan, Qi Zhang, Hui Gong, Anan Li, Jing Yuan, Jianwei Chen, Huazhong University of Science and Technology (China)

[NP- 2] PIBM2022-0909-26

The ability of pH-sensitive APT magnetic resonance imaging to reflect acute ischemic cerebral infarction

Han Li, Chenyang Pei, Jianzhong Yin, The First Central Clinical College of Tianjin Medical University (China)

[NP- 3] PIBM2022-0909-8

Tissue optical clearing assisted through-skull targeted photothrombotic ischemic stroke modeling and drug evaluation in mice

Zhengwu Hu, Dongyu Li, Lu Deng, Jingtian Zhu, Tingting Yu, Dan Zhu, Huazhong University of Science and Technology (China)

[NP- 4] PIBM2022-0910-5

CES reduces the prefrontal cortical blood oxygen concentrations of healthy people: a near-infrared functional study

Liang Cuijuan, Huang Shijun, Li Weilan, Chen Li, Long Yaobin, Jinxuan Bai, the Second Affiliated Hospital, Guangxi Medical University (China)

[NP- 5] PIBM2022-0205-6

Skull transmittance of transcranial red and near-infrared light in mouse models

Xi Li, Zhenping Xu, Miao Wang, Feifan Zhou, Hainan University (China)

[NP- 6] PIBM2022-0205-7

Effects of 40 Hz light flicker stimulation on spatial working memory in rats and investigation of its neural mechanism

Longlong Wang, Shuangyan Li, Runze LI, Guizhi Xu, Hebei University of Technology (China)

[NP- 7] PIBM2022-0820-17

Autocorrelation Analysis-based OCT Velocimetry for Axial Blood Flow Velocity Imaging of the Cerebral Capillary Network

Xiangsen GUO, Jianbo TANG, Southern University of Science and Technology (China)

[NP- 8] PIBM2022-0202-4

Mechanism of neurovascular coupling in pseudorabies virus encephalitis based on multi-modal imaging

Shuting Ling, Guosong Wang, Qingliang Zhao, Xiamen University (China)

[NP- 9] PIBM2022-0210-1

Genotype-specific neuron census reveals brain cytoarchitecture in mice

Mengting Zhao, Lingyi Cai, Jiandong Zhou, Shengda Bao, Chuhao Dou, Xiangning Li, Qingming Luo, Hui Gong, Anan Li, Huazhong University of Science and Technology (China)

[NP- 10] PIBM2022-0217-1

Data-driven Morphological Feature Perception of Single Neuron with Graph Neural Network

Tianfang Zhu, Anan Li, Huazhong University of Science and Technology (China)

PIBM 2023 Poster List

[NP- 11] PIBM2022-0924-1

Research progress in non-image-forming (NIF) visual functions

Changpeng Ai, Chengjie Luo, **Shengnan Wu**, Beijing Institute of Technology (China)

[NP- 12] PIBM2022-0819-20

Orthogonal line scan microscopy with symmetry lateral resolution

Dan Shen, Jing Yuan, Qingming Luo, Huazhong University of Science and Technology (China)

[NP- 13] PIBM2022-0819-29

A highly efficient imaging platform based on rapid microsection for whole-body mouse

Yunfei Zhang, Hui Gong, Xiaoquan Yang, Huazhong University of Science and Technology (China)

[NP- 14] PIBM2022-0819-38

Evaluation of pilot stress based on functional near-infrared techniques

Lu Zhou, Yixuan Xu, Bing Qin, Biao Wu, Qiaoqiao Zhu, Weitao Li, Zhiyu Qian, Nanjing University of Aeronautics and Astronautics (China)

[NP- 15] PIBM2022-0819-46

Study on the effect of sleep modulation by transcutaneous electrical nerve stimulation based on low-high frequency coupling

Yixuan Xu, Zhiyu Qian, Lu Zhou, Nanjing University of Aeronautics and Astronautics (China)

[NP- 16] PIBM2022-0820-13

Three-dimensional mapping reveals heterochronic development of the neuromuscular system in postnatal skeletal muscles

Jianyi Xu, Jingtian Zhu, Yusha Li, Yingtao Yao, Dongyu Li, Tingting Yu, Dan Zhu, Huazhong University of Science and Technology (China)

[NP- 17] PIBM2022-0820-16

A pipeline for the three-dimensional recognition and analysis of microvascular obstruction in ischaemic stroke

Dan Zhu, **Yusha Li**, Jianyi Xu, Tingting Yu, Jingtian Zhu, Ang Xuan, Xiaomei Liu, Pingfu Wang, Dongyu Li, Huazhong University of Science and Technology (China)

[NP- 18] PIBM2022-0820-23

Brain-Wide Dissection of Pyramidal Tract Circuits in the Prefrontal cortex

Ayizuohere Tudi, Huazhong University of Science and Technology (China)

[NP- 19] PIBM2022-0820-42

An analog staining strategy to H&E histology for rapid fluorescence imaging of large-volume tissues

Jialin Shi, Xiangning Li, Huazhong University of Science and Technology (China)

[NP- 20] PIBM2022-0820-9

Arbitrary ROI fast two-photon fluorescence microscopic imaging by Polygon-Galvo-Galvo scanner

Wang Wei, Wen Bao, Yingshun Xu, Suzhou YBL Opto-electronics Instruments Co., Ltd (China)

PIBM 2023 Poster List

[NP- 21] PIBM2022-0908-10

SM-Unet: Swin MLP-based and Unet-like Network for Fast Biomedical Image Segmentation

Guoping Xu, Zhang Xuan, Wentao Liao, Shangbin Chen, Xinglong Wu, Wuhan Institute of Technology (China)

[NP- 22] PIBM2022-0908-12

Analysis of Resting-state functional connectivity by multimodal optical imaging

Wenting Zhu, Huazhong University of Science and Technology (China)

[NP- 23] PIBM2022-0908-7

Ultrafast and Accurate Analysis of Whole Mouse Brain Vascular Network

Xinglong Wu, Jiong Shao, Yan Jiang, Hanshuo Xing, Peiyan Wu, Guoping Xu, Shangbin Chen, Wuhan Institute of Technology (China)

[NP- 24] PIBM2022-0909-17

Rapid volumetric imaging with Bessel-droplet two-photon microscopy

Yongqiang Chen, Liwei Liu, Shenzhen University (China)

