

32nd AAPPS council meeting, Jan. 22-24
Jia-Suo Guest House, Tsinghua University, Beijing

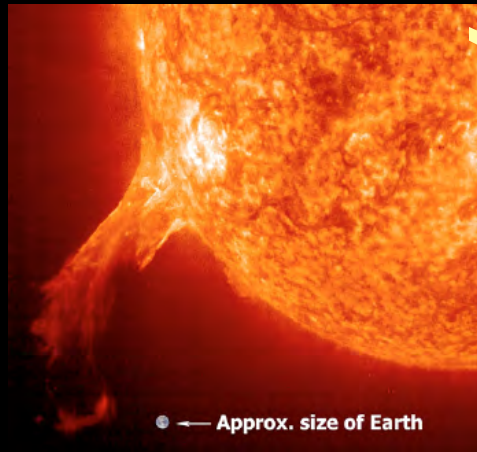
Annual report of Division of Plasma Physics, AAPPS

M. Kikuchi, DPP chair
JAEA

Ex. CAS visiting professor, Ex. Fudan Univ. visiting professor
Guest professor, Osaka U.

Introduction to Plasmas

- Plasma : 4th state of matter

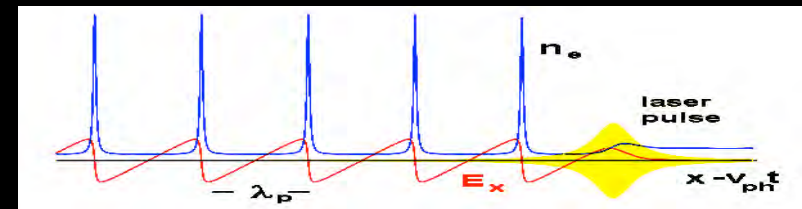
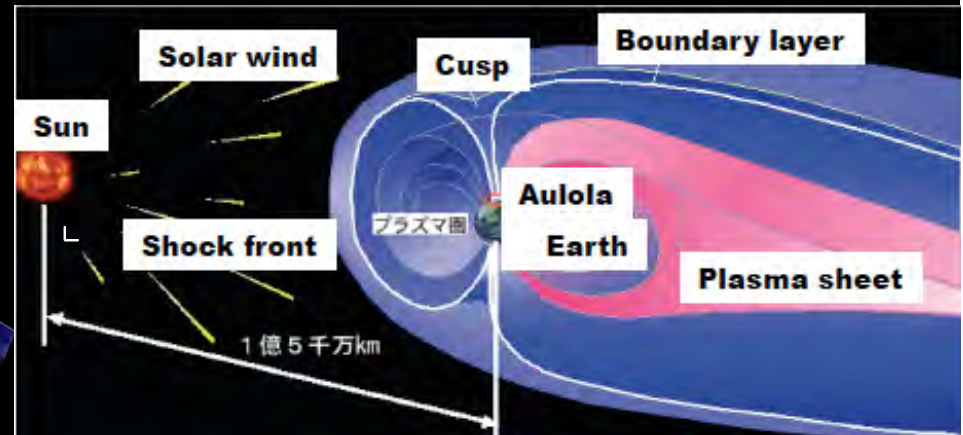


Solar flare/dynamo

Hinode



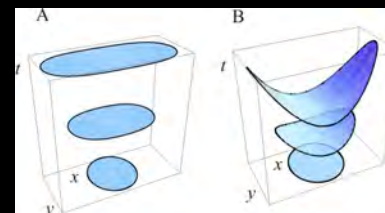
Aulola



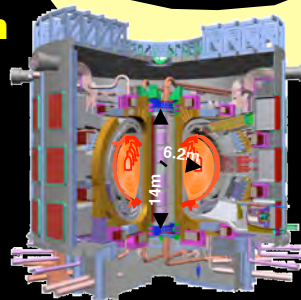
Plasma Wakefield effect
Relativity : $V \sim C$



