



2019.06.07

# First Announcement on 3<sup>rd</sup> Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2019)

November 4-8, 2019  
Crown Plaza Hotel, Hefei, Anhui, China

Organized by AAPPS-DPP

Hosted by Department of Engineering and Applied Physics, USTC

AAPPS-DPP held 1<sup>st</sup> Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2017) during 18-23, September 2017 in Chengdu, China (<http://aappsdpp.org/DPPP2017rogramlatest/index.html>) and the 2<sup>nd</sup> Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2018) during 12-17, November 2018 in Kanazawa, Japan (<http://aappsdpp.org/DPP2018/index.html>), successfully. AAPPS-DPP will have 3<sup>rd</sup> annual conference in Hefei. This conference is the annual plasma physics conference in Asia-Pacific region, similar to the APS-DPP and EPS-DPP conferences on plasma physics.

## [1] Scope of the AAPPS-DPP2019:

AAPPS-DPP2019 is a plasma physics conference under the authority of AAPPS-DPP for scientific discussions on plasma physics. This conference should be physics oriented and provide interdisciplinary and in-depth discussions among and in various fields of plasma physics and application.

[2] **Date:** November 4(Monday) -8(Friday), 2019

[3] **Conference Venue:** Crown Plaza Hotel: Building A, No.598 Huangshan Road, Hefei, 230088, China

## [4] Organization:

AAPPS-DPP (<http://aappsdpp.org/AAPPSDPP/>) is organizing body of this conference.

[5] **Host:** AAPPS-DPP 2019 is hosted by Department of Engineering and Applied Physics, USTC

## [6] Endorsement/ Recognition/Sponsor

### Endorsed by,

1. APS-DPP: Division of plasma physics, American Physical Society <https://www.aps.org/units/dpp/>
2. JPS: Physical society of Japan <https://www.jps.or.jp/english/>
3. JSAP: Japan society of applied physics <https://www.jsap.or.jp/english>
4. CPS-DPP: Division of plasma physics, Chinese physical society
5. KPS-DPP: Division of plasma physics, Korean physical society
6. PSSI: Plasma science society of India <http://www.pssi.in/>
7. ASJ: Astronomical society of Japan <http://www.asj.or.jp/en/>
8. CAS: Chinese Astronomical Society <http://english.astronomy.pmo.cas.cn>
9. ASI: Astronomical society of India <https://www.astron-soc.in/>
10. SGESPP: Society of Geomagnetism and Earth, Planetary and Space Science (SGEPSS) <http://www.sgepss.org/sgepss/index-e.html>
11. CSSR: Chinese society of Space Research <http://www.cssr.org.cn/pages/kxxhweb/jianjie.htm>
12. JSAP: Japan Society of Applied Physics <http://annex.jsap.or.jp/> (tbc)
13. CMS-DPP: Division of plasma physics, Chinese society of theoretical and applied mechanics <http://en.cstam.org.cn/>
14. LSJ: The Laser society of Japan <http://www.lsj.or.jp/LSJHP/LSJindex.html>
15. CPS-DHEDP: Division of High Energy Density Physics, Chinese Physical Society
16. JSPF: The Japan society of Plasma Science and Nuclear Fusion Research <http://www.jspf.or.jp/eng/>
17. CNS-NFPP: Division of nuclear fusion and plasma physics, Chinese Nuclear Society
18. AAAPT: Asian African Association for Plasma Training <http://www.aaapt.org/>
19. Australian ITER Forum <https://fusion.ainse.edu.au/>

### Recognized by,

1. Chinese Astronomical Society <http://english.astronomy.pmo.cas.cn/>
2. EPS: European Physical Society <https://www.eps.org/>

### Financially supported by,

1. China International Nuclear Fusion Energy Program Execution Center
2. Hefei Municipal Bureau of Science and Technology
3. APCTP (Asia Pacific Center for Theoretical Physics) <https://www.apctp.org/main/>
4. Top Glove Foundation <http://www.topglove.com/top-glove-foundation/>
5. ENN Sci. & Tech Co. Ltd. <http://www.ennresearch.com/>
6. National Natural Science Foundation of China
7. Southwestern Institute of Physics
8. Institute of Plasma Physics, Chinese Academy of Sciences
9. University of Science and Technology of China
10. School of Physical Sciences, University of Science and Technology of China
11. Department of Engineering and Applied Physics, University of Science and Technology of China
12. Key Laboratory of Geospace Environment, Chinese Academy of Sciences
13. IFE Forum



### [7] Scientific Program

3<sup>rd</sup> Asia-Pacific conference on Plasma Physics will cover following sub-disciplines of plasma physics.

1. CD Cross-disciplinary (Focused Topics)
2. F Fundamental plasma (Focused Topics)
3. B Basic plasma
4. A Applied plasma
5. L Laser plasma
6. SG Space plasma & Geomagnetism
7. SA Solar & Astro plasma
8. MF Magnetic Fusion plasma

1) CD focused topics: Nonlinear Wave-Particle Interaction, Transitions, Relaxation

2) F focused topics: The "Fundamental" category is for presentations that have universal impact disseminating to wide area of sciences. In this conference, F-PC chair will try to call contribution aiming at dissemination to general science. The sessions will be built around the following four subjects: 1. Nonlinear physics (including Hamiltonian structure, integrability, chaos, turbulence, etc.), 2. Linear theory (including spectral analysis, non-Hermitian system, symmetry breaking/chirality, etc.), 3. Statistical physics (including entropy, non-equilibrium system, SOC, turbulence, etc.), 4 Modeling (including toy model, topological dynamics, quantum/relativistic system, etc.)

3) "Basic" session will cover a variety of subjects in basic plasma physics (including topics on plasma diagnostics, numerical simulation, dusty plasma, plasma source, propulsion, and heating systems).

### [8] Important Dates

|   |   |
|---|---|
| Deadline for nomination of plenary and invited speakers         | Feb 28 -> Extended to March 15 (Finished)   |
| Deadline for nomination of 2019 S. Chandrasekhar Prize          | March 31 -> Extended to April 15 (Finished) |
| Deadline for nomination of 2019 Innovation Prize (New)          | March 31 -> Extended to April 15 (Finished) |
| Notification of plenary and invited speakers                    | Mid April -> May 22 (Finished)              |
| Deadline for application to Financial Assistance                | May 31 -> Closed                            |
| Deadline for nomination of DPP young research award             | May 31 -> Extended to June 15               |
| Deadline for nomination of U30 Doctoral Scientist/Student award | May 31 -> Extended to June 15               |
| Call for contributed presentation (oral/poster)                 | April 1- June 15 -> Extended to June 30     |
| Call for post deadline (poster)                                 | June 21 - September 20                      |
| Deadline for VISA application                                   | September 30                                |
| Deadline for early registration                                 | September 1                                 |
| Deadline for final registration                                 | October 1                                   |
| Conference  | Nov. 4-8                                    |

### [9] Basic Structure of Scientific Program

Conference will run from Monday (4 Nov.) to Friday (8 Nov.). Morning sessions will be plenary session (no parallel session) in principle which may include ~36 plenaries (30 minutes) and 9 summaries. Afternoon session will be dedicated for parallel sessions. Number of invited speakers (25 minutes) would be 336 for above 9 fields. Number of orals (15 minutes) would be 336. Posters up to 300 are welcomed.

1 session: 120min= 25min x 3+ 15min x 3. Each sub-discipline has 8 parallel session + 1 poster session

So, 24 invited + 24 orals for each (CD, F, B1, B2, A1, A2, L1, L2, SG, SA, MF1, MF2)

CD, F, SG, SA: 24 invited+24 orals, B, A, L, MF: 48 invited + 48 orals.

Details are subject to change.

| 11.04 (Monday)              | 11.05 (Tuesday)             | 11.06(Wednesday)            | 11.07(Thursday)             | 11.08(Friday)               |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 7:00: Registration start    | 7:00: Registration start    | 7:00: Registration start    | 7:00: Registration start    | 7:00: Registration start    |
| 8:30-10:00:Opening          | 8:00-8:30:P5                | 8:00-8:30:P14               | 8:00-8:30:P23               | 8:00-10:00:Parallel session |
|                             | 8:30-9:00:P6                | 8:30-9:00:P15               | 8:30-9:00:P24               | CD, F, B1, B2, A1, A2,      |
|                             | 9:00-9:30:P7                | 9:00-9:30:P16               | 9:00-9:30:P25               | L1, L2, SG, SA, MF1,        |
|                             | 9:30-10:00:P8               | 9:30-10:00:P17              | 9:30-10:00:P26              | MF2                         |
|                             | 10:00-10:30:P9              | 10:00-10:30:P18             | 10:00-10:30:P27             | 10:00-10:30: Coffee break   |
| 10:00-11:00:Photo&Coffee    | 10:30-11:00: Coffee break   | 10:30-11:00: Coffee break   | 10:30-11:00: Coffee break   | 10:30-11:00:P32             |
| 11:00-11:30:P1              | 11:00-11:30:P10             | 11:00-11:30:P19             | 11:00-11:30:P28             | 11:00-11:30:P33             |
| 11:30-12:00:P2              | 11:30-12:00:P11             | 11:30-12:00:P20             | 11:30-12:00:P29             | 11:30-12:00:P34             |
| 12:00-12:30:P3              | 12:00-12:30:P12             | 12:00-12:30:P21             | 12:00-12:30:P30             | 12:00-12:30:P35             |
| 12:30-13:00:P4              | 12:30-13:00:P13             | 12:30-13:00:P22             | 12:30-13:00:P31             | 12:30-13:00:P36             |
| 13:00-14:00: Lunch break    | 13:00-14:00: Lunch break    | 13:00-14:00: Lunch break    | 13:00-14:00: Lunch break    | 13:00-14:00:Lunch break     |
| 14:00-16:00:Parallelsession | 14:00-16:10:Parallelsession | 14:00-16:10:Parallelsession | 14:00-16:10:Parallelsession | 14:00-14:30:P37CDsummary    |
| CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | 14:30-15:00:P38 F summary   |
| L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | 15:00-15:30:P39 B summary   |
|                             |                             |                             |                             | 15:30-16:00:P40 A summary   |
|                             |                             |                             |                             | 16:00-16:30:P41 L summary   |
| 16:00-16:30: Coffee break   | 16:00-16:30: Coffee break   | 16:00-16:30: Coffee break   | 16:00-16:30: Coffee break   | 16:30-17:00:P42SGsummary    |
| 16:30-18:30:Parallelsession | 16:30-18:30:Parallelsession | 16:30-18:30:Parallelsession | 16:30-18:30:Parallelsession | 17:00-17:30:P43SAsummary    |
| CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | CD, F, B1, B2, A1, A2, L1   | 17:30-18:00:P44MFsummary    |
| L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | L2, SG, SA, MF1, MF2        | 18:00-19:00: Poster prize   |
|                             |                             |                             |                             | & Closing                   |
| 19:00-22:00 Reception       | 19:00-21:00 tbd             | 19:00-20:00                 | 19:00-22:00: Banquet        |                             |
|                             |                             | DPP general Assembly        |                             |                             |

