



中国科学院生物物理研究所
Institute of Biophysics, Chinese Academy of Sciences



中国体视学学会磁共振成像分会
Magnetic Resonance Imaging Branch of Chinese Society for Stereology

2026 | ULTRAHIGH-FIELD MRI SYMPOSIUM | Huairou, Beijing

Ultrahigh-Field Symposium on Functional, Multinuclear and Metabolic MRI

Date:

November 6–8, 2026

Venue:

Swan Lakeview Hotel, Huairou District, Beijing

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CONFERENCE OVERVIEW

To propel the development of ultrahigh-field functional, multinuclear and metabolic magnetic resonance imaging (UHF MRI) technologies, support neuroscience research, clinical diagnosis and treatment of major neurological and psychiatric diseases, Institute of Biophysics, Chinese Academy of Sciences and Magnetic Resonance Imaging Branch of Chinese Society for Stereology will jointly host an "Ultrahigh-Field Symposium on Functional, Multinuclear and Metabolic Magnetic Resonance Imaging" (UHF Symposium on Functional, Multinuclear and Metabolic MRI) in Huairou District, Beijing, China, from November 6th to 8th, 2026. This event also aims to further promote the open resource sharing and collaborative research at National Multimodal Cross-Scale Biomedical Imaging Facility located in Huairou Science City (HSC).

Conference Co-organizers: Institute of Biophysics, Chinese Academy of Sciences

Magnetic Resonance Imaging Branch, Chinese Society for Stereology

Chair of the Academic Committee:

Professor Jiahong Gao, Academy for Advanced Interdisciplinary Studies, Peking University

Organizing and Executive Chairs:

Professor Rong Xue, Institute of Biophysics, Chinese Academy of Sciences

Professor Rui Li, Institute of Biomedical Engineering, Tsinghua University

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CONFERENCE THEMES

01

Front-Edge MRI Technology in High Fields

02

High-Field Functional MRI

03

Multinuclear MRI: Methods and Applications

04

MRI Applications in Brain Diseases

05

Metabolic MRI and MR Spectroscopy

06

Artificial Intelligence in Neuroimaging

REGISTRATION

Registration fees are listed below. Electronic invoices will be issued by the Chinese Society for Stereology.

Non-members: RMB 200

Members: RMB 150

Student members: RMB 100

Registration is free for speakers, discussants, session chairs and conference staff.

To register, scan the left QR code below or visit <https://tscss.kejie.org.cn/meeting/UHFMRI2026/>

For further symposium information, including accommodation, scan the right QR code below or visit <https://s.31url.cn/9CVsNYrI/>



Registration



Symposium details

ACCOMMODATION

The designated hotel is Swan Lakeview Hotel (Beijing Zhongjian Yanqi Lakeview Hotel), at a negotiated rate of RMB 600 per room, including two breakfasts. Advance booking is required.

For reservations, please contact Manager Li: +86 13501364523.

TRANSPORTATION

Round-trip shuttle buses will operate on November 7–8 along the route: Zhongguancun (north to Rongke Information Center, Bldg. A, south to side road of North Fourth Ring) – Institute of Biophysics, CAS (east to the north gate of Fenglin Oasis) – Swan Lakeview Hotel, Huairou, Beijing. Please contact the Conference Secretariat for details.

CONFERENCE SECRETARIAT

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Friday November 6th Afternoon

Date	Time	Event
Nov 6 Fri.	14:00–18:00	Registration & Check-in • Beijing Swan Lakeview Hotel
	18:00–20:00	Dinner

Saturday November 7th Morning

Date	Time	Presentation Title	Speaker	Affiliation
Nov 7 Sat.	08:30–08:40	Opening Remarks	Jiahong Gao Peking Univ.	Meeting Chair: Rui Li (Tsinghua University, China)
	SESSION I — Front-Edge MRI Technologies in High-Fields Moderator: Rong Xue (Institute of Biophysics, CAS, China)			
	08:45–09:15	Keynote Lecture I — High Resolution AVAST Imaging at 3T and 5T: A one stop method for imaging cerebrovascular disease	E. Mark Haacke	Wayne State University, USA
	09:20–09:35	Invited Talk 1 — Hyperpolarized Xenon MRI and Clinical Applications	Xin Zhou	Innovation Academy for Precision Measurement Science and Technology, CAS, China
	09:40–09:55	Invited Talk 2 — An ultra-high gradient MRI system dedicated for brain-computer interface science	Dan Wu	Zhejiang University, China
	10:00–10:12	Tea Break		
	SESSION II —High-Field Functional MRI Moderator: Hua Guo (Tsinghua University, China)			
	10:15–10:30	Invited Talk 3 — High-Resolution fMRI at Ultrahigh Fields for Mapping Neural Circuits	Seong Gi Kim	Sungkyunkwan University / IBS, South Korea
	10:35–10:50	Invited Talk 4 —Causal Spatiotemporal Mapping of Functional Circuits	Hesheng Liu	Changping National Lab/ Peking University, China
	10:55–11:10	Invited Talk 5 — Probing Arousal Modulation of Functional Neural Networks Using Multimodal fMRI in Animals	Zhifeng Liang	Institute of Neuroscience, CAS, China
	11:15–11:45	Panel Discussion I, Moderators: Fangrong Zong (BUPT), Hua Guo, Rong Xue		
	11:50–13:30	Lunch Break		