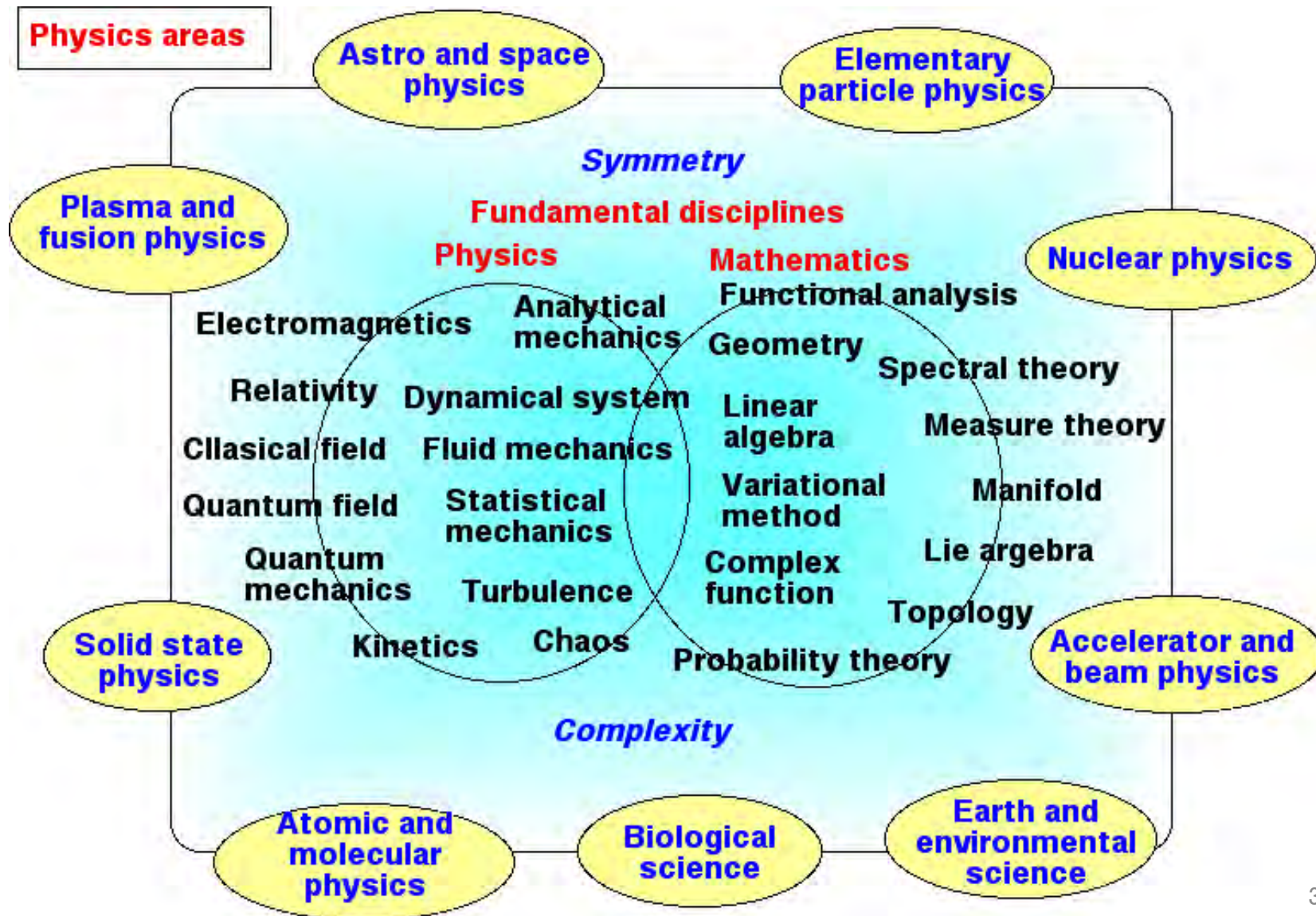
Origin of magnetic field & vorticity



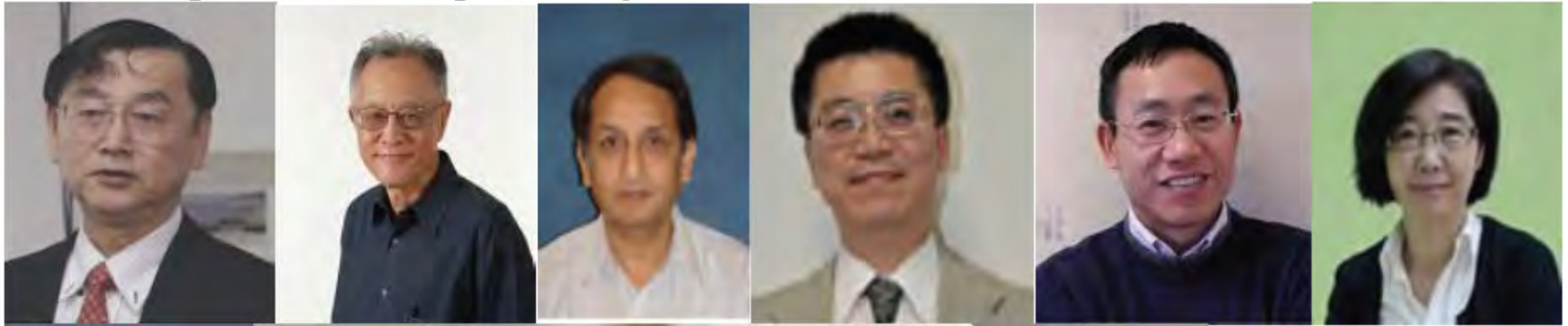
Fusion research



Plasma physics made significant progress benefited by fundamental disciplines



Executive committee (decision body)



M. Kikuchi
Chair

L. Chen
fundamental

A. Sen
basic

M. Shiratani
Applied

ZM Sheng
Laser

Lin Ni Hau
Space



D. Ryu
Solar/astro

M. Hole
APPC-13

T. Onjun
Secretary general

H. Nagai
Home page

K. Imadera
Member

International honorary advisory committee (I-HAC) (advisory body)