#### [10] Registration fee

| Registration fee    | Early fee (before Sept. 1) | Final (Before Oct. 1) | Note                                    |
|---------------------|----------------------------|-----------------------|---|
| Member              | 500 US\$                   | 600 US\$              | Same for endorsed/recognizing societies |
| Non-member          | 600 US\$                   | 700 US\$              |   |
| Student and retired | 250 US\$                   | 300 US\$              |   |

**Note 1:** In Kanazawa, we had a few ten's of speakers who did not come without payment of registration fee. **We will delete speakers from the program who do not pay registration fee** until final registration deadline (Oct. 1) to minimize loss of large number of conference bags, souvenirs, and printed programs.

**Note2:** Conference program will be finalized based on registration fee payment as of Oct. 1. Registration after Oct. 1 is limited to participants who do not give presentation.

**Note 3:** Member fee is applied to AAPPS-DPP members and members of endorsed societies. Registration fee includes 1) Admission to all conference sessions and 2) Conference Materials. Coffee break and welcome reception are free of charge.

**Note 5:** Registration fee may be waived for a limited number of peoples from developing countries or retired persons who will give presentation. Please visit <http://aappsdpp.org/DPP2019/financialassistance.html>.

**a) Welcome reception:** There will be a free reception on Monday evening (Nov. 5) 19:00-21:00. Place will be noticed later.

**b) Lunch ticket:** Buffet in Crown Plaza Hefei is recommended. The buffet is \$13/person.

**c) Conference diner:** Conference diner will be held on Thursday evening (Nov. 7)19:00-22:00. Place and how to purchase dinner ticket will be noticed later.

**d) Conference tour:** tbd

#### [11] VISA requirement

Participants who need VISA should contact LOC at [myfang@ustc.edu.cn](mailto:myfang@ustc.edu.cn). There is an online form in the Google docs. Any person who need apply Chinese Visa, please fill the following form. Once the necessary information has been collected, we will send the official invitation letter for the visa application ASAP.

The form link is <https://forms.gle/KGCMVvZRftcz1QkHA>

Deadline for VISA process is **September 30 (strict deadline)** and LOC will send invitation letter who paid registration fee. In case participant can't come, paid fee will be reimbursed with some cost.

#### [12] Financial assistance

There will be limited resources to assist contributors from developing countries or retired persons who will give presentation. We closed application on May 31. <http://aappsdpp.org/DPP2019/financialassistance.html>.



**[13] Hotel information**


LOC reserved a block of rooms in Crown Plaza Hefei (<http://hotel-rez.com/hw/a401754/location.html>) and Best Western Premier Hotel Hefei behind.








Crown Plaza Hefei (center) and Best Western Premier Hotel Hefei (left)



# [14] Plenary Speakers

| #  | Photo   | Name              | Affiliation                                 | Talk title  |
|----|---|-------------------|---|---|
| P1 |   |                   |   | Innovation prize winner (1)   |
| P2 |   |                   |   | Innovation prize winner (2)   |
| P3 | Host plenary  |                   |   |   |
| P4 |    | Chi Wang          | National Space Center, CAS                  | The SMILE mission: science and technical status   |
| P5 |   |                   |   |   |
| CD |    | Weixing Wang      | PPPL  | ExB shear flow structure and plasma self-driven current generation in magnetic island                                   |
| CD |    | David Hughes      | University of Leeds                         | Dynamo action in rapidly rotating convection with no inertia  |
| CD |    | Xavier Garbet     | CEA   | Entropy and relaxation processes  |
| CD |    | Yoshifumi Kimura  | Nagoya University                           | Vortex reconnection and a finite-time singularity of the Navier-Stokes equations  |
| F  |    | Vinod Krishan     | Indian Institute of Astrophysics, Bangalore | Novelties in Partially Ionized Plasmas  |
| F  |   | Dominique Escande | Aix-Marseille University                    | Relation of the Vlasovian and of the N-body descriptions of microscopic plasma physics                                  |
| F  |  | Philip Morrison   | The University of Texas at Austin           | Hamiltonian Description of Plasma and other Matter  |
| B  |  | Lin I             | National Central University                 | Cooperative excitations in dusty plasma liquids and nonlinear dust acoustic waves: from order to turbulence             |
| B  |  | Fredrick Skiff    | University of Iowa                          | Observing plasma kinetic degrees of freedom using advanced diagnostics  |
| B  |  | Troy Carter       | UCLA  | Overview of the Basic Plasma Science Facility: the physics of waves relevant to space, astrophysical and fusion plasmas |
| B  |  | Jiayu Dai         | National University of Defense Technology   | Electron-ion coupled dynamics and structures in warm dense plasmas  |
| A  |  | Young-Hoon Song   | Korea Institute of Machinery and Materials  | Application of plasma technologies for air pollution control  |
| A  |  | Uwe Czarnetzki    | Ruhr-Universität                            | Collisionless electron heating in low-pressure discharges   |
| A  |  | Seiji Samukawa    | Tohoku University                           | Atomic Layer Etching, Deposition and Modification Processes for Novel Nano-materials and Nano-devices                   |
| A  |  | Jin-Xiu Ma        | USTC  | Basic experiments on ion waves excitation and propagation   |

|    |   |                    |  |  |
|----|---|--------------------|--|--|
| L  |    | Michel Koenig      | Ecole Polytechnique                          | Overview of Laboratory Astrophysics Experiments at LULI  |
| L  | L   | Baifei Shen        | Shanghai Normal University                   | Physics for laser power from 1 PW to 100 PW  |
| L  |    | Hitoki Yoneda      | University of Electro-Communications         | Progress of inner-shell ionized hard x-ray laser pumped by intense XFEL pulses                           |
| L  |    | Chang Hee Nam      | IBS  | Exploration of nonlinear Compton scattering between a laser-accelerated GeV electron beam and a PW laser |
| SG |    | Yoshiharu Omura    | Kyoto University                             | Dynamic variation of Earth's outer radiation belt due to nonlinear wave-particle interactions            |
| SG |    | James Drake        | University of Maryland                       | Confronting reconnection simulations with MMS observations   |
| SG |   | Chuanyi Tu         | Peking University                            | New observations and new thoughts on solar wind turbulence   |
| SG |    | Gurbax Lakhina     | Indian Institute of geomagnetism             | Boundary Layer Waves in Space Plasmas  |
| SA |    | Alexandre Lazarian | University of Wisconsin-Madison              | Intimate Connection of Astrophysical Magnetic Reconnection and Turbulence                                |
| SA |   | JinLin Han         | National Astronomical Observatories of China | Observing Interstellar and Intergalactic Magnetic Fields   |
| SA |  | Jie Jiang          | Beihang University                           | Predictability of Solar Cycle  |
| SA |  | Ryoji Matsumoto    | Chiba University                             | Magnetic Activities of Black Hole Accretion Disks  |
| MF |  | Xianzu Gong        | ASIPP  | Overview of experimental results in EAST Tokamak   |
| MF |  | Min Xu             | Southwestern Institute of Physics            | Advances in understanding of turbulent transport and confinement improvement in the HL-2A tokamak        |
| MF | MF  | Si-Woo Yoon        | National Fusion Research Institute           | Overview of KSTAR results and Plan   |
| MF |  | Richard Buttery    | General Atomics                              | The Advanced Tokamak Path to a Compact Fusion Pilot Plant  |
| 37 |  | P.D. Diamond       | UCSD   | Summary of Cross Disciplinary session  |
| 38 |  | Zensho Yoshida     | The University of Tokyo                      | Summary of Fundamental plasma session  |
| 39 |  | Tomohiko Watanabe  | Nagoya University                            | Summary of Basic plasma session  |

|    |   |               |                     |  |
|----|---|---------------|---------------------|--|
| 40 |  | Yi-Kang Pu    | Tsinghua University | Summary of Applied plasma session                |
| 41 |  | Jie Zhang     | SJTU                | Summary of Laser plasma session                  |
| 42 |  | Xiaohua Deng  | Nanchang University | Summary of Space plasma and Geomagnetism session |
| 43 |  | Peng-Fei Chen | Nanjing University  | Summary of solar and astro plasma session        |
| 44 |  | Hyeon Park    | UNIST               | Summary of magnetic fusion plasma session        |
|    |   |               |                     |  |