[NP- 25] PIBM2022-0909-18

Construction of a three-dimensional macaque brain reference atlas with single-cell resolution in stereotaxic coordinates

Yue Luo, Huazhong University of Science and Technology (China)

[NP- 26] PIBM2022-0909-19

Brain region recognition in micro-optical images based on feature database retrieval

Xin Liu, Huazhong University of Science and Technology (China)

[NP- 27] PIBM2022-0909-23

Deep learning-based large-scale named entity recognition and projective relation extraction for anatomical region of mouse brain

Xiaokang Chai, Anan Li, Huazhong University of Science and Technology (China)

[NP- 28] PIBM2022-0909-24

Medical image segmentation with overcomplete information

Xu Guoping, Liao Wentao, Zhang xuan, Wang xiaxia, Wu Xinglong, Leng Suesong, Wuhan Institute of Technology (China)

[NP- 29] PIBM2022-0909-25

A novel strategy for learning Activation function on biomedical image segmentation

Xu Guoping, Zhang Xuan, Liao Wentao, Wang Xiaxia, Leng Xuesong, Wu Xinglong, Wuhan Institute of Technology (China)

[NP- 30] PIBM2022-0909-27

Whole-brain profiling reveals progressive amyloidosis and vascular lesions in Alzheimer's disease mouse model

Ben Long, Hainan University (China)

[NP- 31] PIBM2022-0909-32

Gender dimorphism in adrenal medulla nerve fiber changes revealed by optical imaging during aging process

Jing Jin, Xiangning Li, Huazhong University of Science and Technology (China)

PIBM 2023 Poster List

[NP- 32] PIBM2022-0909-42

Spatial Positioning based Neuronal Dendrites Morphology Analysis

Jiandong Zhou, Anan Li, Huazhong University of Science and Technology (China)

[NP- 33] PIBM2022-0909-43

High-resolution imaging of deep brain tissue of living mice combined with generative adversarial networks

Chenggui Luo, Liwei Liu, Shenzhen university (China)

[NP- 34] PIBM2022-0909-46

A synapse detection method based on image segmentation algorithm in whole mice brain

Shukang Luo, Anan Li, Huazhong University of Science and Technology (China)

[NP- 35] PIBM2022-0909-47

3D visualization and detection of glomerulus in whole mouse kidney

Yuxin Li, Jia Cao, Anan Li, Xi'an University of Technology (China)

[NP- 36] PIBM2022-0909-6

Study on the digital analysis method of A β plaques in mice based on optical microscopic images

Guixuan Gong, Huazhong University of Science and Technology (China)

[NP- 37] PIBM2022-0910-1

Functional analysis of the basal forebrain based on whole-brain optical imaging and optogenetics

Zhaoyang Meng, Huading Wang, Xiangning Li, Huazhong University of Science and Technology (China)

[NP- 38] PIBM2022-0910-21

Laser speckle auto-inverse covariance imaging for quantitative estimation of blood flow

Jiachi Hong, Huazhong University of Science and Technology (China)

[NP- 39] PIBM2022-0910-25

Ultrabright Ratiometric Raman-guided Epilepsy Surgery by Intraoperatively Visualizing Proinflammatory Microglia

Wang Cong, Fudan University (China)

[NP- 40] PIBM2022-0910-29

Super-resolution Network Using Adaptive Region Attention for Dense Neuron Segmentation

Shijie Liu, Tingwei Quan, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)

[NP- 41] PIBM2022-0911-1

Plastic embedding for high-resolution imaging of multiple fluorescent labelling intact biological tissues for simultaneous acquisition of neural circuits

Miao Ren, Xiang Ning Li, Hui Gong, Qing Ming Luo, Hainan University (China)

[NP- 42] PIBM2022-0913-2

Subiculum-medial mammillary Circuit for the Retrieval of spatial memory

Zhang Jianping, Yao Mei, Gong Hui, Li Xiangning, Luo Qingming, Hainan University (China)

PIBM 2023 Poster List

[NP- 43] PIBM2022-0913-4

Semantic segmentation of neuron skeletons using Point Cloud based Deep Learning

Jing Qi, Yi Geng, Lanlan Li, Jingpeng Wu, Fuzhou University (China)

[NP- 44] PIBM2022-0920-3

Long-term imaging of the myenteric plexus and blood vessels of stomach in vivo through a multifunctional intravital window

Jiang Longjie, Yang Jie, Huang Jiangfeng, Ling Fu, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)

[NP- 45] PIBM2022-1020-1

Brain function reorganization in the motor cortex during upper limb tasks after stroke

Zhang YiZheng, Foshan University (China)

[NP- 46] PIBM2022-1025-1

An interpretable Richardson-Lucy model-driven deconvolution framework

Xiaojun Zhao, Guangcai Liu, Rui Jin, Hui Gong, Qingming Luo, Xiaoquan Yang, Huazhong University of Science and Technology (China)

[NP- 47] PIBM2022-0102-1

A temporal regression method for removing hemodynamic artifacts in wide-field fluorescent imaging

Jing Li, Weihong Lin, Theodore Schwartz, Hongtao Ma, The First Hospital of Jilin University (China)

[NP- 48] PIBM2022-0204-2

Four-color optical sectioning imaging with line-illumination modulation microscopy

Jing Zhang, Shirui Guo, Dongjian Cao, jie Yang, Hui Gong, Qingming Luo, Jing Yuan, Huazhong University of Science and Technology (China)

[NP- 49] PIBM2022-0206-2

Whole-brain dissection of the connectivity atlas of retrosplenial area

Li Yuxiao, Hainan University (China)

[NP- 50] PIBM2022-0206-7

Multi-mode imaging based on frequency-division multiplexing technology of digital array orthogonal locked phase amplifier

Liangwei Meng, Huazhong University of Science and Technology (China)

[NP- 51] PIBM2022-0206-8

Neural mechanisms of sensorimotor associative learning in primate posterior parietal cortex

Yang Zhou, **Ziang Liu**, Peking University (China)

[NP- 52] PIBM2023-0302-2

Insights into brain perceptions of the different taste qualities and hedonic valence of food via scalp electroencephalogram

Tianyi Yang, Peng Zhang, Zhiyu Qian, Nanjing University of Aeronautics and Astronautics (China)

PIBM 2023 Poster List

[NP- 53] PIBM2023-0310-2

Tracers Progress for PET Imaging of Glial-relative Disease

Liu Xiuping, Liu Tianrui, XieTianwu, Guangdong Jiangmen Chinese Medicine College (China)