Saturday November 7th Afternoon

Date	Time	Program / Presentation Title	Speaker	Affiliation
Nov 7 Sat.	SESSION III — Multinuclear MRI: Methods and Applications Moderator: Zhentao Zuo (Institute of Biophysics, CAS)			
	13:30–13:45	Invited Talk 6 — A Standardized MRI Phantom for Dissolved-Phase Hyperpolarized Xe MRI at High and Low Magnetic Field Strengths	Thomas Meersmann	University of Nottingham / UNNC, UK–China
	13:50–14:05	Invited Talk 7 — Beyond Proton MRI: Advancing 2H and Hyperpolarized 13C Metabolic Imaging in Humans at 7T	Xiaoliang Zhang	SUNY Buffalo, USA
	14:10–14:25	Invited Talk 8 — Physics and Applications of Multinuclear and Hyperpolarized MR	Steffen Ringgaard	Aarhus University, Denmark
	14:30–14:42	Tea Break		
	SESSION IV — Applications for Brain Diseases Moderator: Ge Song (Huairou Hospital)			
	14:45–15:00	Invited Talk 9 — Studies of Intravoxel Tissue Heterogeneity at High Field	Xiaohong Zhou	University of California, Los Angeles, USA
	15:05–15:20	Invited Talk 10 — Contrast-Free MRI Method for Blood-brain barrier Permeability Characterization	Ruiliang Bai	Zhejiang University / Liangzhu Laboratory, China
	15:25–15:40	Invited Talk 11 — Emerging 7T Imaging Markers of Cerebral Small Vessel Disease	Zihao Zhang	Institute of Biophysics, CAS, China
	15:45–16:15	Transportation to Huairou Science City (HSC)		
	16:15–17:45	Site Visit — National Multimodal Cross-Scale Biomedical Imaging Facility, HSC		
	18:15–20:00	Dinner / Banquet		

Sunday November 8th

Date	Time	Program / Presentation Title	Speaker	Affiliation
Nov 8 Sun	08:45–09:15	Keynote Lecture II — The Future of High Field MRI	Oliver Speck	Otto von Guericke University Magdeburg, Germany
	SESSION V — Metabolic MRI & MRS Moderator: Yi Zhang (Zhejiang University)			
	09:20–09:35	Invited Talk 12 — MR Deuterium Metabolic Imaging	Xin Liu	Shenzhen Institutes of Advanced Technology, CAS, China
	09:40–09:55	Invited Talk 13 — Label-Free Metabolic MRI Towards Clinic: CEST and 31P-MRSI Development	Xiaolei Song	Tsinghua University, China
	10:00–10:12	Tea Break		
	SESSION VI — Artificial Intelligence in Neuroimaging Moderator: He Wang (Fudan University)			
	10:15–10:30	Invited Talk 14 — Intelligent Brain MRI	Qiyuan Tian	Tsinghua University, China
	10:35–10:50	Invited Talk 15 — What Is Holding Clinical Adoption of Ultra-High Field MRI Back?	Kristoffer H. Madsen	Technical University of Denmark (DTU), Denmark
	10:55–11:10	Invited Talk 16 — Construction of a Multi-Dimensional Digital Twin Brain Using Magnetic Resonance Imaging of Ultrahigh-Gradient Field	Yu Xue	GE Healthcare (China)
	11:15–11:45	Panel Discussion II, Moderators: Haiyan Ding (Tsinghua University), He Wang, Yi Zhang		
	11:50–12:00	Closing Remarks	Rong Xue Rui Li	Institute of Biophysics, CAS Tsinghua University
	12:00–13:30	Lunch Break		
	13:30–15:30	Visit — Yanqi Lake APEC Conference Venue Advance registration required (Optional)		
	15:30–	End of Program / Departure		

PROGRAM NOTES

- Each scientific session includes two-three presentations. The keynote lecture is the first presentation of the morning session on each scientific day.
- The six scientific sessions cover UHF MRI technology, functional MRI, multinuclear MRI, applications for brain diseases, metabolic MRI/MRS, and AI in Neuroimaging.
- *The optional APEC venue visit requires advance registration and is subject to access arrangements.