### [15] Invited Speakers

| Field | Name                | Affiliation                | Talk title   |
|-------|---------------------|----------------------------|--|
| CD/1  | Li-Feng Wang        | IAPCM                      | Progress on weakly nonlinear hydrodynamic instabilities in spherical geometry  |
| CD/2  | Ting Long           | SWIP                       | Studies of Reynolds Stress and the Turbulent Generation of Edge Poloidal Flows on the HL-2A Tokamak  |
| CD/3  | Peng Shi            | HUST                       | Experimental Investigations of MARFE and Density Limit on J-TEXT Ohmic Plasma  |
| CD/4  | Kohei Inayoshi      | Peking University          | Rapid black hole formation and growth  |
| CD/5  | Zhibin Guo          | Peking University          | How Phase Patterning Drives and Saturates Zonal Flow   |
| CD/6  | Lu Wang             | HUST                       | Intrinsic current driven by electromagnetic electron temperature gradient turbulence in tokamak plasmas  |
| CD/7  | Maxime Lesur        | Lorraine University        | Description of turbulent transport in the velocity space   |
| CD/8  | Julian Mark         | University of Oxford       | Role of energetically constrained turbulent transport coefficients in ocean climatology  |
| CD/9  | Srimanta Maity      | IPR                        | Equilibrium structure formation and dynamical response of strongly coupled dusty plasmas: A Molecular Dynamics study   |
| CD/10 | Kiori Obuse         | Okayama University         | Zonal flow formation in two-dimensional Rossby wave turbulence on a rotating sphere  |
| CD/11 | Michikazu Kobayashi | Kyoto University           | Theoretical study of quantized vortices and quantum turbulence   |
| CD/12 | Shigeru Inagaki     | Kyushu University          | Flows, Waves and Turbulence in Laboratory Plasma   |
| CD/13 | Naoto Yokoyama      | Osaka University           | Energy fluxes in anisotropic turbulence  |
| CD/14 | Kenichiro Terasaka  | Kyushu University          | Inhomogeneous neutral gas flow field structure in a partially ionized ECR plasma   |
| CD/15 | Takeshi Ido         | NIFS                       | Nonlinear wave-particle interaction in magnetized high temperature plasmas confined in Large Helical Device  |
| CD/16 | Yusuke Kosuga       | Kyushu University          | Interplay among 3D flows in turbulent plasmas  |
| CD/17 | Yuejiang Shi        | Seoul National University  | New experimental findings of non-local transport in J-TEXT and KSTAR   |
| CD/18 | Patrick Diamond     | UCSD                       | Spontaneous Transport Barriers Quench Turbulent Resistivity in 2D MHD  |
| CD/19 | George Tynan        | UCSD                       | Generation of intrinsic parallel flows from drift turbulence with broken symmetry  |
| CD/20 | Linda Sugiyama      | MIT                        | Steady States for Solar Coronal Loops  |
| CD/21 | Weixin Guo          | HUST                       | Scale selection and feedback loops for patterns in drift wave-zonal flow turbulence  |
| F/1   | Tao Wang            | Zhejiang University        | Hybrid simulations of shear Alfvén fluctuations in burning fusion plasmas  |
| F/2   | Jianxing Li         | Xi'an Jiaotong University  | Determination of the Carrier-envelope phase of PW laser pulses and generation of spin-polarization relativistic electron beams via a single-shot ultra-intense laser pulse |
| F/3   | Tomoo Yokoyama      | Kyoto University           | Topological fluid data analysis: COT representations of surface flows and their implementations  |
| F/4   | Rong Zou            | Zhejiang Normal University | Three-dimensional azimuthal magnetorotational instability of a MHD flow  |



|      |                       |  |   |
|------|-----------------------|--|---|
| F/5  | Naoki Sato            | Kyoto University                               | Local Clebsch parametrization of Beltrami equilibria  |
| F/6  | Pavel Andreev         | Lomonosov Moscow State University              | Hydrodynamic representation of the many-particle spin-1/2 Pauli equation for quantum plasmas  |
| F/7  | Yasuhiko Igarashi     | University of Tokyo                            | Sparse modeling for a data-driven approach in Plasma Physics  |
| F/8  | Natalia Tronko        | Max Planck für Plasmaphysik                    | Geometrically reduced kinetic simulations of fusion plasmas   |
| F/9  | Michael Wheatland     | The University of Sydney                       | Magnetic helicity and open magnetic fields  |
| F/10 | Dhairya Malhotra      | New York University                            | A boundary integral equation solver for computing Taylor states in toroidal geometries  |
| F/11 | Zhisong Qu            | ANU  | Stepped pressure equilibrium with flow  |
| F/12 | Zhe Gao               | Tsinghua University                            | Theory of Quasi-mode Parametric Decay in Plasmas  |
| F/13 | Yao Zhou              | PPPL   | Variational integration for ideal MHD and formation of current singularities  |
| F/14 | Antoine Cerfon        | New York University                            | Integral equation methods for magnetic confinement fusion   |
| F/15 | Masaru Furukawa       | Tottori University                             | MHD equilibria via simulated annealing and their stability -- negative energy modes and additional constraints  |
| B/1  | Ke Yao                | Fudan University                               | Resonant electron ion recombinations: reliable atomic data for high temperature plasmas   |
| B/2  | Amar Prasad Misra     | Visva-Bharati University                       | Stimulated scattering in relativistic plasmas   |
| B/3  | Nareshpal Singh Saini | Guru Nanak Dev University                      | Interaction of solitons and shocks in dusty plasmas   |
| B/4  | Modhuchandra Laishram | USTC   | A dusty plasma model for characteristics of vortices in Jupiter's atmosphere  |
| B/5  | Weili Fan             | Hebei University                               | Self-organized pattern formation in dielectric barrier discharge and kinetic simulations  |
| B/6  | Tobias Dornheim       | Helmholtz-Zentrum Dresden Rossendorf           | Ab initio simulations of warm dense matter  |
| B/7  | Pallavi Trivedi       | IPR  | Kinetic Eulerian Simulation of Electrostatic Phase Space Vortices (PSVs) In A Driven-Dissipative Vlasov-Poisson System  |
| B/8  | Zhihong Lin           | UC Irvine                                      | Verification and Validation of Integrated Simulation of Energetic Particles in Toroidal Plasmas   |
| B/9  | Shunjiro Shinohara    | Tokyo University of Agriculture and Technology | Development of Electrodeless Thruster using High-Density Helicon Plasma Sources   |
| B/10 | Akira Kageyama        | Kobe University                                | 4-D Street View: Movie-based visualization method for HPC   |
| B/11 | Kazunori Takahashi    | Tohoku University                              | Many aspects of plasma expansion physics in the magnetic nozzle and space applications  |
| B/12 | Taiichi Shikama       | Kyoto University                               | Detection of anisotropy in the electron velocity distribution produced by electron cyclotron resonance heating using the polarization of helium atom emission lines |
| B/13 | Hiroyuki Takahashi    | Tohoku University                              | Application of an RF plasma source for divertor plasma study and its recent results   |
| B/14 | Ashild Fredriksen     | The Arctic University of Norway                | On the ion beams and energetic electrons through a current-free double layer (CFDL)   |
| B/15 | Masafumi Yoshida      | Yamaguchi University                           | Property for production of the hydrogen negative ions by surface production process on the inner surface of the aperture  |
| B/16 | Yan Feng              | Soochow University                             | Shear modulus of 2D dusty plasma solids   |
| B/17 | Shogo Isayama         | National Central University                    | Underlying mechanisms in the dynamic profile formation of high-density helicon plasma   |
| B/18 | Khare Avinash         | Central University of Sikkim                   | Phase transitions in gravitational dusty plasmas  |
| B/19 | Cheng-Ran Du          | Donghua University                             | Study of wave spectra of square-lattice domains in a disordered q2D binary complex plasma   |
| B/20 | Hiroshi Tanabe        | University of Tokyo                            | Full-2D imaging measurement of ion heating/transport process during high field merging experiment in TS-6   |
| B/21 | Yang Yang             | Fudan University                               | High resolution x-ray spectroscopy of Tungsten and Molybdenum for fusion diagnostic   |
| B/22 | Jianguan Xiao         | USTC   | Structure-preserving Geometric Particle-in-Cell Algorithms  |
| B/23 | Kenneth Gentle        | Inst. Fusion Studies, Univ. Texas at Austin    | The Nonlinearly Saturated State of Strong Interchange Turbulence  |
| B/24 | Weiwen Xiao           | IFTs, ZJU, China                               | Experimental research on particle transport in Tokamak plasmas  |
| B/25 | Mohammed Koubiti      | Aix-Marseille Université                       | Reviewing spectroscopic techniques used for divertor plasmas of magnetic fusion devices   |
| B/26 | Daniele Bonfiglio     | CNR - Consorzio RFX                            | Nonlinear MHD modelling of helical self-organization in the RFP: effect of a realistic boundary and predictions for RFX-mod2  |
| B/27 | Jinbang Yuan          | Southwestern Institute of                      | Gas Puff Imaging Measurements During Resonant Magnetic Perturbations on   |