[NP- 54] PIBM2023-0313-1

Study on EEG characteristics of visually induced motion sickness

Bing Qin, Qiaoqiao Zhu, Zhiyu Qian, Nanjing University of Aeronautics and Astronautics (China)

[NP- 55] PIBM2023-0316-1

Mechanisms of phototherapy combined with optogenetic modulation of learning memory and BDNF/TrkB levels in sleep deprived mice

Chen Hongli, Li Xuechun, Jiang Zhongdi, Li Yingxin, Liu Yi, Ming Dong, Tiangong University (China)

Immunophotonics

[IP- 1] PIBM2022-0819-39

Novel FeWO_x-based Nanozymes with Magnetocaloric Properties for Synergistic Antimicrobial Therapy

Ruocan Liu, Yundi Wu, Chaoyi Lyu, Dongna Huang and Xilong Wu, Hainan University (China)

[IP- 2] PIBM2022-0909-1

Anti-Cancer Vaccination with Immunogenic Micelles that Capture and Release Pristine CD8+ T-Cell Epitopes and Adjuvants

He Ren, Jiexin Li, Yumiao Zhang, Tianjin University (China)

[IP- 3] PIBM2022-0202-5

High throughput imaging of entire macro-scale organs at sub-micron resolution using double-ring modulated light-sheet microscopy

Yao Zhou, Shimeng Gao, Yifan Ma, Jianchao Liu, Peng Fei, Huazhong University of Science and Technology (China)

[IP- 4] PIBM2022-0817-5

Photobiomodulation attenuates microglial activation by enhancing mitophagy

Wenjing Li, Weikang Sun, Xiaotong Gu, Feng Yue¹, Feifan Zhou, Hainan University (China)

[IP- 5] PIBM2022-0820-14

Phthalocyanine/Albumin Assembly for Fluorescence Turn-On Imaging and Photodynamic Immunotherapy

RUI WANG, Hainan Medical University (China)

[IP- 6] PIBM2022-0824-1

Photoacoustic Microscopy of Alcohol-induced Cerebrovascular Alterations

Weikang Sun, Jie Rao, Miao Wang, Bingdong Cai, Feifan Zhou, Hainan University (China)

[IP- 7] PIBM2022-0824-2

Fe₂P nanorods based photothermal therapy combined with immune checkpoint inhibitors for pancreatic cancer

Ruixiang Song, Shanshan Liu, Jiawen He, Feifan Zhou, Hainan University (China)

PIBM 2023 Poster List

[IP- 8] PIBM2022-0903-1

A Novel Cranial Window for Long-term In Vivo Imaging of β -Amyloid Plaque in a Mouse Model of Alzheimer's Disease

Ziyi Luo, Junle Qu, Shenzhen University (China)

[IP- 9] PIBM2022-0904-2

Synergistic photobiomodulation with 808-nm and 1064-nm lasers to reduce the β -amyloid neurotoxicity in the in vitro Alzheimer's disease models

Renlong Zhang, Junle Qu, Shenzhen university (China)

[IP- 10] PIBM2022-0905-5

Photobiomodulation therapy alleviates inflammatory related Alzheimer's disease pathology via mollifying NLRP3-associated inflammasome

Junyu Li, South China Normal University (China)

[IP- 11] PIBM2022-0905-9

The initial research mechanism of photothermal therapy for melanoma

Lei Shi, Huadong Hospital, Fudan University (China)

[IP- 12] PIBM2022-0906-6

Intravital imaging reveals the spatiotemporal changes of dendritic cells in tumor microenvironment during cancer photo-immunotherapy

Minghui Feng, Ruixiang Song, Feifan Zhou, Hainan University (China)

[IP- 13] PIBM2022-0910-30

Three-dimensional fluorescent imaging of colorectal cell-mobilized CX3CR1+CCR2+F4/80+ macrophage recruitment in early liver metastasis

Mengli Xu, Zheng Liu, Zhihong Zhang, Huazhong University of Science and Technology (China)

[IP- 14] PIBM2022-0910-34

Liver scRNA-seq Database: a comprehensive database of scRNA-seq for human and mouse liver

Qi Pan, Zhihong Zhang, Huazhong University of Science and Technology (China)

[IP- 15] PIBM2022-0911-4

The role of autonomic nervous system in the liver tumor microenvironment (TME)

Gao LuLu, Zhihong Zhang, Huazhong University of Science and Technology (China)

[IP- 16] PIBM2022-0913-1

Structure and transcriptome profiling of hepatic lymphatics

Huang Songlin, Huangzhong University of Science and Technology (China)

[IP- 17] PIBM2022-0909-10

Accurate evaluation of the treatment effects of immunotherapy on subcutaneous ovarian cancer in mice with nonlinear optical imaging and algorithmic analysis

Wang Shiqi, Liu Liwei, Shenzhen University (China)

PIBM 2023 Poster List

[IP- 18] PIBM2022-1017-1

Manganese coordination micelles that activate stimulator of interferon genes and capture in-situ tumor antigens for cancer metalloimmunotherapy

Li Jiexin, Tianjin University (China)

[IP- 19] PIBM2022-0205-2

Multiphoton microscopy-based collagen signature nomogram: a novel biomarker to predict lymph node metastasis in early gastric cancer

Gangqin Xi, Shuangmu Zhuo, Jimei University (China)

Analytical Biophotonics & Agri-Photonics

[AP- 1] PIBM2022-0908-3

Rapid Classification of Micro-particles Using Dynamic Light Scattering and Machine Learning

He Xu, Mubashir Hussain, Liu Bin, Nanjing Medical University (China)

[AP- 2] PIBM2022-0910-22

Electrical characteristics of DNA and cell migration in microchannels

Jie Zhu, Wang Kaige, Northwest University (China)

[AP- 3] PIBM2022-0910-27

Using spiking neural network to distinguish different modal images

Ziqi Zhang, Shangbin Chen, Huazhong University of Science and Technology (China)

[AP- 4] PIBM2022-0107-1

A Monte-Carlo Simulation Study of the Depth-resolved Backscattering Photons in Layered Human Skin

Shuquan Xiao, Yunxu Sun, Ting Ma, Zhengjun Liu, Wei Liu, Harbin Institute of Technology, Shenzhen (China)

