

The 1st Announcement

4th International Conference on Matter and Radiation at Extremes (ICMRE 2019)

May 29 – June 2, 2019

Hefei, Anhui, China

The Fourth International Conference on Matter and Radiation at Extremes (ICMRE 2019) will be held in Hefei, Anhui on May 29 – June 2, 2019. Supported by the journal *Matter and Radiation at Extremes* (MRE), ICMRE is a serial conference convened annually since 2016 when MRE was launched. ICMRE 2016, ICMRE 2017 and ICMRE 2018 were held successfully in Chengdu, Beijing and Qingdao, respectively. Attendance at ICMRE generally varies from 200 to 300, including international attendees from about 10 countries. The goal of ICMRE is to bring together scientists from all over the world to exchange opinions and discuss latest achievements in the field of matter and radiation at extreme conditions.

ICMRE2019, hosted by the Institute of Fluid Physics, China Academy of Engineering Physics and University of Science and Technology of China, will provide a forum to discuss the latest results of physics, technology and applications in the areas of matter and radiation at extremes. It is organized together with the 1st International Conference on Innovative Fusion Approaches (Xi'an, May 26 – 28, 2019). We look forward to your participation in beautiful Hefei next year!

The details of ICMRE2019 can be explored on the website: icmre2019.mre.org.cn.

The abstract submission and conference registration are now open online. Please download the abstract template on the website and upload the abstract to complete the submission.

Presentations and papers will be welcomed on theoretical, computational, and experimental research on the following five topics:

High Pressure Physics and Materials Science

- Methods and techniques of high pressure physics research
- Matter properties and equation of state at extreme conditions
- High pressure materials science

Fundamental Physics at Extremes

- Atomic physics, nuclear physics and plasma physics at extremes
- Radiation and high energy particle generation and transport

- Innovative accelerators
- Laser-plasma interaction
- Laboratory astrophysics

Extremes Laser- and Particle Beam Fusion

- Laser and particle beam fusion physics
- Experiments and diagnostics
- Target fabrication
- Lasers, laser propagation and optics including advanced materials response to high energy lasers and advanced manufacturing
- Material response to radiation (particle and photon)

Science and Technology at Extremes based on XFEL

- XFEL facilities and frontier technology
- High energy density physics based on XFEL
- Materials at extreme condition based on XFEL

Fluid Interface Instability at Extremes

- Generation method of extreme conditions
- Advanced testing technology under extreme conditions
- Rayleigh-Taylor instability under extreme conditions
- Richtmyer-Meshkov instability under extreme conditions
- Complex flow and turbulence mixing under extreme conditions

Important dates

Abstract Submission Deadline: Feb. 28th, 2019

Acceptance Notification Date: Mar. 31st, 2019

Conference Starting Date: May 29th, 2019

Registration fee

- Early Bird-Online Registration before Apr.30th 2019:
 - Regular: ¥ 3,000 RMB or \$450 USD
 - Student: ¥ 1,500 RMB or \$250 USD
 - Companion: ¥ 1,000 RMB or \$100 USD
- Late registration after May. 1st 2019 and on-site registration:
 - Regular: ¥ 4,000 RMB or \$600 USD
 - Student: ¥ 2,500 RMB or \$400 USD
 - Companion: ¥ 1,000 RMB or \$100 USD

Awards

- **Young Scientist Award**

To qualify for application for the Young Scientist Award, the applicant

- must be under 35 years of age on May 29th, 2019;
- should have a full length paper (at least 4 pages long), of which she/he is the principal author, submitted and accepted for oral presentation at the Conference.

*Remember to select the “Young Scientist Award” when submitting the paper and abstract.

- **Best Poster Award**

Any contributors for poster presentation are welcome to apply for the Best Poster Award. *Please remember to select the checkbox of “Best Poster Award” when submitting the abstract.

Call for Papers

Supporting journal *Matter and Radiation at Extremes (MRE)* is open for submission on <https://mre.peerx-press.org/>.