|       |                          |  |  |
|-------|--------------------------|--|--|
|       |                          | Physics  | HL-2A Tokamak  |
| B/28  | Richard Sydra            | University of Alberta, Canada                        | Stimulated Excitation of Thermal Waves in Magnetized Plasmas and Use in Thermal Conductivity Measurement   |
| B/29  | Seong Ling Yap           | University of Malaya, Malaysia                       | Optimization of deuteron beam yield in a low-energy dense plasma focus device  |
| B/30  | Rui Ke                   | Southwestern Institute of Physics                    | Observation of energetic particle transport via passive beam emission spectroscopy diagnostic system on HL-2A tokamak                                  |
| B/31  | Chunfeng Dong            | Southwestern Institute of Physics                    | Estimation of tungsten influx rate and study of edge tungsten behavior based on the observation of EUV line emissions from W6+ ions in HL-2A           |
| A/1   | Michael Keidar           | George Washington University                         | Adaptive plasmas for biomedicine   |
| A/2   | Wei-Hung Chiang          | National Taiwan University of Science and Technology | Nanostructure Engineering using Microplasmas toward Functional Nanomaterials Synthesis and Applications  |
| A/3   | Alejandro Alvarez Laguna | Ecole Polytechnique, Palaiseau                       | Hybrid modeling of the anomalous transport inside Hall thrusters   |
| A/4   | Deepak Subedi            | Kathmandu University                                 | Dielectric Barrier Discharge with transparent electrodes   |
| A/5   | Shuqun Wu                | Nanjing University of aeronautics and astronautics   | High-electron-density microplasmas generated inside capillaries  |
| A/6   | Makoto Kambara           | The University of Tokyo                              | High throughput production of silicon nanorod from powder feedstock by plasma flash evaporation  |
| A/7   | Shinya Kumagai           | Meijo University                                     | Plasma-on-Chip: A microdevice for irradiating single cells with non-thermal atmospheric pressure plasma  |
| A/8   | Hiroshi Akatsuka         | Tokyo Institute of Technology                        | Optical emission spectroscopic (OES) analysis of electron temperature and density in atmospheric-pressure non-equilibrium argon plasmas                |
| A/9   | Wonho Choe               | KAIST  | Plasma-Functionalized Solution: A Potent Antimicrobial Agent for Biomedical and Plasma Farming Applications  |
| A/10  | Hiroataka Toyoda         | Nagoya University                                    | One-dimensionally long-scale atmospheric-pressure plasma for large-area surface treatment  |
| A/11  | Ryuta Ichiki             | Oita University                                      | Nitrogen doping technique with dielectric barrier discharge under high temperature   |
| A/12  | Kazunori Koga            | Kyushu University and NINS                           | Impact of Atmospheric Pressure Plasma Irradiation to Seeds on Agricultural Productivity  |
| A/13  | Hiroshi Hashizume        | Nagoya University                                    | Improvement of growth and yield of rice plants with plasma treatment   |
| A/14  | Manabu Tanaka            | Kyushu University                                    | Generation of innovative thermal plasma with diode-rectification technique   |
| A/15  | Se Youn Moon             | Chonbuk National University                          | Atmospheric pressure plasma surface modification: from surface treatment to thin film deposition   |
| A/16  | Raju Bhai Tyata          | Tribhuvan University                                 | Surface Modification of Polymers and Textiles by Atmospheric Pressure Argon Glow Discharge   |
| A/17  | Suresh Sharma            | Delhi Technological University                       | Effect of Process Parameters on the Growth and Field Emission Properties of Graphene -Carbon Nanotube Composite  |
| A/18  | Hai-Xin Wang             | Beihang University                                   | Chemical non-equilibrium simulation of arc attachment on anode of a high-intensity transferred arc   |
| A/19  | Cheng Zhang              | Institute of Electrical Engineering, CAS             | The discharge propagation and the evolution of electric field and surface charge in nanosecond-pulse surface dielectric barrier discharge              |
| L/SP1 | Stuart Mangles           | Imperial College London                              | Laser wakefield accelerators as tools for studying extreme conditions  |
| L/SP2 | Chuan Sheng Liu          | University of Maryland                               | Raman scattering: A summary of five decades of theory, experiment and simulations  |
| L/SP3 | Ryosuke Kodama           | Osaka University                                     | Exploration of high energy density science in various scales of structures with high power lasers  |
| L/SP4 | Ke Lan                   | IAPCM, Beijing                                       | Progress in spherical hohlraum studies and experimental campaign on high energy laser facilities in China  |
| L/SP5 | Yasuaki Kishimoto        | Kyoto University                                     | Generation and application of self-organized high energy density plasma produced by the interaction between high intensity laser and structured medium |
| L/SP6 | Dimitri Batani           | Université Bordeaux                                  | Progress in shock ignition   |
| L/1   | Liming Chen              | Institute of Physics, CAS                            | Ultrahigh charge electron acceleration from solid target   |
| L/2   | Wenpeng Wang             | Shanghai Institute of Optics and Fine Mechanics, CAS | Optical manipulation of particle beam by relativistic vortex cutter  |
| L/3   | Xiaohu Yang              | National University of Defense Technology            | Transport of ultra-intense laser-driven fast electrons in dense plasmas  |
| L/4   | Min Chen                 | Shanghai Jiao Tong University                        | Recent progresses on high quality and staged laser wakefield acceleration at SJTU  |
| L/5   | Qing Jia                 | USTC   | Magnetized plasma based q-plate for generation of ultraintense optical vortices  |
| L/6   | Hong-bo Cai              | IAPCM  | Study of the kinetic effects in indirect-drive inertial confinement fusion hohlraums   |
| L/7   | Rui Yan                  | USTC   | (To be determined )  |
| L/8   | Dong Yang                | Research Center of Laser Fusion                      | (To be determined)   |
| L/9   | Wei Lu                   | Tsinghua University                                  | (To be determined)   |
| L/10  | Guang-yue Hu             | USTC   | (To be determined)   |

|       |                     |   |   |
|-------|---------------------|---|---|
| L/11  | Xian-tu He          | Peking University                                       | (To be determined)  |
| L/12  | Haifeng Liu         | IAPCM   | Equation of state in wide regime for Hydrogen: Construction and Validation  |
| L/13  | Wenchao Yan         | ELI-Beamlines, IoP, ASCR                                | Inverse Compton X/ $\gamma$ Source Based on Laser Wake-Field Accelerator  |
| L/14  | Laurent Gremillet   | CEA   | High-energy photon and pair production in ultrarelativistic laser-plasma interactions   |
| L/15  | Frédéric Pérez      | LULI  | The electromagnetic PIC code Smilei: physics, performance and highlights  |
| L/16  | Guoqian Liao        | Rutherford Appleton Laboratory                          | Intense tunable terahertz bursts from picosecond laser-foil interactions  |
| L/17  | Hamad Ahmed         | Queen's University Belfast                              | Accelerator quality beams of high-energy protons guided by intense-laser driven helical coils   |
| L/18  | Bengt Eliasson      | University of Strathclyde                               | Vlasov simulations of relativistic Raman and Compton instabilities  |
| L/19  | Dominik Kraus       | Helmholtz-Zentrum Dresden-Rossendorf                    | Ionization dynamics in CH plasmas at Gbar pressures   |
| L/20  | Mrityunjay Kundu    | Institute For Plasma Research                           | Short pulse laser cluster interaction: unification of resonances  |
| L/21  | Amit Dattatraya Lad | Tata Institute of Fundamental Research                  | Two-Dimensional (2-D), Femtosecond Resolved High Resolution Doppler Spectrometry for Spatio-Temporal Mapping of Hot-Dense Intense Laser Produced Plasma |
| L/22  | Amol Holkundkar     | Birla Institute of Technology and Science               | Higher harmonics and attosecond pulse generation by laser interaction with atomic clusters via Thomson scattering                                       |
| L/23  | Sudip Sengupta      | Institute for Plasma Research                           | Spatio-temporal evolution of Buneman instability: A Particle-in-Cell simulation study   |
| L/24  | Takayoshi Sano      | Osaka University  | Laser-plasma interaction in overdense plasmas under strong magnetic fields  |
| L/25  | Akifumi Yogo        | Osaka University  | Developments of laser neutron source and diagnostics in Japan   |
| L/26  | Masakatsu Murakami  | Osaka University  | Relativistic proton emission from ultrahigh-energy-density nanosphere generated by micro-bubble implosion   |
| L/27  | Yoshitaka Mori      | GPI   | Present status of pellet injection system for repetitive inertial confinement fusion experiments  |
| L/28  | Hideo Nagatomo      | Osaka University  | An optimum design of a cone-inserted target implosion for reactor scale Fast Ignition   |
| L/29  | Keisuke Shigemori   | Osaka University  | The role of hot electrons on ultrahigh pressure generation relevant to shock ignition conditions  |
| L/30  | Yuji Fukuda         | QST   | Quasimonoenergetic proton bunch via interactions of micron-scale hydrogen cluster targets with PW-class laser pulses                                    |
| L/31  | Youichi Sakawa      | Osaka University  | Ion acceleration by high-intensity laser-driven collisionless electrostatic shock   |
| L/32  | Taichi Morita       | Kyushu University                                       | Laser astrophysics experiments for studying collisionless shock and magnetic reconnection   |
| L/33  | Alexander Pirozhkov | QST   | BISER at the keV spectral range   |
| L/34  | Leejin Bae          | GIST  | Investigation of relativistic electron transport in solid targets irradiated by ultrahigh intensity laser pulses  |
| L/35  | Ki Hong Pae         | GIST  | Generation of a high-density high-energy proton jet from the interaction of an ultra-intense laser pulse with a thin solid target                       |
| L/36  | Kitae Lee           | KAERI   | Generation of quasi-monoenergetic ion spectra from layered targets irradiated by an ultraintense laser pulse  |
| L/37  | Domenico Doria      | Extreme Light Infrastructure - Nuclear Physics, Romania | Extreme laser-matter interaction investigation at ELI - Nuclear Physics   |
| L/38  | Hui Chen            | LLNL  | Review of New Results on Laser-produced MeV Electron-Positron Pair Experiments  |
| L/39  | Paul Mabey          | LULI  | Towards higher resolution X-ray radiography using lithium fluoride detectors  |
| L/40  | Claire Michaut      | Université de la Côte d'Azur                            | Numerical Simulations of High-Mach Number Astrophysical Radiative Flows with HADES  |
| L/41  | Feng Wang           | Laser Fusion Research Center                            | Progress of ICF Diagnostic techniques and experimental results based on Shenguang laser facility in China   |
| SG/1  | Roberto Bruno       | IFAF  | Interplanetary plasma turbulence  |
| SG/2  | Tohru Hada          | Kyushu University                                       | Anomalous transport and acceleration of cosmic rays in the presence of MHD turbulence   |
| SG/3  | Yuto Katoh          | Tohoku University                                       | Simulation study of the whistler-mode chorus generation in the Earth's inner magnetosphere  |
| SG/4  | Zhigang Yuan        | Wuhan University  | Simultaneous trapping of EMIC and MS waves by background plasmas  |
| SG/5  | Xuzhi Zhou          | Peking University                                       | Nonlinear drift resonance between charged particles and ultra-low frequency waves   |
| SG/6  | Quanqi Shi          | Shandong University                                     | Magnetic cavities in space plasmas: from MHD to kinetic scale   |
| SG/7  | Jiansen He          | Peking University                                       | Spectra of Diffusion and Dissipation Measures in Space Plasma Kinetic Turbulence  |
| SG/8  | Seiji Zenitani      | Kyoto University  | Boris-type particle solvers in particle-in-cell (PIC) simulation  |
| SG/9  | Naritoshi Kitamura  | The University of Tokyo                                 | Direct measurements of two-way wave-particle energy transfer in a collisionless space plasma  |
| SG/10 | Shuichi Matsukiyo   | Kyushu University                                       | Kinetic radial structure of heliospheric boundary   |
| SG/11 | Tomo-Hiko Watanabe  | Nagoya University                                       | Spontaneous excitation of auroral structures and Alfvénic turbulence  |
| SG/12 | Binbin Ni           | Wuhan University  | Formation of Reversed Energy Spectrum of Radiation Belt Electrons Caused by plasmaspheric Hiss Scattering   |
| SG/13 | Zhaojin Rong        | Institute of Geology and Geophysics, CAS                | A new mechanism for the flapping motions of Earth's magnetotail current sheet   |
| SG/14 | Kanako Seki         | University of Tokyo                                     | Roles of interaction between the ULF waves and energetic particles in   |