[AP- 5] PIBM2022-0114-1

Spatiotemporal high-resolution ghost imaging via physics-guided deep learning

Xiangru Liu, Shutian Liu, Zhengjun Liu, Wei Liu, Harbin Institute of technology (China)

[AP- 6] PIBM2022-0819-5

A compact real-time quantitative differential phase contrast imaging system for sparse sample analysis

Tao Peng, Zeyu Ke, Shuhe Zhang, Meng Shao, Peng Wang, Rongsheng Lu, Jinhua Zhou, Anhui Medical University (China)

[AP- 7] PIBM2022-0820-26

Development of inverted transmission Mueller matrix microscopy and the applications for living cell imaging

Huang Tongyu, Hu Zheng, Zhao Qianhao, Ma Hui, Tsinghua University (China)

[AP- 8] PIBM2022-0909-36

A high-accuracy measurement of Young's Modulus of a cell manipulated by atomic force microscopy

Geng Sen, Yan Kesong, Liu Shuai, Yu Lingyao, Yin Jun, Guilin University of Electronic Technology (China)

PIBM 2023 Poster List

[AP- 9] PIBM2022-0910-7

Three-dimensional light-scattering and deformation of individual human blood cells in optical line tweezers
Liu Shuai, Yu Lingyao, Yin Jun, Guilin University of Electronic Technology (China)

[AP- 10] PIBM2022-0818-13

Retinex-DPC: automatic background rectified quantitative differential phase contrast imaging
Zhang Shuhe, Tao Peng, Zeyu Ke, Han Yang, Tos Berendschot, Jinhua Zhou, Maastricht University (Netherlands)

[AP- 12] PIBM2022-0818-3

Diffuse optical tomography image reconstruction based on graph convolution network
Linxuan Su, Jinchao Feng, Beijing University of Technology (China)

[AP- 13] PIBM2022-0818-7

Spectrum-shaped Si-perovskite hybrid photodetectors for hyperspectral bio-imaging
Yujin Liu, Guangzhou Institute of Technology, Xidian University (China)

[AP- 14] PIBM2022-0818-9

A universal CRISPR/Cas9-based electrochemiluminescence probe for sensitive and single-base-specific DNA detection
Lingyi Wu, Ru Huang, Hainan University (China)

[AP- 15] PIBM2022-0819-10

Limited-angle Cherenkov-Excited Luminescence Scanned Tomography Reconstruction based on Spatial Attention Module
Jinchao Feng, **Mengfan Geng**, Beijing University of Technology (China)

[AP- 16] PIBM2022-0819-12

Regorafenib induces Bim-mediated intrinsic apoptosis by blocking AKT-mediated FOXO3anuclear export
Tongsheng Chen, **Beini Sun**, South China Normal University (China)

[AP- 17] PIBM2022-0819-15

Dual-color Confocal Fluorescence Lifetime Measurement System and Experiment
Lixin Liu, Xidian University (China)

[AP- 18] PIBM2022-0819-17

Implementation of single-photon volume imaging based on ultra-long anti-diffracting beams
Yong Guo, Luwei Wang, Hongyi Han, Yan Wei, Xiaoyu Weng, Yingru Zhu, Junle Qu, Shenzhen University (China)

[AP- 19] PIBM2022-0819-33

Ultralow Laser Power Super resolution Microscopy Based on Digitally Enhanced STED
Xiaochun Shen, Hongyi Han, Luwei Wang, Yong Guo, Wei Yan, Junle Qu, Shenzhen University (China)

[AP- 20] PIBM2022-0819-34

MFF induces Drp1-independent mitochondrial fission by inhibiting mitofusins
Chunchun An, Tongsheng Chen, South China Normal University (China)

PIBM 2023 Poster List

[AP- 21] PIBM2022-0819-37

Golgi-derived PI4P vesicles contribute to mitochondria division by coordinating with actin aggregation.

Xinxin Duan, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)

[AP- 22] PIBM2022-0820-33

Trapping and revolving manipulation of multiple micron particles with line optical tweezers

Lingyao Yu, Jun Yin, Guilin University of Electronic Technology (China)

[AP- 23] PIBM2022-0907-10

Snapshot temporal compressive light-sheet fluorescence microscopy via deep denoising and total variation priors

Meiqin Wang, Bin Yu, Shenzhen University (China)

[AP- 24] PIBM2022-0907-4

Processing and analysis of motion-blur images in light scattering flow cytometry

Fubang Yuan, Zhiweng Wang, Qiao Liu, Xuanta Su, Shandong University (China)

[AP- 25] PIBM2022-0907-7

Analysis of the impacts of relay lens resolution on image reconstruction quality in pixel-wise coded exposure imaging

Zhiye He, Shenzhen University (China)

[AP- 26] PIBM2022-0907-9

Two - photon sub diffraction multifocal structure illumination microstudy

Xiaojuan Quan, Shenzhen University (China)

[AP- 27] PIBM2022-0909-2

Addressable scanning multifocal structured illumination microscopy based on an acousto-optic deflector

Zufu Dong, Lilin Huang, Liangliang Zhou, Bin Yu, Yingying Jing, Danying Lin, Junle Qu, Shenzhen University (China)

[AP- 28] PIBM2022-0909-20

Demonstration of flat-top beam illumination in second harmonic generation microscopy

Bing Wang, Liwei Liu, Shenzhen University (China)

[AP- 29] PIBM2022-0909-3

Revealing spatial organization and mechanism of folate receptors (FRs) on cell membranes using peptide-based STORM imaging

Lilin Huang, Liangliang Zhou, Zufu Dong, Zhenquan Gong, Bin Yu, Yingying Jing, Danying Lin, Junle Qu, Shenzhen University (China)

[AP- 31] PIBM2022-0909-40

Trapping and revolving manipulation of multiple micron particles with line optical tweezers

Jia Yuan, Hu Xujin, Yu Lingyao, Yin Jun, Guilin University of Electronic Technology (China)

[AP- 32] PIBM2022-0910-12

Study of three-dimensional blood cells manipulated in optical stretcher

Kesong Yan, Shuai Liu, Sen Geng, Lingyao YU, Jun Yin, Guilin University of Electronic Technology (China)

PIBM 2023 Poster List

[AP- 33] PIBM2022-0910-20

Colony Species Identification and Nondestructive Survival Testing for Aerobic Skin Bacteria and Fungi Using Terahertz Time-domain Spectroscopy