P. Kaw A. Hasegawa C. Yu, R. Dewar, C.Z. Cheng, C.S. Chang, F.F. Chen,



R. Hatakeyama, R. Boswell, T. Tajima, X.T. He. K. Mima, K. Shibata, L.C. Lee

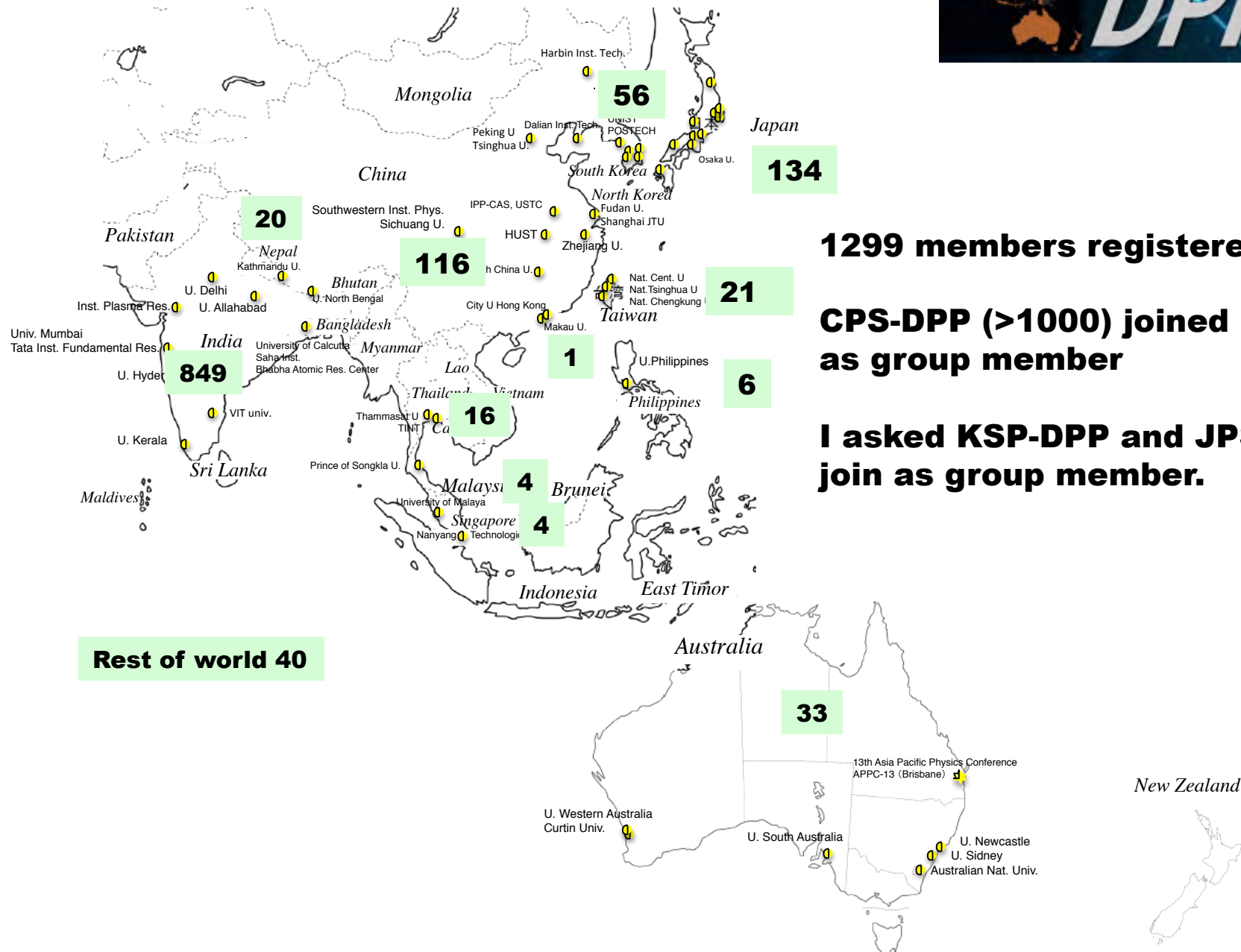


Z. Pu , W. Namkung, M. Sasao, H. Takabe, C. Pan

Plasma becomes a largest part of the Asian physics conference > 300
12 th Asia Pacific Physics Conference July 14-19, Makuhari, Chiba, Japan



Division of plasma physics, AAPPS membership



1299 members registered

CPS-DPP (>1000) joined as group member

I asked KSP-DPP and JPS-DPP join as group member.

Individual DPP member registrations

2016.1.1

	Founders	Members	Total
Australia	11	22	33
Beijing	22	94	116
India	10	839	849
Japan	24	110	134
Korea	9	47	56
Malaysia	1	3	4
Philippines	1	5	6
Taipei	5	16	21
Thailand	2	14	16
Singapore	4	0	4
Hong-Kong	1	0	1
Nepal	1	19	20
Oman	0	1	1
Pakistan	0	1	1
Indonesia	0	2	2
USA	1	21	22
Canada	0	1	1
France	0	1	1
UK	0	2	2
Germany	0	4	4
Italy	0	1	1
Czech	0	1	1
Portugal	0	1	1
Chili	0	1	1
Rwanda	0	1	1
Total	92	1207	1299

2015.1.1

	Founders	Members	Total
Australia	11	21	32
Beijing	22	92	114
India	10	835	845
Japan	24	104	128
Korea	9	29	38
Malaysia	1	3	4
Philippines	1	5	6
Taipei	5	16	21
Thailand	2	12	14
Singapore	4	0	4
Hong-Kong	1	0	1
Nepal	1	18	19
Oman	0	1	1
Pakistan	0	0	0
Indonesia	0	0	0
USA	1	19	20
Canada	0	1	1
France	0	1	1
UK	0	1	1
Germany	0	4	4
Italy	0	1	1
Czech	0	1	1
Portugal	0	1	1
Chili	0	1	1
Rwanda	0	1	1
Total	92	1167	1259