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|-------|-------------------|--|--|
|       |                   |  | acceleration of relativistic electrons in the Earth's inner magnetosphere  |
| SG/15 | Bruce Tsurutani   | California Institute of Technology                     | The Detection and Consequences of Coherent Electromagnetic Plasma Waves  |
| SG/16 | Meng Zhou         | Nanchang University                                    | MMS observations of electron diffusion regions in the Earth's magnetosphere  |
| SG/17 | Shiyong Huang     | Wuhan University                                       | Observations of Flux Ropes Associated With Magnetic Reconnection in the Earth's Magnetosphere  |
| SG/18 | Rongsheng Wang    | USTC   | Interaction of magnetic flux ropes: in situ evidence   |
| SG/19 | Fumiko Otsuka     | NIT, Kurume College                                    | Self-consistent simulation of field-aligned ion beams and upstream waves in quasi-parallel collisionless shock   |
| SG/20 | Xinliang Gao      | USTC   | Multiband chorus waves in Earth's magnetosphere  |
| SG/21 | Lican Shan        | Institute of Geology and Geophysics, CAS               | Observation study of low frequency waves at Venus and Mars   |
| SG/22 | Zhongwei Yang     | National Space Science Center, CAS                     | Analysis of energy spectra measured by New Horizons: PIC simulation results versus observations in the environment of Pluto                                  |
| SG/23 | Xin Tao           | USTC   | Nonlinear Dynamics of Electrons in Excitation of Whistler Waves with Adiabatic and Non-adiabatic Frequency Chirping  |
| SG/24 | Keizo Fujimoto    | Beihang U  | Large-scale modeling of magnetic reconnection by using an AMR code   |
| SG/25 | Vipin K Yadav     | SPL/VSSC/ISRO  | Plasma Waves in Comets   |
| SA/1  | Siyao Xu          | University of Wisconsin                                | Turbulent dynamo in a weakly ionized medium  |
| SA/2  | Quanming Lu       | USTC   | Formation of power law spectra of energetic electrons during coalescence of magnetic islands   |
| SA/3  | Rui Liu           | USTC   | Buildup of Magnetic Flux Ropes toward Eruptions in the Solar Corona  |
| SA/4  | Lei Ni            | Yunnan Observatories, CAS                              | Magnetic Reconnection in the partially ionized low solar atmosphere  |
| SA/5  | Takafumi Kaneko   | Nagoya University                                      | Evolution of dynamic internal structures of prominence in reconnection-condensation scenario   |
| SA/6  | Yanfei Jiang      | UC, Santa Barbara                                      | Radiation Magneto-hydrodynamic Simulations of Black Hole Accretion Disks   |
| SA/7  | Linghua Wang      | Peking University                                      | Solar Energetic Electron Events  |
| SA/8  | Lulu Zhao         | Florida Institute of Technology                        | Modeling the precipitation and releasing pattern of solar energetic particles in the solar corona magnetic fields  |
| SA/9  | Feng Li           | Purple Mountain Observatory                            | Understand solar eruptions with the Advanced Space-based Solar Observatory (ASO-S) mission   |
| SA/10 | Liang Xiang       | Purple Mountain Observatory                            | Evolution of proton beams in the solar wind  |
| SA/11 | Ling Chen         | Purple Mountain Observatory                            | The resonant and nonresonant instability of Kinetic Alfvén Waves driven by fast electron beams in the beam-return current system                             |
| SA/12 | Jie Jiang         | Beihang University                                     | Predictability of the solar cycle  |
| SA/13 | Yang Guo          | Nanjing University                                     | Solar Magnetic Flux Rope Eruption Simulated by a Data-driven Magnetohydrodynamic Model   |
| SA/14 | Dawei Yuan        | National Astronomical Observatories, CAS               | Experiment revealing the characteristics of Weibel instability with optical diagnostics  |
| SA/15 | Fabio Sattin      | Consorzio RFX  | Relevant heating of the solar corona by quenching Alfvén waves : a result of adiabaticity breakdown  |
| SA/16 |                   |  |  |
| SA/17 | Piyali Chatterjee | Indian Institute of Astrophysics                       | Understanding solar atmospheric dynamics through MHD simulations   |
| SA/18 | Vainhav Pant      | CmPA, KU Leuven, Belgium                               | Forward modelling of waves in the solar coronal structures   |
| SA/19 | Jiro Shimoda      | Tohoku University                                      | Blamer lines as diagnostics of collisionless shocks: acceleration of non-thermal particles, the nature of shock precursor and ion-electron temperature ratio |
| SA/20 | Kyungguk Min      | Korea Astronomy and Space Science Institute            | Potential Role of Mirror and Ion Bernstein Instabilities on scattering of Pickup Ions in the Outer Heliosheath   |
| SA/21 | Jungjoon Seough   | Korea Astronomy and Space Science Institute            | What regulates temperature anisotropy in the expanding solar wind?   |
| SA/22 | Kun-Han Lee       | Academia Sinica  | Voyager 1 observations of interstellar electron and magnetic turbulence spectra  |
| SA/23 | Minping Wan       | Southern University of Science and Technology of China | Energy cascades and dissipation in kinetic plasma turbulence   |
| SA/24 | Muni Zhou         | MIT  | Magnetic island merger as a mechanism for inverse magnetic energy transfer   |
| MF/1  | Matthew Hole      | ANU  | The impact of anisotropy on ITER scenarios and ELMs  |
| MF/2  | Henri Weisen      | EPFL and JET   | Isotope dependence of energy, momentum and particle confinement in tokamaks  |
| MF/3  | Guoyao Zheng      | SWIP   | Integrated analysis of core and edge for HL-2M operation   |
| MF/4  | Zhanhui Wang      | SWIP   | Self-consistent multi-scale integrated modeling of ELM mitigation due to SMBI  |

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| MF/5  | Guoliang Xiao    | SWIP                     | The Mechanism of ELM Mitigation with Different External Source Input on HL-2A Tokamak   |
| MF/6  | Peiwan Shi       | SWIP                     | Destabilization of beta induced and reversed shear Alfvén eigenmode on HL-2A tokamak  |
| MF/7  | Linming Shao     | ASIPP                    | Recent progress of L-H transition physics and H-mode power threshold studies in EAST  |
| MF/8  | Bo Lyu           | ASIPP                    | Overview of experimental investigation of LHCD's effect on plasma rotation on EAST  |
| MF/9  | Guosheng Xu      | ASIPP                    | Advances in understanding high-performance small/no ELM H-mode regimes  |
| MF/10 | Qiping Yuan      | ASIPP                    | Achievements of active feedback control of divertor heat load in EAST Plasma Control System   |
| MF/11 | Zhongshi Yang    | ASIPP                    | Experiments and simulations for power exhaust by impurity seeding on EAST and future devices  |
| MF/12 | Liming Yu        | SWIP                     | Observation of High-frequency Chirping Modes Driven by Energetic Ions on HL-2A  |
| MF/13 | Jun Cheng        | SWIP                     | Experimental study of the interaction between oscillation flows and turbulence across a transition to H mode in edge plasma                 |
| MF/14 | Wei Chen         | SWIP                     | Nonlinear Dynamics of Alfvén Eigenmodes in HL-2A NBI Plasmas  |
| MF/15 | Guizhong Zuo     | ASIPP                    | Improvement of plasma performance with flowing liquid lithium PFCs in EAST  |
| MF/16 | Tim Happel       | MPI for Plasma Physics   | Overview of ASDEX Upgrade I-mode results and extrapolation to future devices  |
| MF/17 | Mike Dunne       | MPI for Plasma Physics   | Pedestal physics for burning plasmas at AUG   |
| MF/18 | Jeronimo Garcia  | IRFM, CEA                | On the validity of scale invariance and power laws for describing and predicting confined plasmas   |
| MF/19 | Samuele Mazzi    | Aix-Marseille University | Impact of fast ions on microturbulence and transport: expectations for JT-60SA and ITER   |
| MF/20 | Fabio Riva       | UKAEA                    | Comparison of three-dimensional plasma edge turbulence simulations in realistic double null tokamak geometry with experimental observations |
| MF/21 | Dmitry Borodin   | EUROfusion JET           | Plasma-surface interaction studies in preparation of JET-ILW TT and DT operation: insight and extrapolation to ITER by the ERO2.0 modelling |
| MF/22 | Monica Spolaore  | Consorzio RFX            | Edge Localized Modes electromagnetic fine structure in the Scrape-Off Layer of tokamak discharges   |
| MF/23 | Mitsuru Kikuchi  | Osaka University         | Advances in physics basis of L-mode edge negative triangularity tokamak reactor   |
| MF/24 | Hao Wang         | NFRI                     | Nonlinear simulation of energetic particle driven geodesic acoustic mode channeling in LHD  |
| MF/25 | Jinil Chung      | NFRI                     | Experimental studies on advanced operation scenarios in KSTAR   |
| MF/26 | Julien Dominski  | PPPL                     | Emerging Picture on the Pedestal Dynamics and Triggering Mechanism of ELMs  |
| MF/27 | Fatima Ebrahimi  | PPPL                     | Plasmoid-mediated magnetic reconnection: From space to fusion plasmas   |
| MF/28 | Dan Thomas       | General Atomics          | Closure, Detachment, and Energy Dissipation Studies Using the DIII-D Small Angle Slot Divertor  |
| MF/29 | Andrea Garofalo  | General Atomics          | The high poloidal beta path towards steady state tokamak fusion   |
| MF/30 | Jo-Han Yu        | UC-Davis                 | Revolution in Microwave Imaging of Magnetic Fusion Plasmas  |
| MF/31 | Zhen Sun         | PPPL                     | Real-time impurity injection for ELM and H-mode pedestal control in EAST  |
| MF/32 | Max Austin       | University of Texas      | Confinement and stability in DIII-D negative triangularity discharges and relevance for reactor devices                                     |
| MF/33 | Francesca Poli   | PPPL                     | Integrated modeling: successes, challenges and path forward to ensure the success of ITER   |
| MF/34 | Devon Battaglia  | PPPL                     | Enhanced Pedestal H-mode Regime on NSTX   |
| MF/35 | Cameron Samuel   | LLNL                     | Velocity Imaging for Understanding Particle Transport in the Boundary of Magnetically Confined Plasmas                                      |
| MF/36 | Zheng Yan        | University of Wisconsin  | Role of turbulence and shear flow dynamics in the L-H transition and power threshold scaling  |
| MF/37 | Arash Ashourvan  | PPPL                     | Formation of a Staircase Pedestal in High Confinement DIII-D Plasmas with RMP Suppressed Edge-Localized-Modes                               |
| MF/38 | Ivan Novikau     | MPI for Plasma Physics   | Nonlinear dynamics of energetic-particle driven geodesic acoustic modes in ASDEX Upgrade  |
| MF/39 | Di Hu            | Beihang University       | Simulation and analysis of MHD response and radiation asymmetry after Shattered Pellet Injection in ITER plasmas                            |
| MF/40 | Lei Qi           | NFRI                     | Gyrokinetic Simulation Study of Zonal Flow Staircases in a KSTAR L-mode Plasma  |
| MF/41 | Juhyung Kim      | NFRI                     | Effects of resonant magnetic perturbations on nonlinear resistive reduced MHD simulations   |
| MF/42 | Jerome Bucalossi | CEA                      | First experiments in WEST with tungsten plasma facing components  |
| MF/43 | Kenji Imadera    | Kyoto University         | Effect of kinetic electron dynamics on ITB formation in flux-driven ITG/TEM turbulence  |