Lu Wen, Gu Yanru, Jia Chuntao, Lu Weizhao, Shandong First Medical University (China)

[AP- 34] PIBM2022-0910-23

Thermus thermophilus Argonaute as a programmable tool for sensitive and specific detection of nucleic acids

Ru Huang, Ziqi Wang, Zitong Wang, Hainan University (China)

[AP- 35] PIBM2022-0911-2

FLIM reveals high salinity resistance in a green algae *Chlorella* sp. Under light and dark conditions

Zeyu Xiao, Yifeng Deng, Wei Sun, Sihan Wu, Zixin Zhang, Yinchu Wang, Haipeng Liu, Yijia Zeng, Zhen Lu, Xiao Peng, Huifeng Wu, Junle Qu, Shenzhen University (China)

[AP- 36] PIBM2022-0926-1

Three-dimensional resolution enhancement of two-photon microscopy with deconvolution combined pupil engineering

Jiangfeng Huang, Zhou Zhou, Ling Fu, Huazhong University of Science and Technology (China)

[AP- 37] PIBM2022-1101-2

Fast microalgae detection based on YOLOv3 algorithm

Xiao Peng, Ruijie Xiang, Zeyu Xiao, Sihan Wu, Haipeng Liu, Zixin Zhang, Yinchu Wang, Chaojie Zeng, Zhen Lu, Wei Yan, Junle Qu, Shenzhen University (China)

[AP- 38] PIBM2022-0206-9

Toxicological effect evaluation of arsenic exposure in clam *Ruditapes philippinarum* by using FLIM

Xiao Peng, Wei Sun, Sihan Wu, Zheng Peng, Zeyu Xiao, Yifeng Deng, Deliang Yu, Zhen Lu, Wei Yan, Huifeng Wu, Junle Qu, Shenzhen University (China)

Translational Biophotonics

[TP- 1] PIBM2022-0818-12

Development of a wireless brain electrical stimulation system and exploration of cerebral vasculature based on OCT-Angiography in vivo imaging

Yunrui Zhang, Junwei Li, Qingliang Zhao, Xiamen University (China)

[TP- 2] PIBM2022-0818-6

A Monte Carlo-based full-wavelength image simulator of Fourier-domain optical coherence tomography

Jianing Mao, Yuye Ling, Ping Xue, Yikai Su, Shanghai Jiao Tong University (China)

[TP- 3] PIBM2022-0818-8

A GPU-accelerated iterative method for Fourier-domain optical coherence tomography image reconstruction

Mengyuan Wang, Zhenxing Dong, Yuye Ling, Yikai Su, Shanghai Jiao Tong University (China)

PIBM 2023 Poster List

[TP- 4] PIBM2022-0820-19

Measuring tissue oxygen saturation from multiple scattering in visible light OCT based on random matrix description

Danlei Qiao, Shanbao Tong, Peng Miao, Shanghai Jiao Tong University (China)

[TP- 5] PIBM2022-0820-29

Modified Beer-Lambert Law with Diffusion Correction in vis-OCT

Yan Shi, Shanbao Tong, Peng Miao, Shanghai Jiao Tong University (China)

[TP- 6] PIBM2022-0823-3

Common path endoscopic probe with a ultrasonic motor

Zhengyu Chen, Ping Xue, Tsinghua university (China)

[TP- 7] PIBM2022-0831-1

Quantitative optical coherence elastography for detection of scleral elasticity using a phase velocity algorithm

Sizhu Ai, Yubao Zhang, Xingdao He, Nanchang Hangkong University (China)

[TP- 8] PIBM2022-0831-2

Characterization of limbus biomechanical properties by optical coherence elastography with a phase velocity algorithm

Yidi Wang, Yubao Zhang, Xingdao He, Nanchang Hangkong University (China)

[TP- 9] PIBM2022-0904-1

Quantitative assessment of in vivo corneal biomechanics after clinical surgery using optical coherence elastography

Zhu Yirui, Yubao Zhang, Xingdao He, Xiaoshan Wu, Nanjing University (China)

[TP- 10] PIBM2022-0905-1

Retinal Image Enhancement with Improved Optical Path and Cycle-Constraint Adversarial Network

Luyao Yang, Fengxian Du, Qingliang Zhao, Xiamen University (China)

[TP- 11] PIBM2022-0910-28

3D geometric corrections of optical coherence tomography for quantitative corneal measurement

Lv Haijun, Zeng Shaoqun, Liu Xiuli, Cui Binglin, Zhang Zhuoyu, Zhou Jian, Lv Xiaohua, HUST (China)

[TP- 12] PIBM2022-0819-16

Targeted Stimuli-Responsive Prodrug for Image-Guided Combination Therapy of Triple-Negative Breast Cancer

Yundi Wu, Can Yao, Qu Huanran, Wu Xilong, Hainan University (China)

[TP- 13] PIBM2022-0819-26

Bioimaging of Glutathione with a Two-Photon Fluorescent Probe and Its Potential Application for Surgery Guide in Laryngeal Cancer

Yun He, Yuxia Zou, Yanlong Xing, Fabiao Yu, Hainan Medical University (China)

[TP- 14] PIBM2022-0203-4

Design of black TiO₂ hollow-sphere as contrast agent for terahertz medical imaging

YiWen Hu, ZhiYao Yan, Jiang Li, Li-Guo Zhu, QiWu Shi, Sichuan University (China)

PIBM 2023 Poster List

[TP- 15] PIBM2022-0907-5

Diffusion model for sparse photoacoustic tomography artifact removal

Guijun Wang, Yanan Hu, Gang Hu, Hongyu Zhang, Qiegen Liu, Xianlin Song, Nanchang University (China)

[TP- 16] PIBM2022-0127-1

Improved deep image prior-based high-speed optical-resolution photoacoustic microscopy

Weihan Zhang, Yun Lu, Yunxu Sun, Ting Ma, Zhengjun Liu, Wei Liu, Harbin Institute of Technology, Shenzhen (China)

[TP- 17] PIBM2022-0819-42

Polyamine-Targeting Gefitinib Prodrug and its Near-Infrared Fluorescent Theranostic Derivative for Monitoring Drug Delivery and Lung Cancer Therapy

Yanhong Zhou, Wei Zhang, Longping Ye, Hui Chen, Shanshan Lin, Dianqi Zhang, Rui Wang, Fabiao Yu, Hainan Medical University (China)