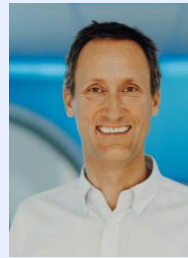
Invited Speakers



SPEAKER 01

E. Mark Haacke

Wayne State University, USA
Professor of Radiology and Ruijin Hospital, Shanghai
MR Angiography, Susceptibility-weighted imaging and MRI of neurodegenerative diseases



SPEAKER 02

Oliver Speck

Otto von Guericke University Magdeburg, Germany
Professor; Department Head
Ultrahigh-field human MRI and neuroimaging applications



SPEAKER 03

Xin Zhou

Innovation Academy for Precision Measurement Science and Technology, CAS, China
President; Professor
Multinuclear MRI and hyperpolarized-gas lung imaging



SPEAKER 04

Dan Wu

School of Biomedical Engineering and Instrument Science, Zhejiang University, China
Qiusi Distinguished Professor; Vice Dean
Diffusion MRI, neuroimaging analysis, AI and big data in medical imaging



SPEAKER 05

Seong-Gi Kim

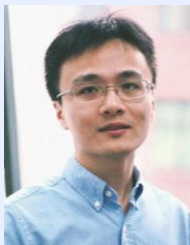
Sungkyunkwan University / Institute for Basic Science (IBS), South Korea
Distinguished Professor; Research Center Director
High-field fMRI and neural-hemodynamic coupling



SPEAKER 06

Hesheng Liu

Changping Laboratory / Peking University, China
Chief Scientist; Professor
Individualized functional brain mapping and precision neuromodulation



SPEAKER 07

Zhifeng Liang

Institute of Neuroscience, CAS, China
Professor, Principal Investigator; Head of Comparative Neuroimaging Group
Functional MRI and functional brain networks



SPEAKER 08

Thomas Meersmann

University of Nottingham Ningbo China
Professor of Medicine and Health Sciences
Hyperpolarized-gas MRI and pulmonary functional imaging

**SPEAKER 09****Xiaoliang Zhang**

University at Buffalo, State University of New York, USA

Empire Innovation Professor

Ultrahigh-field MRI and in vivo applications

**SPEAKER 10****Steffen Ringgaard**

Department of Clinical Medicine, Aarhus University, Denmark

Associate Professor

Multinuclear MRI/MRS methods and biomedical applications

**SPEAKER 11****Xiaohong Joe Zhou**

University of California, Los Angeles, USA

Professor; Radiology and Radiation

Oncology, Director, Physics and Biology in Medicine Program

Cancer imaging; Diffusion imaging, MR physics and pulse sequence

**SPEAKER 12****Ruiliang Bai**

Zhejiang University / Liangzhu Laboratory, China

Professor; Principal Investigator

Cerebral circulation, blood-brain barrier imaging and quantitative MRI

**SPEAKER 13****Zihao Zhang**

Institute of Biophysics, CAS, China

Professor

Ultrahigh-field MRI technology and cerebral small vessel disease imaging

**SPEAKER 14****Xin Liu**

Shenzhen Institutes of Advanced Technology, CAS, China

Professor, Vice-president

Ultrahigh-field molecular and metabolic imaging; rapid cardiovascular and cerebrovascular imaging

**SPEAKER 15****Xiaolei Song**

School of Medical Technology, Beijing Institute of Technology, China

Professor

Novel molecular and metabolic MRI and clinical applications

**SPEAKER 16****Qiyuan Tian**

School of Biomedical Engineering, Tsinghua University, China

Principle Investigator, Assoc. Professor

Novel magnetic resonance and neuroimaging technologies

**SPEAKER 17****Kristoffer H. Madsen**

Technical University of Denmark (DTU), Denmark

Professor of Applied Mathematics and Computer Science

Machine learning and neuroimaging applications in psychiatric disorders

**SPEAKER 18****Yu Xue**

MRI Business, GE Healthcare

Scientific Product Manager

Multi-dimensional digital twin brain using ultrahigh-gradient MRI