|       |                    |                                |   |
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| MF/44 | Erik Gilson        | PPPL                           | Initial Experimental Results on Boron and Boron Nitride Powder Injection Into KSTAR Discharges                          |
| MF/45 | Nami Li            | Dalian Institute of Technology | Simulations of radial electric field and divertor heat flux width using the BOUT++ transport code with drifts           |
| MF/46 | Sadruddin Benkadda | CNRS-Aix Marseille University  | A New Artificial Intelligence Approach of Electromagnetic Self-organization and Multiscale Physics in Magnetized Plasma |

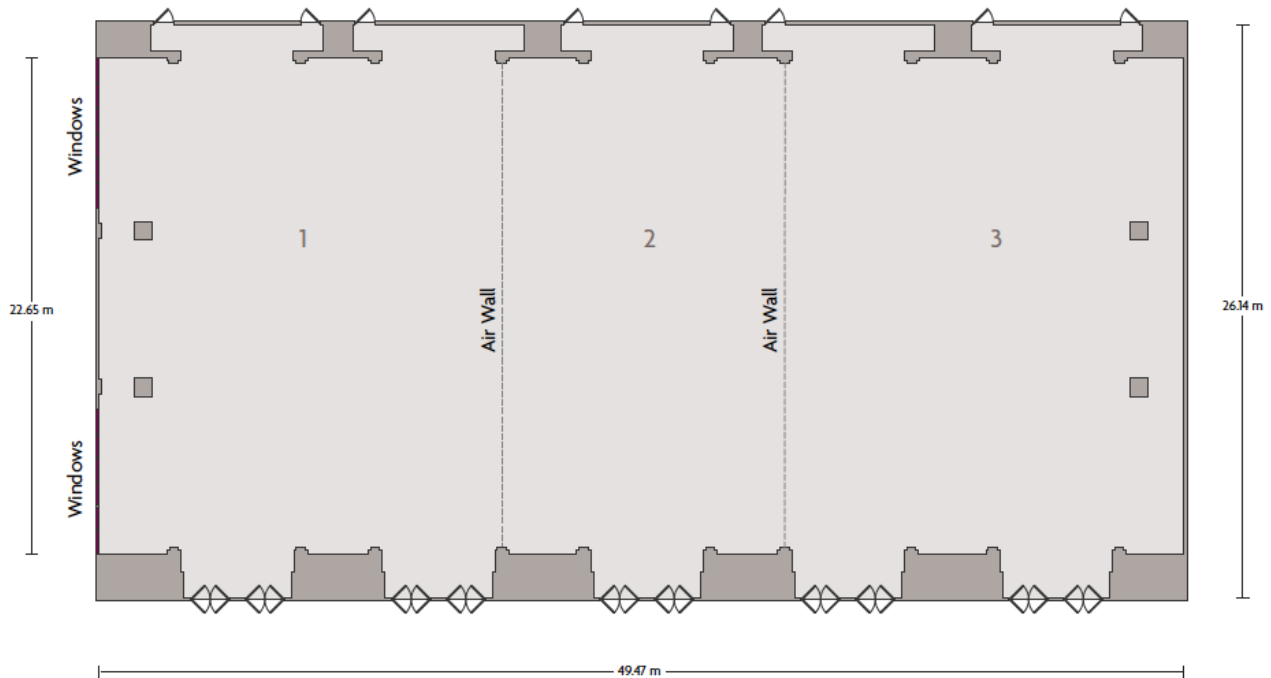
### [16] Venue detail

Conference venue is Crown Plaza Hefei.

| Session name                          | Room name                 | Capacity                              |
|---------------------------------------|---------------------------|---------------------------------------|
| Plenary                               | Fenghua Ballroom1+2+3     | 650 Seats                             |
| Cross Disciplinary session            | Mahogany Room 紫檀厅         | area 89 m <sup>2</sup> , max 60 Seats |
| Fundamental Plasma session            | Willow Room 杨柳厅           | area 89 m <sup>2</sup> , max 60 Seats |
| Basic plasma session-1                | Acacia Room 藤金厅           | area 84 m <sup>2</sup> , max 60 Seats |
| Basic-2/Applied-2                     | Oak Room 橡树厅              | area 82 m <sup>2</sup> , max 60 Seats |
| Applied plasma session-1              | Birch Room 白桦厅            | area 84 m <sup>2</sup> , max 60 Seats |
| Laser plasma -1 (inc. L-semi plenary) | Fenghua Ballroom3         | area 500 m <sup>2</sup> , 265 Seats   |
| Laser plasma session -2               | Maple Room 红枫厅            | area 89 m <sup>2</sup> , max 60 Seats |
| Space and Geomagnetism plasma session | Cypress Room2             | 160 m <sup>2</sup> , 60 Seats         |
| Solar and Astro plasma session        | Cypress Room1             | 228 m <sup>2</sup> , 110 Seats        |
| Magnetic Fusion plasma session-1      | Fenghua Ballroom1         | area 500 m <sup>2</sup> , 265 Seats   |
| Magnetic Fusion plasma session-2      | Fenghua Ballroom 2        | area 328 m <sup>2</sup> , 120 Seats   |
| Poster session                        | Pre-function Area (Foyer) | 567m <sup>2</sup>                     |

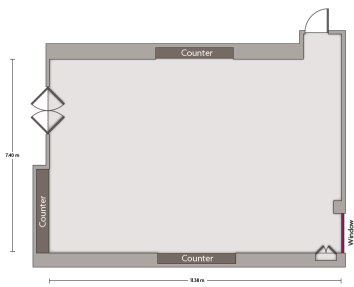
Fenghua Grand Ballroom: Plenary, MF-1,2, L-1

Crowne Plaza® Hefei - Fenghua Grand Ballroom



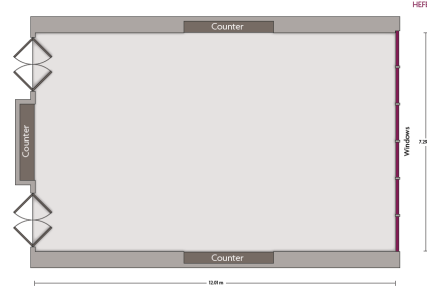
Basic-1(Acacia), Basic-2/ Applied-2(Oak), Applied-1(Birch)