[TP- 18] PIBM2022-0819-43

Indication of dynamic peroxynitrite fluctuations in the rat epilepsy model with a near-infrared two-photon fluorescent probe

Hui Chen, Xianzhu Luo, Rui Wang, Fabiao Yu, Hainan Medical University (China)

[TP- 19] PIBM2022-0206-1

Fast 3D imaging of whole organs at cellular resolution by high-throughput multi-scale light-sheet microscopy

Xinyi Guo, Fang Zhao, Wenyang Feng, Wentian Si, Xingyu Chen, Tianhao Zhang, Peng Fei, Huazhong University of Science and Technology (China)

[TP- 20] PIBM2022-0819-18

Mechanism of vascular asymmetry in embryonic yolk sac based on microcirculation imaging

Pengyu Chen, Bei Zhang, Qingliang Zhao, Xiamen university (China)

[TP- 21] PIBM2022-0819-32

Highly Sensitive Detection of Hormone Estradiol E2 Using Surface Enhanced Raman Scattering Based Immunoassays for the Clinical Diagnosis of Precocious Puberty

Longping Ye, Wei Zhang, Yanhong Zhou, Hui Chen, Shanshan Lin, Dianqi Zhang, Fabiao Yu, Rui Wang, Hainan Medical University (China)

[TP- 22] PIBM2022-0819-35

Highly sensitive detection of high-risk bacterial pathogens using SERS-based lateral flow assay strips

Dianqi Zhang, Rui Wang, Fabiao Yu, Engineering Research Center for Hainan Bio-Smart Materials and Bio-Medical Devices (China)

[TP- 23] PIBM2022-0901-3

AgInS₂/ZnS quantum dots for noninvasive cervical cancer screening with intracellular pH sensing using fluorescence lifetime imaging microscopy

Su Wenhua, Ma Jiong, Mi Lan, Fudan University (China)

PIBM 2023 Poster List

[TP- 24] PIBM2022-0909-12

iCut enables cell segmentation in whole slide imaging for the lung tissue of a rat model of asthma

Rong Xiao, Xiaotong Wang, Yicheng Xie, YunSheng Lin, Shangbin Chen, Huazhong University of Science and Technology (China)

[TP- 25] PIBM2022-0909-41

Deep-learning aided, label-free blood analysis based on defocusing imaging under 415 nm illumination

Duan Chen, Ning Li, Xiuli Liu, Shaoqun Zeng, Xiaohua Lv, Li Chen, Yuwei Xiao, Qinglei Hu, Huazhong University of Science and Technology (China)

[TP- 26] PIBM2022-0913-3

Digitalization of multiscale anatomical structures in murine liver lobe

Qi Zhang, Anan Li, Zhao Feng, Qingming Luo, Hui Gong, Huazhong University of Science and Technology (China)

[TP- 27] PIBM2022-0824-3

An accelerated FIST algorithm based on generalized mutual coherence for Fluorescence Molecular Tomography

Yuxuan Jiang, Kaixian Liu, Wensong Li, Yong Deng, Huazhong University of Science and Technology (China)

[TP- 28] PIBM2022-0801-1

Real-Time Full-Body Motion tracking based on optical tracking system

Zeng Qiang, Zheng Gang, Liu Qian, Huazhong University of Science and Technology (China)

[TP- 29] PIBM2022-0817-2

Improved image quality of diffusion optical tomography through a deep learning based post-processing method

Shumin Lin, Jinchao Feng, Beijing University of Technology (China)

[TP- 30] PIBM2022-0817-3

Study on real-time changes of reduced scattering coefficient and Young's modulus during microwave ablation of ex vivo porcine liver

Xiaofei Jin, Yiran Li, Lu Qian, Zhiyu Qian, Nanjing University of Aeronautics and Astronautics (China)

[TP- 31] PIBM2022-0817-6

Biochemical response induced by the γ -secretase inhibitor DAPT combined with cisplatin on osteosarcoma cells evaluated by confocal Raman microscopy

Jie Li, Xianyang Normal University (China)

[TP- 32] PIBM2022-0817-7

Design of a fluorescence-based in vivo drug metabolism monitoring system for small animals

Yiran Li, Zhiyu Qian, Xiaofei Jin, Nanjing University of Aeronautics and Astronautics (China)

[TP- 33] PIBM2022-0818-1

Validation of microwave ablation simulation as an effective curative effect evaluation method through infrared thermal imaging

Lu Qian, Xiaofei Jin, Yu Feng, Zhiyu Qian, Chunxiao Chen, Nanjing University of Aeronautics and Astronautics (China)

PIBM 2023 Poster List

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Fast photoacoustic imaging technology for deep structure information of finger

Tianye Meng, Yubin Liu, Fujian Normal University (China)

[TP- 35] PIBM2022-0819-3

Developing a real-time dual-modal photoacoustic and fluorescence small animal imaging system

Yu Sun, Wenzhao Li, Yibing Wang, Changhui Li, Peking University (China)

[TP- 36] PIBM2022-0819-7

Label-free single cell and exosome analysis with two-dimensional light scattering technology

Zhuo Wang, Aishi Wang, Qiao Liu, Shuanglian Wang, Xuanta Su, Shandong University (China)

[TP- 37] PIBM2022-0819-11

A novel Y-shaped aptasensor based SERS for early and accurate diagnosis of acute kidney injury

Jin Qian, Zi-Yi Cheng, Hainan Medical University (China)

[TP- 38] PIBM2022-0819-13

Label-free detection of exosomes with a SERS biosensor for the early diagnosis of ovarian cancer

Yanlong Xing, Xingya Chen, Yueyue Zhao, Yun He, Qingyuan Liu, Ting Wang, Hainan Medical University (China)

[TP- 39] PIBM2022-0819-22

Three-dimensional reconstruction of the Elaborate structure in digestive system of Xizang plateau frog, Nanorana parkeri tadpole

Xiangyong Li, Dezhou university (China)

[TP- 40] PIBM2022-0819-41

A New NIR Fluorescent Probe for Dynamic and Sensitive Detection of Hydrogen Peroxide in Evaluating Pulmonary Fibrosis

Xingya Chen, Xinyu Song, Fabiao Yu, Yanlong Xing, Hainan Medical University (China)

[TP- 41] PIBM2022-0819-45

Ranging of Confocal Endoscopy Probe Using Recognition and Optical Flow Algorithm

Yu Haoxiang, Hainan University (China)