DPP Homepage (Linked from AAPPS HP) volunteer work by H. nagai

DPP News

Prof. Predhiman Kaw is Laureate of 2015 S. Chandrasekhar Prize!! <<<
Press Release Press Release(Japanese) Congratulatory Wordings

Call for Web Advertising. AAPPS-DPP needs your cooperation!!
Make contact with AAPPS-DPP Secretary aapps.dpp@gmail.com(substitute @ for #)
Download Application Form

Call for Donation for S. Chandrasekhar Prize of Plasma Physics

- January 17, 2016
See Web advertisement.
DPP News January 17, 2016
- January 14, 2016
First Announcement of the 43rd EPS Conference on Plasma Physics.
DPP News January 14-3, 2016
- January 14, 2016
Meeting Information: Vidisha Conference.
DPP News January 14-3, 2016
- January 14, 2016
ICPP2016 abstract submission ready.
DPP News January 14, 2016
- January 13, 2016
Report of 10 year celebration of plasma physics lab. in Nepal.
DPP News January 13-3, 2016
- January 13, 2016
Prof. Francis Froyon passed away.
DPP News January 13-3, 2016
- January 13, 2016
2015 S. Chandrasekhar Prize Laureate is Prof. Predhiman Kaw.
DPP News January 13, 2016 Congratulatory Wordings Press Release

Web advertisement

JEOL Ltd. Thin Film Coating Equipment	Company Philosophy On the basis of "Creativity" and "Research and Development", JEOL positively challenges the world's highest technology, thus forever contributing to the progress in both Science and Human Society through its products.
TOSHIBA Leading Innovation	Toshiba Corporation, a Fortune Global 500 company, channels world-class capabilities in advanced electronic and electrical product and systems into five strategic business domains: Energy & Infrastructure, Community Solutions, Healthcare Systems & Services, Electronic Devices & Components, and Lifestyle Products & Services.
HEETEC HIGH-POWER ELECTRICAL EQUIPMENT TESTING CENTER OF CASHIPS	High-Power Electrical Equipment Testing Center of CASHIPS (abbreviated as HEETEC), equipped with the largest DC power test platform and steady state test platform in China, is a professional test organization on high power electrical equipment.
HEFEI KEJUGAO TECHNOLOGY CO., LTD	HEFEI KEJUGAO TECHNOLOGY CO., LTD is a sole corporation established by the Institute of Plasma Physics, Chinese Academy of Sciences. KEJUGAO has deeply participated in ITER international cooperation projects and can offer the Fusion Engineering Technology Division with comprehensive solutions in designing, researching, and testing.
CHINESE LASER PRESS	Founded in 2009, Chinese Laser Press (CLP) is a non-profitable company providing professional multilateral connections for the laser, optics and photonics community, through publishing, meetings, and other activities.

Upcoming meeting

- APFA 2015,
Dec.14-18, 2015,
Gandhinagar, India
- 2015 ITER International School,
Dec.14-18, 2015,
Heifei, China
- 10th West Lake
International Symposium
(WLIS) on Magnetic Fusion
and the 12th Asia Pacific
Plasma Theory Conference
(APPTC), May.9-12, 2016,
Hangzhou, China
- The 18th International Congress on Plasma Physics (ICPP-2016).
June 27-July1, 2016,
Kaohsiung, Chinese Taipei
- EPS 2016,
July.4-8, 2016, Leuven,
Belgium

Education/school

AAPPS-DPP site

Schools & Books

There are number of plasma schools which may be useful for Asia researchers. This page provide informations schooling opportunities also all over the world.

Schools

- Asia-Pacific school information:
 - Sokendai Asian Winter School(AWS2014)
 - * Date: Dec.2, 2014 - Dec. 5, 2014
 - * Location: National Institute for Fusion Science, Japan
 - * Intended for: Students and young researchers in Japan and
 - * Capacity: 30 people
 - 2nd ASEAN School on Plasma and Nuclear Fusion Jan 18-22 University, Bangkok., Thailand
 - It will be an intensive one-week course taught by fusion experts in
 - Cooperation Agreement in the Field of Magnetic Fusion Research
 - East-Asia School and Workshop on Laboratory, Space and Astrop
 - This school is started in 2011 and the first school is held at KIAA 2nd school at Jeju Island, Korea in 2012. 3rd school at Tokyo, Jap
 - School will be held at Harbin Institute of Technology, Harbin, Ch
- 4th East-Asia School and Workshop on Laboratory, Space and


past items

S. Chandrasekhar Prize

S. Chandrasekhar Prize of Plasma Physics

1. Foundation of S. Chandrasekhar Prize

Subrahmanyan Chandrasekhar (1910-1995) was an Indian- American astrophysicist who was awarded the 1983 Nobel Prize for physics for his theory of black hole. He worked in various areas including plasma physics. Plasma physics community is benefited from his works through his textbooks such as "Principles of stellar dynamics (1942)", "Plasma Physics (1973)", "Hydrodynamics and Hydromagnetic stability (1981)". In 2014, we have established the Division of Plasma Physics under AAPPS. Asia-Pacific region is rapidly growing economically and scientifically. A large number of new programs on various fundamental and applied aspects of plasma physics are emerging in several countries of Asia and the Pacific regions. Young people taking up careers in plasma science in these regions look forward to the prestige of recognition by their peers and this becomes more equitable when your peers are intimately familiar with your work. This will also give a "sense of accomplishment" to the Asia-Pacific region as a whole because the body of significant work already pioneered by the Awarders will be attributed to this region. The Executive Committee of division of plasma physics after consultation to I-HAC (International Honorary Advisory Committee) decided to establish Plasma Physics Prize after S. Chandrasekhar to recognize seminal/pioneering works in this field.