Crowne Plaza® Hefei - Acacia



CROWNE PLAZA®  
HEFEI

Crowne Plaza® Hefei - Oak



CROWNE PLAZA®  
HEFEI

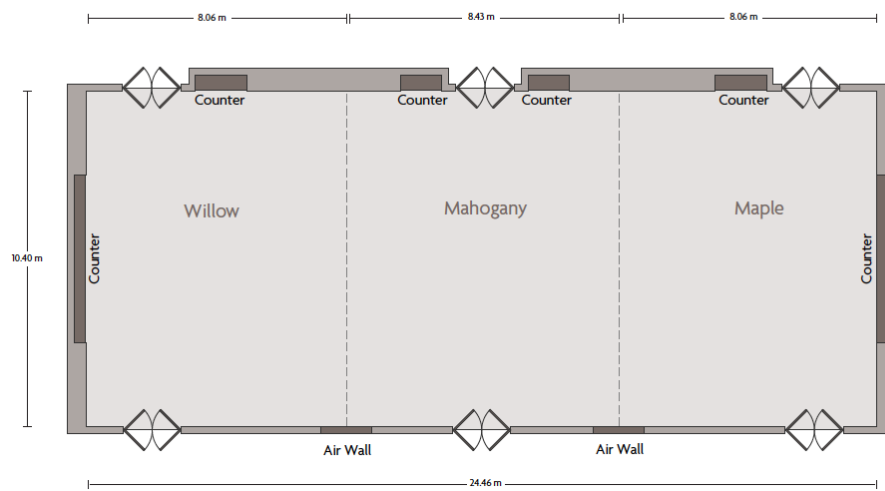
Birch : no photo

**CD (Cross-disciplinary) :** Mahogany Room 紫檀厅

**F (Fundamental) :** Willow Room 杨柳厅

**Lase-2 :** Maple Room 红枫厅

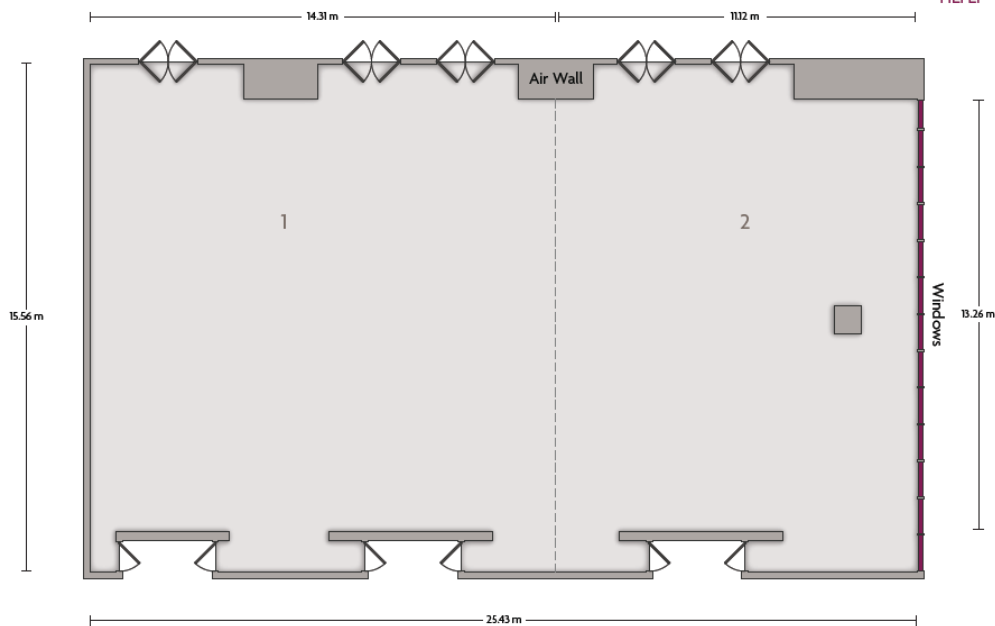
Crowne Plaza® Hefei - Willow, Mahogany & Maple



**Space and Geomagnetism plasma:** Cypress Room2

**Solar and Astro plasma :** Cypress Room1

## Crowne Plaza® Hefei - Cypress



### [17] Prize and Award

We have following prize and awards.

- |   |  |
|---|--|
| 1. 2019 S. Chandrasekhar Prize of Plasma Physics  | :  |
| 2. 2019 AAPPS-DPP Innovation Prize                | :  |
| 3. 2019 AAPPS-DPP Young Research Award (U40)      | : Selection committee chair : Prof. Liu Chen     |
| 4. AAPPS-DPP U30 Doctoral Scientist/Student Award | : Selection committee chair : Prof. Kunioki Mima |
| 5. AAPPS-DPP 2019 Poster Prize                    | : Selection committee chair : Prof. Xuru Duan    |

**Note:** 2019 S. Chandrasekhar Prize winner should give plenary talk at APPC-14 (Borneo island). Sponsors for 2019 S. Chandrasekhar prize are ENN and Top Glove Foundation.

### [18] IOC Members

**IOC Chair:** Yuanxi Wan (CN), I-HAC, Professor, ASIPP/USTC

**IOC Co-chairs:**

Mitsuru Kikuchi (JP), AAPPS-DPP Chair/CEO, RMPP chair, Baonian Wan (CN), DPP Chair-Elect, Director, ASIPP, Abhijit Sen (IN), I-HAC co-chair, Professor, IPP, Hyeon Park (KR), I-HAC, Professor, UNIST

**General PC Co-chair:** Xuru Duan (CN), DPP Vice Chair, Vice President, SWIP

**AAPPS-DPP I-HAC chair:** Liu Chen (CN), I-HAC chair, Professor, Zhejiang University

**APS-DPP chair:** David Newman, Professor, University of Alaska

**EPS-DPP chair:** Richard Dendy (EU), Professor, University of Warwick

**LOC-Chair:** Ge Zhuang (CN), Professor, USTC

**JPS (plasma chair):** Hideo Sugama (JP), Professor, Kyushu University

**CPS-DPP chair:** Xiaogang Wang (CN), Professor, HIT

**KPS-DPP Chair:** Dong-o JEON (KR), Institute for Basic Science

**Plasma Science SI, President:** Prabal K Chattopadhyay (IN), Professor, IPR

**Astronomical Society of Japan, President:** Kazunari Shibata, I-HAC, Professor, Kyoto University

**Chinese Astronomical Society, President:** Yipeng Jing, Professor, Shanghai Jiaotong University

**SGEPSS, President:** Yasuharu Omura (JP), Professor, Kyoto University

**Chinese society of Space research, Director general:** Ji Wu (CN), Professor, National Space Science, CAS

**Laser Society of Japan, President:** Yoshiaki Kato (JP), President, GPI

**JSPP, President:** Zensho Yoshida (JP), Fundamental PC chair, Professor, the University of Tokyo

**JSAP-DPE, Chair:** Mineo Hiramatsu (JP), Professor, Meijyo University

**AAAPT, President:** Rajdeep S. Rawat (SG), DPP Vice Chair, Associate Professor, NTU

**Australian ITER Forum, Chair:** Matthew Hole (AU), DPP chief secretary, A. Professor, ANU

**Representatives from fields**

**Cross-Disciplinary:**

Patrick Diamond (US/CN), I-HAC, CD PC chair, distinguished Professor, UCSD

**Fundamental:**

Akira Hasegawa (JP), I-HAC, Em Professor, Osaka University, Robert Dewar (AU), I-HAC, RMPP-HE, Em Professor, ANU, Sanae I. Itoh (JP), I-HAC, Em Professor, Kyushu University, Chio Zong Cheng (TW), I-HAC, Chandrasekhar Laureate, Em. Professor, NCKU, ChuanSheng Liu (US), I-HAC, Professor, University of Maryland, Yasushi Ono (JP), RMPP-AE, Professor, the University of Tokyo, Guoyang Fu (CN), Professor & Director, Zhejiang University,

Taik Soo Hahm (KR), RMPP-CE, Professor, SNU, Fulvio Zonca (IT), Prof./Dr., ENEA& Zhejiang University, Dominique Escande (FR), Professor, Aix-Marseille Universite, CNRS, PIIM

#### Basic:

Tomohiko Watanabe (JP), Basic PC chair, RMPP-AE, Professor, Nagoya University, Lin I (TW), Basic PC co-chair, I-HAC, Academician & Professor, NCU, Shunjiro Shinohara (JP), Basic PC co-chair, Professor, TUAT, Shin-Hung Chen (TW), DPP Vice Chair, Professor, NCU, Horoshi Akatsuka (JP), Professor, TITECH, Rajaraman Ganesh (IN), RMPP-AE, Professor, IPR, A A Mamun (BG), RMPP-AE, Professor, Jahangirnagar University, Yaming Zou (CN), Professor, Modern Physics Institute, Fudan University, Kwo Ray Chu (TW), Professor, National Taiwan University, Chiow-San Wong (MY), I-HAC, Em. Professor, University of Malaya, Osamu Ishihara (JP), I-HAC, President, Chubu University, Choong-Seock Chang (US), Chief Scientist, Princeton Plasma Physics Laboratory, Cary Forrest (US), Professor/Director, University of Wisconsin, Yoshiharu Uesugi (JP), Professor, Kanazawa University, Mike Mauel (US), Professor, Columbia University

#### Applied:

Yi-Kang Pu (CN), Applied PC chair, RMPP-CE, Professor, Tsinghua University, Wonho Choe (KO), Applied PC co-chair, Professor, KAIST, Masaharu Shiratani (JP), Applied PC co-chair, DPP vice chair, Kyushu University, Roderick Boswell (AU), I-HAC, Applied PC co-chair, RMPP-CE, Professor, ANU, Jung-Sik Yoon (KR), DPP Vice Chair, National Fusion Research Institute, Rikizo Hatakeyama (JP), I-HAC, Em Professor, Tohoku University, Francis F. Chen (US), I-HAC, Professor, UCLA, Masaru Hori (JP), Professor, Graduate school of Engineering, Nagoya University, Paul Kim Ho Chu (HK), Chair Professor, City University of Hong Kong, Suk Jae Yoo (KO), I-HAC, President, National Fusion Research Institute, Ashish Gangul (IN), Professor, Indian Institute of Technology, Deepak Prasad Subedi (NP), Director of Research, RDC, Kathmandu University, Teck Yong Tou (MY), Multimedia University

#### Laser and Particle Beams:

Jie Zhang (CN), Laser PC Chair, Professor, IOP, Kunioki Mima (JP), I-HAC, Laser PC co-chair, Professor, GPI, Zheng Ming Sheng (CN), Laser PC co-chair, Professor, SJTU, G. Ravindra Kumar (In), Laser PC co-chair, Professor, Tata Institute of Fundamental research, Hyong Suk (KR), Laser PC co-chair, Professor, Chair, GIST, Amita Das (IN), DPP Vice Chair, RMPP-AE, Professor, IPR, Ryosuke Kodama (JP), Professor&Director, ILE, Graduate School of Engineering, Osaka University, Hitoki Yoneda (JP): Professor & Director, Institute of Laser Science, University of Electric Comm., Tetsuya Kawachi (JP): Director General, KPRI, QST, Chang Hee Nam (KO), I-HAC, Laser PC co-chair, Professor & Director, GIST, Xian-Tu He (CN), I-HAC, Academician, Peking University, Heinrich Hora (AU), I-HAC, Professor, University of New South Wales, Toshiki Tajima (US), I-HAC, Professor, UCI, Sylvie Jacquemot (EU), Professor, Ecole Polytechnique, E. Michael Campbell (US): Professor, LLE, University of Rochester, Hideaki Takabe (DE), Professor/Dr., HZDR, Kazuo Tanaka (RO), Professor/Scientific Director, ELI-NP, Youichi Sakawa (JP), Professor, Osaka University