[TP- 42] PIBM2022-0819-47

Noninvasive photoacoustic molecular imaging study of carotid artery thrombosis in mice model

Fengbing He, Guangzhou Medical University (China)

[TP- 43] PIBM2022-0819-48

A Rapid-Response Ratiometric Near-Infrared Fluorescent Probe Enables Detection of Selenocysteine for Early Diagnosis of Thyroid Diseases

Shanshan Lin, Xianzhu Luo, **Rui Wang**, Fabiao Yu, Hainan Medical University (China)

[TP- 44] PIBM2022-0819-51

Rapid and lable-free surface-enhanced Raman scattering detection of clinical cerebrospinal fluid with high sensitivity and reliability

PIBM 2023 Poster List

Dongjie Zhang, Rui Liu, Qi Zeng, Tingting Zeng, Peirao Yan, Xueli Chen, Xidian University (China)

[TP- 45] PIBM2022-0819-8

Prussian blue nanoparticle-based polyethyleneimine cytotoxicity and oxygen self-supply for co-enhanced photodynamic therapy

Huanhuan Wang, Tongsheng Chen, South China Normal University (China)

[TP- 46] PIBM2022-0820-7

Quantifying vascular-targeted photodynamic therapy effects using dual-band optical coherence tomography

Shijie Lin, Tianlong Chen, Jian Zheng, Yi Shen, Buhong Li, Fujian Normal University (China)

[TP- 47] PIBM2022-0820-15

Vessel segmentation and quantification in ultra-wide-field OCTA images

Xiyao Qiang, Cuixia Dai, Shanghai Institute of Technology (China)

[TP- 48] PIBM2022-0820-18

Analysis of single extracellular vesicles for biomedical applications with especial emphasis on cancer investigations

Wang Ting, **Xing Yanlong**, Hainan Medical University (China)

[TP- 49] PIBM2022-0820-22

Identification of Hepsin as a Biomarker for Human Esophageal Squamous Cell Carcinoma and Verification by a Activatable molecular probes for Cell Imaging

Xu Xinyi, Liu Siting, Zhang Jian, Chen Xueli, Xidian University (China)

[TP- 50] PIBM2022-0820-24

Alternate and Iterative Neural Architecture Search for 3D Medical Image Segmentation

Xueying Zhang, **Shenghua Cheng**, Xiuli Liu, Huazhong University of Science and Technology (China)

[TP- 51] PIBM2022-0820-25

Non-invasive blood flow measurement based on photoacoustic effect

Zhang Hao, Li Dong, Chen Bin, Xi'an jiaotong university (China)

[TP- 52] PIBM2022-0820-27

Monitoring of Laser Skin surgery using integrated multispectral and laser speckle contrast imaging

Xu Sang, Bin Chen, Dong Li, Xi'an jiaotong University (China)

[TP- 53] PIBM2022-0820-30

Polarization based pathological tissue-subtype anatomy

Jiachen Wan, Yang Dong, Hui Ma, Tsinghua Shenzhen International Graduate School (China)

[TP- 54] PIBM2022-0820-31

A novel histone deacetylase-6-targeted NIR-II fluorescent probe for hepatocellular carcinoma imaging

Bo Wang, Chu Tang, Jian Li, Jie Tian, Zhenhua Hu, The Fifth Affiliated Hospital of Sun Yat-sen University (China)

PIBM 2023 Poster List

[TP- 55] PIBM2022-0820-32

Highly-sensitive imaging of colorectal cancer liver metastases based on VEGFR-targeted fluorescent probes in the second near-infrared window— ICG-PEG5000-NHS-Bevacizumab

Bo Wang, Jie Tian, Zhenhua Hu, Jian Li. The Fifth Affiliated Hospital of Sun Yat-sen University (China)

[TP- 56] PIBM2022-0820-34

Compressed sensing spectral domain optical coherence tomography with spectral shaping in the reference arm

Yejiang Shi, Bin He, Ping Xue, Tsinghua University and Collaborative Innovation Center Quantum Matter (China)

[TP- 57] PIBM2022-0820-39

Enhancing laser speckle imaging based on adaptive directional and shape-size filter during V-PDT

Chenfei Ren, Tianlong Chen, Miao Chen, Yi Shen, Buhong Li, Fujian Normal University (China)

[TP- 58] PIBM2022-0821-1

A ratiometric ER targeting fluorescent probe for detecting hypochlorite

Lijuan Gui, China Pharmaceutical University (China)

[TP- 59] PIBM2022-0822-4

Through-Intact-Skull window: a chronic skull optical clearing window for long-term cortical observation

Dongyu Li, Zhengwu Hu, Wang Xi, Jun Qian, Dan Zhu, Huazhong University of Science and Technology (China)

[TP- 60] PIBM2022-0823-1

The application of 3-dimensional optical measurement in evaluating adaptation of complete denture fabricated by selective laser melting

Jiang Wu, Yi-fan Liu, Bo Gao, Air Force Medical University (China)

[TP- 61] PIBM2022-0831-3

Point-to-point optical coherence elastography using a novel phase velocity method

Guo Liu, Yubao Zhang, Xingdao He, Nanchang Hangkong University (China)

[TP- 62] PIBM2022-0905-10

Development of zebrafish embryos observation based on Optical Coherence Tomography

Ke Li, Wangbiao Li, Zaifan Wang, Bin Liu, Hui Li, Zhifang Li, Fujian Normal University (China)

[TP- 63] PIBM2022-0906-1

Determination of birefringence of biological tissue based on PS-OCT with circularly polarized light as reference

Wangbiao Li, Ke Li, Dezi Li, Haiyu Chen, Wenliang Cao, Hui Li, Zhifang Li, Fujian Normal University (China)

[TP- 64] PIBM2022-0907-2

One-shot functional photoacoustic microscopy for monitoring traumatic brain injury

Yameng Zhang, Yang Chen, Xiping Qi, **Weitao Li**, Nanjing University of Aeronautics and Astronautics (China)

[TP- 65] PIBM2022-0907-6

Removal of skin signals in photoacoustic imaging based on deep learning

Yixin Yuan, Tao Chen, Chengbo Liu, Jing Meng, Qufu Normal University (China)

PIBM 2023 Poster List

[TP- 66] PIBM2022-0907-8

A Multifunctional Layered Nickel Silicate Nanogenerator of Synchronous Oxygen Self-Supply and Superoxide Radical Generation for Hypoxic Tumor Therapy