2. Description of the S. Chandrasekhar Prize

The Chandrasekhar Prize is awarded by the Division of Plasma Physics of the AAPPS to recognize outstanding contributions to experimental and/or theoretical research in fundamental plasma physics and plasma applications in all fields of physics.

i) Rule: This Prize will be given to an AAPPS-DPP member who has made seminal / pioneering contribution to any field of plasma physics or plasma applications as stated above.

ii) Nomination: Necessary documents and time schedule for nomination will be announced in the DPP home page. DPP seeks outstanding nominations worldwide and especially from the Asia-Pacific region.

iii) Selection: Selection will be made by the Chandrasekhar Prize Selection Committee annually.

iv) Selection Committee: DPP-ExCo will appoint Chair and members of selection committee taking into account of the I-HAC recommendations.

v) Award Ceremony: Certificate, Medal and a cash award will be bestowed to the awarders at the APCC conference held every three years.

vi) Obligations: Chandrasekhar awarders should deliver invited talks in the APCC as well as contribute review papers to the DPP journal.

3. Call for Sponsorship and Contribution

Division of Plasma Physics (DPP) seeks the official sponsorship by any organizations and personal contributions in support of above prospectus. Contribution will be used for DPP operation and awards. Official sponsorship by the organization will be recorded in the diploma of DPP Awards and the home page. Official sponsorship shall be one or more units in the US \$ 5,000. You may visit AAPPS-DPP HP at <http://aapps.dpp.org/AAPPSDPP/index.html>.

Sponsors and Contributors

Join DPP membership

AAPPS-DPP started member registration

- I) If you are participants of APCC-12:**
Please send your informations to AAPPS-DPP secretary for the following items:
1. Name (First, Middle, Family)
 2. Salutation
 3. Affiliation
 4. Position
 5. E-mail
 6. Fields of interest: D-0, D-1, D-2, D-3, D-4, D-5
 - D-0: Fundamental Plasma Physics (MHD, turbulence, transport, wave-particle interaction)
 - D-1: Basic Plasma Physics (plasma diagnostics, atomic and molecular processes in plasmas, plasma simulation, complex and non-neutral plasma, etc.)
 - D-2: Applied Plasma Physics
 - D-3: Laser Plasma (including laser wake field acceleration)
 - D-4: Space Plasma Physics
 - D-5: Solar & Astro Plasma Physics
- 7. I am currently a student (Baccalaureate, Master, Doctoral) Yes or No**
- AAPPS-DPP Secretary** aapps.dpp@gmail.com
or ladarsalcenter.iaa.kyoto-u.ac.jp (substitute @ for #)

- II) If you are not the APCC-12 participant:**
Please ask any AAPPS-DPP member for your recommendation and send his/her information to AAPPS-DPP secretary.
Present AAPPS-DPP members are founders of AAPPS-DPP and only one member's record required.

The member fee is free at this moment!
For your registration, please use the following form.

DPP endorsed conferences

AAPPS-DPP Meetings

- The 12th Asia Pacific Plasma Theory Conference
1-4 July, 2014, Jeju Island, Korea
Host : 12th APPTC Organizing Committee
Co-sponsor: AAPPS-DPP
Topics: Visit following page <http://plasma.ee.pusan.ac.kr/apptc2014/index2.html>
- 4th Asia-Pacific Transport Working Group (APTGW) conference
10-13 June 2014, Kasuga, Japan
Host : APTWG2014 Organizing Committee
Co-sponsor: AAPPS-DPP
Topics: Visit following page <http://aptwg2014.nifs.ac.jp/>
- 8th International West Lake symposium
April 21-25, 2014 at Hangzhou, China
Host : Institute for Fusion Theory and Simulation, Zhejiang University
Co-sponsor: AAPPS-DPP
Topics : Novel Radiation Sources, Advanced Particle Accelerators, Laser-Driven Radiation Reaction Effects, Computational Plasma Physics, Laser-Plasma Amplifier

AAPPS Meetings

The 13th Asia-Pacific Physics Conference will be held in Brisbane in December 2016, in con
2016 AIP Congress 2014 AIP Congress