Access for detailed information about MRE:

<http://www.journals.elsevier.com/matter-and-radiation-at-extremes> (before Dec. 31st, 2018)

<https://aip.scitation.org/journal/mre> (after Jan 1st, 2019)

Hosts

Institute of Fluid Physics, China Academy of Engineering Physics
University of Science and Technology of China

Co-Hosts

Matter and Radiation at Extremes
Institute of Applied Physics and Computational Mathematics, Beijing
Laser Fusion Research Center, China Academy of Engineering Physics
Xi’an Jiaotong University

Chairs

General Chairs: Weiyan Zhang, E. M. Campbell

Co-Chairs: Hokwang Mao, Duohui He, Thomas Cowan

Local Chairs: Qiang Wu, Xisheng Luo

International Technical Committee

Chairs: Simon Redfern, Yalin Lu

Members (in alphabetic order): Yan Bi, Robert Bingham, Gilbert Collins, David Crandall, Jianjun Deng, Yongkun Ding, Daniel Eakins, Duanwei He, Manuel Hegelich, Dieter Hoffmann, Shao'en Jiang, Ke Lan, Sergey Lebedev, Bingbing Liu, Shengnian Luo, Keith Matzen, Masakatsu Murakami, Bucur M. Novac, Predrag Krstic, Caterina Riconda, Ravi Samtaney, Jian Sun, Kazoo Tanaka, Naresh Thadhani, Yongjun Tian, Vladimir Tikhonchuk, Jianguo Wang, Stefan Weber, Yuhong Xu, Qiang Zhang, Yongtao Zhao, Wanguo Zheng

Local Organizing Committee

Chair: Hongliang He

Members (in alphabetic order): Xiaoliang Deng, Juchun Ding, Jinmei Du, Shenghong Huang, Ying Huang, Tianhui Li, Xiaoya Li, Xin Peng, Jieru Ren, Ting Si, Yujuan Wang, Yi Wei, Rui Yan, Hao Yang, Lanjun Yang, Zhigang Zhai, Wenkang Zou

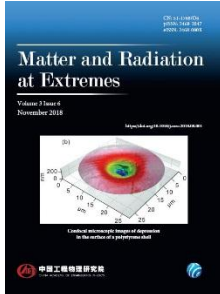
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Matter and Radiation at Extremes



In recent years, significant scientific advances have been made in matter and radiation at extremes. Matter and Radiation at Extremes (MRE) is committed to the publication of original research and comprehensive and in-depth review papers in all areas of experimental and theoretical physics on matter and radiation at extremes. It is a peer-reviewed, fully open-access, bimonthly journal. Up to now, MRE has published more than 80 quality papers, with more than 300 citations and over 100,000 downloads world widely. It has been indexed in ESCI, WoS, Scopus databases. Beginning from 2019, MRE will be published by AIP Publishing to increase its global impact and reach. AIP Publishing, a customer-focused, not-for-profit publisher that can provide individual attention and professional expertise, will make its full suite of publishing services available to CAEP, providing support from submission through to publication, including subject-matter expert language editing for all accepted manuscripts.

Learn more about MRE on its homepage: mre.aip.org.

1st International Conference in Innovative Fusion Approaches (ICIFA)

The 1st International Conference in Innovative Fusion Approaches (ICIFA) will be held on May 20-23, 2019 in Xi'an, China. It is organized by Xi'an Jiaotong University, with Prof. Xian-Geng Zhao as the Chair and Prof. Xian-jun Yang, Prof. Francis Thio and Prof. Yong-tao Zhao as the Co-Chairs. The topics mainly include Progresses on fusion energy, Magnetic-inertial-fusion (MIF), Heavy-ion-driven inertial fusion (HIF), Z-pinch and other approaches, Related technique and applications. The conference aims to provide a good platform for scholars and researchers to discuss the latest developments and achievements in the field of innovative fusion science and applications. Website: <http://icifa.xjtu.edu.cn>

The beautiful city of Hefei

Hefei, the capital city of Anhui Province, has a history of more than 2200 years.

Mountain Huangshan, located in Hefei, is one of Chinese 10 best-known scenic spots, distinguished for the strange pines, absurd stones, sea of clouds and hot springs.



Huang Mei is a major Hefei opera drama, standing out as one of the five operas in China together with Beijing Opera, Yue Opera, Ping Opera and Yu Opera.