Xiaoyu Huang, Fu Wang, Shanghai Jiao Tong University (China)

[TP- 67] PIBM2022-0908-11

Single-molecule spectroscopy studying the competitive mechanism of simultaneous action of drug Doxorubicin and dye YOYO-1 on DNA molecule

Yanjie Li, Kaige Wang, Northwest University (China)

[TP- 68] PIBM2022-0908-13

Dual modal fluorescent colposcope combined with near-infrared fluorescent dye TMTP1-PEG4-ICG to detect cervical lesions

Ruolan Li, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)

[TP- 69] PIBM2022-0908-17

Quantitative Evaluation of Optic Nerve Head Biomechanical Properties by Acoustic Radiation Force Optical Coherence Elastography

Gang Shi, Yubao Zhang, Xinhe Zheng, Daohe Xing, University of Science and Technology Beijing (China)

[TP- 70] PIBM2022-0908-2

Optimizing remote photoplethysmography system using skin semantic segmentation for pulse rate monitoring

Qing Zhang, Yuxin Zhang, Fuhong Cai, Hainan University (China)

[TP- 71] PIBM2022-0909-16

Deep learning based three-dimensional blood flow imaging of thick tissue based on the transmitted speckle patterns

Ruoyu Chen, Peng Miao, Shanbao Tong, Shanghai Jiao Tong University (China)

[TP- 72] PIBM2022-0909-22

Biocompatible poly(ethylene glycol)-polymerdot hybrid nanogels for NIR-II imaging-guided synergistic stimuli-response to chemotherapy

Mingning Zhu, Changfeng Wu, Southern University of Science and Technology (China)

[TP- 73] PIBM2022-0909-30

Dual Supervised Sampling Networks for Real-time Segmentation of Cervical Cell Nucleus

Die Luo, Tingwei Quan, Xiuli Liu, Huazhong University of Science and Technology (China)

[TP- 74] PIBM2022-0909-48

Application of image segmentation technology in TCM consultation

Hong Peng, Hainan university (China)

[TP- 75] PIBM2022-0909-5

Microwave-induced Thermoacoustic Endoscopy

Zhang Huimin, Qin Huan, South China Normal University (China)

PIBM 2023 Poster List

[TP- 76] PIBM2022-0909-9

Enhancement of the depth of field of photoacoustic microscopy based on deep learning

Gang Hu, Yanan Hu, Rui Wang, Xiaohai Yu, Xianlin Song, Nanchang University (China)

[TP- 77] PIBM2022-0910-10

Experiment and Research on 355nm Ultraviolet Laser Ablation of Coronary Artery Thrombosis

Mincheng Li, **Yucheng Yao**, Zhibing Lu, Yue Hu, Xiaoyue Deng, Ze Zhang, Hubei University of Technology (China)

[TP- 78] PIBM2022-0910-32

Finite element modeling of corneal biomechanical response

Zimeng Zhou, **Xiaohua Lv**, Shaoqun Zeng, Tingwei Quan, Yihui Wei, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology (China)

[TP- 79] PIBM2022-0917-2

ResMNet: an Efficient Multiscale Mixed Convolutional Neural Network for OCT Retinal Image Classification

Mighui Chen, University of Shanghai for Science and Technology (China)

[TP- 80] PIBM2022-0921-3

Optimization algorithm of intravascular photoacoustic endoscopy based on deep learning

Dongjian Wu, Mingjian Sun, Harbin Institute of Technology (China)

[TP- 81] PIBM2022-0921-4

Mild-temperature photoacoustic and photothermal therapy system and method based on adaptive Fuzzy-PID control

Yiming Ma, Mingjian Sun, Harbin institute of technology (China)

[TP- 82] PIBM2022-0926-2

Classification of skin cancer based on hyperspectral microscopic imaging and machine learning

Meijie Qi, **Lixin Liu**, Yanru Li, Yujie Liu, Xidian University (China)

[TP- 83] PIBM2022-0926-4

A probe-based Confocal Endomicroscopy System for Biliary and Pancreatic Duct

Xiaoxiao Ma, Jing Cao, Qian Liu, Ling Fu, Huazhong University of Science and Technology (China)

[TP- 84] PIBM2022-1001-1

Semi-Automatic Segmentation of Coronary Vessels Based on Improved Livewire Algorithm

Jessica Dong, Zhengguo Dai, Tianwu Xie, Xin Yi, Shanghai American School (China)

[TP- 85] PIBM2022-1021-1

Artifact removal with physical model and deep learning for limited-data photoacoustic tomography

Wenhua Z'hong, XianLin Song, GuiJun Wang, qiegen liu, HongYu Zhang, Nanchang University (China)

[TP- 86] PIBM2022-1030-1

Unsupervised learning network for noise reduction in optical-resolution photoacoustic microscopy

Shuchong Peng, Kanggao Tang, Wenhua Zhong, Xianlin Song, Nanchang University (China)

PIBM 2023 Poster List

[TP- 87] PIBM2022-1101-1

FLIM based approach for noninvasive detection of mitochondria in tumor spheroids

Sihan Wu, Zeyu Xiao, Jingwen Huang, Yifeng Deng, Wei Sun, Jiaming Chen, Yuan Cai, Zhigang Yang, Xiao Peng, Zaozao Chen, Wei Yan, Junle Qu, Shenzhen University (China)

[TP- 88] PIBM2022-1111-2

Photoacoustic molecular imaging for microvascular system in browning adipose tissues

Ronghe Chen, Sangni Lixu, Tao Chen, Xiamen University (China)

[TP- 89] PIBM2022-0108-1

A Simulation Study of photoacoustic imaging for bladder cancer

Dongqing Peng, Yangke LI, Lili Zhu, Jimei University (China)

[TP- 90] PIBM2022-0129-1

Thermal-tagging Photoacoustic Remote Sensing Flowmetry

Yun Lu, Wei Liu, Yunxu Sun, Xiaochuan Xu, Ting Ma, Zhengjun Liu, Harbin Institute of Technology, Shenzhen (China)

[TP- 91] PIBM2022-0131-1

Explore the visibility enhancement of photoacoustic microscopy: modelling and implementation

Hao Shen, Yunxu Sun, Xiaochuan Xu, Mingyu Zhang, Zhengjun Liu, Wei Liu, Harbin Institute of Technology, Shenzhen (China)

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[TP- 100] PIBM2022-0206-3

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