Upcoming meetings

May 19-23, 2014	Beijing, China	Conference Chair: Bing Qiu (DPP) and Bing Qiu
May 18-23, 2014	New Japan	5th International Conference on Plasma Medicine (ICPM5)
June 10-13, 2014	Kyushu, Japan	4th Asia Pacific Transport Working Group Meeting
June 23-27, 2014	Singapore	The 18th Asia Pacific Plasma Theory Conference and Japan Korea Workshop on Modeling and Simulation of Magnetized Plasma Physics
July 1-4, 2014	Jeju Island, Korea	The 12th Asia Pacific Plasma Theory Conference and Japan Korea Workshop on Modeling and Simulation of Magnetized Plasma Physics
July 28 - Aug 1, 2014	Zhejiang, China	The 5th China Japan Korea Asia Seminar on Atomic and Molecular Processes in Plasmas (ASPP2014)
Aug 31 - Sep 5, 2014	Adelaide, South Australia	12th Asia Pacific Conference on Plasma Science and Technology (APCST2014)
Sep 22-26, 2014	London, England	International Conference on Plasma Physics, ICPP2014
Sep 23-24, 2014	Beijing, China	2nd International Conference on High Energy Density Physics, ICHEDP2014
Sep 23-24, 2014	Kuala Lumpur, Malaysia	International Conference on Plasma Science and Applications
Oct 12-17, 2014	Gos, India	ICPP2014 - International Conference on Plasma Science and Applications
Nov 18-23, 2014	Nagoya, Japan	Plasma Conference 2014
Dec 15-19, 2014	Daejeon, Korea	ASIA 7th on Atomic, Molecular, and plasma material interaction, Asia for fusion research and technology
Jan 15-17, 2015	Kolkata, India	Laser and Plasma Application in Material Science (LAPAM 2015)
Feb 22-24, 2015	Munich, Germany	ICPP2015 - International Conference on Plasma Science and Applications
March 16-27, 2015	Trieste, Italy	From ITER to Fusion: Advanced Science and Technology in Plasma Spectroscopy
March 20-31, 2015	Hiroshima University, Japan	APPS2015: Plasma Science and Technology
April 13-17, 2015	Kolkata, India	APPS2015: Plasma Science and Technology
June 9-12, 2015	Daejeon, Korea	5th APTGW Asia Pacific Transport Working Group Conference
15 June - 10 July, 2015	Norrtalja, Sweden	Organ, Evolution, and Signatures of Cosmological Magnetic Fields
July 15-18, 2015	Antwerp, Belgium	ICPP-21: 21st International Conference on Plasma Physics
Aug 17-22, 2015	POSTECH, Korea	5th East-Asia School and Workshop
Aug 24-Sept 4, 2015	Leuven, Belgium	12th European Magnetic Fusion Conference

DPP News; start in April 2014

1st DPP News2014

PS-DPP News 2014.05.
Hangzhou, China

M.Y. Yu (ZJU), H.-C. Wu (ZJU), Zheng-Ming Shang (SJTU), and L. Chen (ZJU)

In April 21-25, 2014, the 8th International West Lake Symposium on Laser Plasma Interactions (IWL-S-LPI) was held at the Zhejiang Hotel hidden in the beautiful hills next to the West Lake in Hangzhou, China. There were more than 120 participants from China, France, Germany, India, Italy, Japan, Portugal, Russia, UK, USA, etc. representing more than 27 institutions worldwide. More than 60 oral talks and posters were presented.

The West Lake Symposium series is organized and hosted annually by the Institute for Fusion Theory and Simulation, Zhejiang University for the purpose of exchanging ideas in a relaxed atmosphere on topics ranging from magnetically confined fusion plasmas, laser plasma interactions, and space plasmas to computational plasma physics. This year, the Symposium, co-sponsored by the newly established Division of Plasma Physics, Association of Asian-Pacific Physical Societies (AAPPS-DPP), is focused on "Laser Plasma Interactions". Most presentations in the Symposium are on the interaction of relativistic high-intensity lasers with plasmas, including the generation of ultrashort wavelength light sources, ultrafast and high flux electron and ion beams, ultraintense magnetic fields, etc. These topics are consistent with the current main interests in relativistic laser-plasma interactions, which may find applications in laser-driven fusion, laboratory modelling of astrophysical phenomena, novel and compact radiation and beam sources, medical diagnostics and tumor treatment, etc. The use of lasers can greatly reduce the overall size of the devices in the applications and is therefore practical as well as economical interest. The 30-minute oral talks were ergonomically arranged, leaving ample time for stressless discussions and interchange of ideas. The Symposium also contains several informative 50 minute review talks that cover the up-to-date research topics as well the relevant basic physics. There were also many fruitful after-session discussions among participants.

From the author lists of the works presented, one can also see that there exists a great deal of collaborations among the researchers from China and other countries (especially Germany: involving more than 6 Max Planck Institutes, Helmholtz Centers, and universities), as well as from different institutions within China. The Symposium should result in an enhancement of this welcoming trend, which we look forward to seeing in the next West Lake Symposium.

The agenda, participant list, PPT of talks, and other information on the 8th IWL-S-LPI can be found at <http://ifts.zju.edu.cn/lpi/>.



DPP News on APTWG2015

was a series of APTWG conference started at NIFS of Japan in 2011, then at Chengdu of China in 2012, and Jeju island at Korea in 2013, and at Kyushu University of Japan in 2014.

The 5th APTWG international conference consisted of (1) Plenary Session; (2) Working Group Sessions; (3) Poster Sessions; (4) Young Researcher's Forum; and (5) Summary Sessions. The purpose of the Plenary Session is to discuss the important topics in transport physics that have not been clarified yet. In this year, a few talks were selected for the plenary session. 5 topics were chosen for the working group session, i.e. (a) Turbulence suppression and transport barrier formation; (b) Effect of magnetic topology on MHD activity and transport; (c) Non-diffusive contribution of momentum and particle transport; (d) Non-local transport and turbulence spreading and coupling; and (e) Energetic particles and instability. Each working group session consisted of two or three invited talks, several oral and 20 minutes discussion. Poster sessions of 90 min were arranged after the oral sessions of each working group session. Summary talks of each working group were given on the last day.