#### Space and Geomagnetism:

Xiaohua Deng (CN), DPP Vice Chair, Vice President, Nanchang University, Ryouichi Fujii (JP), I-HAC, President, Research Organization of Information Sciences, Zuyin Pu (CN), I-HAC, Professor, Peking University, Lou-Chuang Lee (TW), I-HAC, Chandrasekhar Laureate, Academician, Academia Sinica, Lin Ni Hau (TW), Professor, National Central University, Bimla Buti (IN), I-HAC, Founder & President, Buti Foundation, Don Melrose (AU), I-HAC, Chandrasekhar Laureate, Em. Professor, University of Sydney, Iver Cairns (AU), Professor, University of Sydney, Dong-Hun Lee (KR), I-HAC, RMPP-AE, Professor, Kyung Hee University, Yu Lin (US), RMPP-CE, Professor, Auburn University, Masahiro Hoshino (JP), Professor, University of Tokyo, Toru Hada (JP), Professor, Kyushu University, Bruce Tsurutani (US), Jet Propulsion Laboratory, California Institute of Technology, Daniel Baker (US), Professor, University of Colorado LASP, Boulder

#### Solar/Astro:

Ryoji Matsumoto (JP), SA PC Chair, DPP Vice chair, RMPP AE, Professor, Chiba University, Peng-Fei Chen (CN), SA PC co-Chair, RMPP-AE, Professor, Nanjing University, Jungeon Cho (KR), SA PC co-Chair, Chungnam National University, Hantao Ji (US), SA PC co-Chair, Professor, Princeton University, Arnab Rai Chaudhuri (IN), I-HAC, Professor, Department of Physics, Indian Institute of Science, Dipankar Banerjee (IN), Professor, Indian Institute of Astrophysics, Kanya Kusano (JP), Professor&Director, Nagoya University, Dongsu Ryu (KO), Professor, Department of Physics, UNIST, Jingxiu Wang (CN), I-HAC, Professor, UCAS, Kazuo Makishima (JP), Em. Professor, the University of Tokyo, Rony Keppens (DE), Professor, KU Leuven, Joerg Buechner (DE), Professor, Max-Planck-Institute for Sonnensystemforschung

#### Magnetic Fusion:

Yasuaki Kishimoto (JP), MF PC-co-chair, Professor& director of IAE, Kyoto University, Min Xu (CN), MF PC-co-chair, Professor, SWIP, Akio Komori (JP), I-HAC, President, National Institutes of Natural Science, Tomohiro Morisaki (JP), Executive director, Large Helical Device (LHD), NIFS, NINS, Sibylle Guenter (EU), Scientific director, Max Planck Institute for plasma physics, Anthony Donne (EU), Programme Manager for the consortium EUROfusion., Alain Becoulet (EU), Head of Institute, Institute for Research on Magnetic Fusion, CEA/ Cadarache, Tony Taylor (US), Vice president, GA, USA, Francois Waelbloeck (US), Director, Institute for Fusion Study, University of Texas, Ian Chapman (UK), Director, CCFE, Takaaki Fujita (JP), Professor, Nagoya University, Won Namkung (KR), Em. Professor, POSTECH, Yutaka Kamada (JP), Deputy director General, Naka, QST, Joaquin Sanchez (ES), Director, CIEMAT, Piero Martin (IT), Professor, University of Padova and Consorzio RFX, Ambrogio Fasoli (CH), Professor/Director, SPC, EPFL, Dennis Whyte (US), Professor, MIT, Richard Hawryluk (US), Associate Director for Fusion, PPPL, Hiroshi Yamada (JP), Fellow Professor, NIFS, Kenichi Kurihara (JP), Director General, Naka, QST, Takeo Muroga (JP), Deputy Director General, NIFS, Yong Liu (CN), I-HAC, President, SWIP, Kun Lu (CN), ASIPP, Keeman Kim (KR), NFR, Aparajita Mukharjee (IN), IPR, Yican Wu (CN), Director, INEST, Hartmut Zohm (DE), Member of Board of Director, Max Planck Institute for Plasma Physics, Shashank Chaturvedi (IN), Director, Institute for Plasma Research

### [19] Scientific Program Committee

General PC chair: M. Kikuchi (AAPPS-DPP Chair), Co-chair: Xuru Duan (AAPPS-DPP Vice-Chair)

There will be plenary session and parallel sessions from 8 sub-disciplines; CD and F sessions have focused topics.

#### 1. Cross-disciplinary (Focused Topics):

Chair; Patrik Diamond (UCSD),

Co-chairs: Lu Wang (HUST), Yusuke Kosuga (Kyushu U), Xavier Garbet (CEA), David Hughes (Leeds U), Shigeo Yoden (Kyoto U)

#### 2. Fundamental plasma physics (Focused Topics):

Chair; Zensho Yoshida (U Tokyo)

Co-chairs Robert Dewar (ANU), T.S. Hahm (SNU), Hong Qin (USTC), Phillip Morrison (U Texas)

#### 3. Basic plasma:

Chair; Tomohiko Watanabe (Nagoya U)

Co-chairs; Lin I (NCU), S. Shinohara (TUAT), Prabal Chattopadhyay (IPR), Ding Li (IOP-CAS)

Members: Feng Yan (Soochow University), JinLin Xie (USTC), A.A. Mamun (GK), Kenichi Nagaoka (NIFS), Atsushi Okamoto (Nagoya University), Yasushi Ono (U. Tokyo), Frank Jenko (IPP-MPI)

#### 4. Applied plasma:

Chair; Yikang Pu (Tsinghua U)

Co-chairs; Wonho Choe (KAIST), Masaharu Shiratani (Kyushu U), Rod. Boswell (ANU)



Members: Tony Murphy (CSIRO), Kazunori Takahashi (Tohoku U), Keh-Chyang Leou (National Tsinghua U), Tsanko Vaskov Tsankov (Ruhr-University Bochum), Svetlana Starikovskaia (Ecole Polytechnique), Mikhail Shneider (Princeton University)

5. **Laser plasma:**

Chair; Jie Zhang (SJTU)

Co-chairs; K. Mima (GPI), ZM Sheng (SJTU), Hyyong Suk (GIST), Ravindra Kumar (TIFR)

Members: Jian Zheng (USTC), Yongtao Zhao (XJTU), Ke Lan (IAPCM), Yuji Fukuda (QST), Youichi Sakawa (Osaka U), Chang Hee Nam (GIST), Kitae Lee (KAERI), Sudip Sengupta (IPR), M. Krishnamurthy (TIFR), Michel Koenig (LULI), Chikang Li (MIT), Stefan Weber (ELI), Frederico Fiuza (SLAC)

6. **Space & Geomag plasma:**

Chair; Xiaohua Deng (Nanchang U)

Co-Chairs; Tohru Hada (Kyushu U), Lakhina Gurbax (Indian Institute for Geomagnetism), Bruce Tsurutani (Caltech), Quanming Lu (USTC), Zhou Meng (Nanchang U), Dong-He Lee (Kyung Hee U)

7. **Solar & Astro plasma:**

Chair; Ryoji Matsumoto (Chiba U)

Co-chairs; Pengfei Chen (Nanjing U), Hantao Ji (Princeton U), Jungyeon Cho (Chungnam National U), Shu-ichiro Inutsuka (Nagoya U)

Members; Kazunari Shibata (Kyoto U), Dongsu Ryu (UNIST), Feng Yuan (Shanghai Astronomical Observatory), Dipankar Banerjee (Indian Institute of Astrophysics), Pin-Gao Gu (ASIAA), Siming Liu (Purple Mountain Observatory), Hui Li (Los Alamos National Laboratory), Kyungsuk Cho (Korea Astronomy and Space Science Institute)

8. **Magnetic Fusion plasma:**

Chair; Hyeon Park (UNIST)

Co-chairs; Min Xu (SWIP), Y. Kishimoto (Kyoto U)

Members; Yong-Seok Hwang (SNU), Guosheng Xu (ASIPP), Shaojie Wang (USTC), Katsumi Ida (NIFS), Takaaki Fujita (Nagoya U), Wulyu Zhong (SWIP), Abhijit Sen (IPR), Gunsu Yun (POSTECH), Siwoo Yoon (NFRI), Matthew J. Hole (ANU), Tuong Hoang (CEA), George McKee (Wisconsin/ GA), Steven A. Sabbagh (Columbia/PPPL)

**[20] Local Organizing Committee (LOC)**

LOC Chair: [Ge Zhuang](#) (USTC)

LOC Secretary : Jinlin Xie (USTC), Zhengwei Wu (USTC)

LOC Member: Yuntao Song (ASIPP), Shaohua Dong (ASIPP), Min Xu (SWIP), Wulv Zhong (SWIP), Yuming Wang (USTC), Quanming Lu (USTC), Wandong Liu (USTC), Jinxiu Ma (USTC), Shaojie Wang (USTC), Hong Qin (USTC), Jian Zheng (USTC), Xiaodong Zhu (USTC), Xuan Sun (USTC), Xiaofang Wang (USTC), Minyou Ye (USTC), Weihong Yang (USTC), Huishan Cai (USTC), Tao Lan (USTC), Haijun Ren (USTC), Jian Liu (USTC), Adi Liu (USTC), Hong Li (USTC), Pengfei Zhang (USTC), Guangyue Hu (USTC)