There were 48 invited and oral talks and 109 posters, and over 100 participants from six countries in APTWG 2015. The next conference will be held in Korea in 2016.



Photo of the 5th APTWG international conference

DPP News on A3 foresight

Dec. 15-17, 2014

Michiaki Inomoto

Organizer of 3rd A3 Foresight Workshop on Spherical Torus
Associate Professor, GSPS, The University of Tokyo, Japan

3rd A3 Foresight Workshop on Spherical Torus (ST) was held from Dec. 15 to Dec. 17, 2014, at Okura Akademia Park Hotel, Kisarazu, Chiba, Japan, as a seminar of A3 Foresight Program on "Innovative Tokamak Plasma Startup and Current Drive in Spherical Torus" supported by JSPS (Japan) / NRF (Korea) / NSFC (China) since 2012. The goals of this project is to establish center-solenoid-free ST start-up scheme and to comprehend MHD/non-MHD dynamics and transport of center-solenoid-free ST plasmas under the international cooperative framework among six distinctive ST experiments operated in universities in Japan, Korea, and China. As well as personnel exchanges for joint research, workshops and summer schools are convened in this project. Previous workshops were held in Seoul (Jan 2013), and Beijing (Jan 2014), and previous summer schools were held in Tokyo (Jul 2013), and Jeju Island (Jul 2014).

Forty-nine participants attended the 3rd workshop and thirty-nine oral talks focused on ST start-up technique (waves, helicity injection, merging, etc.), ST plasma physics, ST reactor design, and diagnostics, were presented. Education and training of young researchers/students is another important objective of this program. In this workshop, four students were given awards for their outstanding presentations.

The next A3 Summer School on ST will be held in Chengdu, China in 2015 summer, and the next A3 workshop on ST will be held in Korea in 2015-2016 winter.



Group photo of A3 foresight workshop

DPP News on WLS2015

Hangzhou, Zhejiang Province, China, from May 18th to 21st, covering magnetic fusion, space, and laser plasmas.

The symposium was hosted by Institute for Fusion Theory and Simulation (IFTS), Zhejiang University. Meantime, the symposium was also sponsored by Computational plasma physics division of Computational physics society, and Association of Asia Pacific Physical Societies, Division of Plasma Physics. In addition, the conference was made possible by the more than 90 scientists from China, Japan, Europe and the United States who attended the Symposium.

The symposium has started with a welcome address by Prof. Liu Chen of IFTS. There are totally 34 talks presented in this symposium, including 19 invited talks and 15 contributed oral talks. Among them, Dr. Guoyong Fu of PPPL presented the recent progress in energetic particle driven modes for NSTX using kinetic-MHD model. Professor Luo-Chuang Lee from Institute of Earth Sciences, Academia Sinica reviewed three important electrodynamic coupling processes in space plasma physics and provided a new approach to predict earthquake. In another talk, Professor Lee presented new ideas in fusion energy with interesting theory and experiments in joint work with Prof. A. Wong, which raised a lot of interest among the audience. Prof. Sugama from NIFS, Japan presented collisional effects in gyrokinetic field theory. Dr. R. Waltz from General Atomics reported the recent progress in modeling burning plasma physics. Some young researchers also presented interesting results, e.g. Prof. Chen Min of SJTU proposed a palinot sychrotron-like radiating source and Prof. Grismayer of UDL Portugal presented PIC simulations for QED.

The graduate students were encouraged to make poster presentations. There are totally 19 posters presented in this symposium.



DPP News:ASEAN school

1st ASEAN School on Plasma and Nuclear Fusion (ASP/NF2015)
January 6-9, 2015 (<https://sites.google.com/site/fusionthai2015/>)

Dr. Thawatchai Ogura

Sinuthorn International Institute of Technology, Thailand

The 1st ASEAN School on Plasma and Nuclear Fusion was held under the framework of the Cooperation Agreement in the field of magnetic fusion research between the France and Thailand. There are many organizations supporting this activity including the French Alternative Energies and Atomic Energy Commission or CEA, the French Embassy of Thailand, the Association of Asia Pacific Physical Societies: Division of Plasma Physics, Sinuthorn International Institute of Technology, Thammasat University, National Research Council of Thailand, Thailand Physics Society, and Nuclear Society of Thailand. It was an intensive course taught by fusion experts from January 6, 2015 through January 9, 2015 at Sinuthorn International Institute of Technology, Thailand.

Twenty six participants were selected and joined ASP/NF2015. A breakdown by country revealed, 21 participants from Thailand, 2 participants from Malaysia, 1 participant each from Indonesia, India, and Philippines, respectively. A breakdown by position was as follows: 13 graduate students, 4 undergraduate students, and 7 young researchers. The school contained lectures about basic plasma physics and thermonuclear fusion, plasma diagnostic, and simulations for fusion plasmas.

Lectures given are 1. Fusion around the World & ITER, Path for fusion energy (J.M. Auer, CEA), 2. Plasma Physics and Fusion Research (M. Kikuchi, JAEA), 3. Magnetic Fusion Research in France & WEST (T. Hwang, CEA), 4. Fusion Research Program in Thailand (T. Ogura, SJTU), 5. MCF Concept (J.M. Auer, CEA), 6. ICF Concept (M. Murakami, Osaka University), 7. Laser Fusion for High Energy Density Physics (M. Murakami, Osaka University), 8. Plasma Waves and Instabilities (R. Dumont, CEA), 9. Waves and Instabilities in Magnetic Fusion Plasmas (R. Dumont, CEA), 10. Heating & Current Drive (A. Ekedahl, CEA), 11. Lecture on MHD stability of tokamak (M. Kikuchi, JAEA), 12. Transport and turbulence (R. Guzel, CEA), 13. Diagnostics I (R. Guzel, CEA), 14. Diagnostics II (R. Guzel, CEA), 15. Modeling of Plasma Scenarios I (G. Guezennec, CEA), 16. Modeling of Plasma Scenarios II (G. Guezennec, CEA).



AAPPS-DPP News 2015.07.31

DPP News on EPS-DPP2015

The 42nd EPS Conference on Plasma Physics was held during June 22-26, 2015 at London.

Prof. Nat Fish (PPPL) gave an Alfven prize Lecture on Monday, which cover current drive, α channeling and ICF physics.

The 13 plenary speakers are Nunes (Mon: JET), Remington (Mon: Giga bar matter), Sanden (Mon: non-equil. Plasma), Y. Omura (Tues: Whistler chorus emission), Tikhonchuk (Tues: Shock ignition), Hooker (Wed: Laser plasma acceleration), Loureiro (Wed: Magnetic reconnection), H. Wilson (Thur: tokamak pedestal), Tatsawa (Thur: graphene production by plasma), Spitkovsky (Fri: particle acceleration and B generation in astrophysical plasma), Poverello (cancer plasma medicine), Peysson (LHCD modeling), Dattoli (free electron coherent radiation sources), Mura (Sat: EAST), Michael (OSTAR), M. Hole (MHD), Kwak (KSTAR), Mima (shock). There are ~570 posters. Contributed papers are available at <http://www.euroconf.eu/EPS2015AP.html/index.html>

There are evening sessions on EUROfusion led by T. Donne, ITER DG B. Bigot's talk and discussions, and Itoh Project, best poster prize presentation at the end of the conference. NEXT EPS will be held at Lausanne, Belgium in July 4-8, 2016. This is just after the ICPP 2016 (International Congress on Plasma Physics) at Kaohsiung, Taiwan (June 27-July 1).



Fig. H. Alfven prize lecture by Prof. Nat Fish and reception.

DPP News on Council

AAPPS-DPP Chairman, Mitsuru Kikuchi

The 31st AAPPS Council Meeting was held from Feb. 6-7, in Seoul (Renaissance Seoul hotel). Since DPP was approved in 30th AAPPS council in Taipei, I gave an annual report of the DPP activity.

Participants are Swan Kim (president), S. Nagamiya (past president), GL Long (Vice president), and others can be seen from photo. There are society reports from ADP, CPS, PS-Hong Kong, Indonesia PS, Japan-PS, Japan S Applied Phys., Malaysian IoP, IoP-Singapore, PS-Taipei, Vietnam National IoP, KPS, Then, APCIT report by HY Choi.

There is an application of new division, called Division of Astrophysics, cosmology and Gravitation (DAGC) explained by S.P. Kim. Chair is Prof. Misao Sasaki (Yukawa Inst. For theoretical physics), Vice Chairs are R.G. Cai (CPS), B. Dawson (ADP), X.G. He (PS-Taipei), S.Y. Kim (KPS), J. Yokoyama (secretary general), Advisory committee are J.E. Kim (SNU), S.C. Lee (Acad. Sinica), J. R. Mould (Swinburne U.T.), Katsuhito Sato (NINS), YL Wu (CAS). We will have a close communication with new division with Swan and GL Long (in charge of division). I have reported annual report of activity of DPP activity as attached (requests to the council and accounting information, and agreement between SWIP and AAPPS-DPP are dropped). Foundation of the S. Chandrasekhar prize is unanimously endorsed by the council.

Dr. R. Robinson reported preparation for APCC-13 in Brisbane, Dec. 4-8, 2016 just AOP congress. There will be full 4 days and less plenary slots since AAPPS will not be held this time. Unfortunately I have to leave council during his talk. There can be enough parallel sessions.



Group photo of 2015 AAPPS council (2: Monika Raharti (Indonesia), 3: 4: R. Robinson (ADP), 5: Shoji Nagamiya (Riken), 6: Swan Kim (AAPPS president, KPS, Postech), 7: Gu Li Long (CPS, Tsinghua U.), 8: M. Kikuchi (DPP), 9: Swee Ping Chia (MIP, Malaysia U.), 10: Yoshio Kuramoto (JPS, Tohoku U.), 13: Fu-Jen Kao, (PS-Taiwan, National Yang-Ming U.), 14: L. Han Tan (PS-Hong Kong, Hong-Kong Baptist U.), 16: Mitsuru Iwamoto (JASAP, Tokyo Inst. Tech), 18: Nguyen Q. Liem (Vietnam Nat. IoP), 20: Sang Pyo Kim (council secretary). Missing are Won Namkung (Postech), Xing Zhu (CPS, Peking U.), Youngah Park (KISTEP), etc.

DPP News :Fermi Prize to Tajima

Prof. Toshiki Tajima (Tohoku Institute Professor) will receive Enrico Fermi Prize 2012

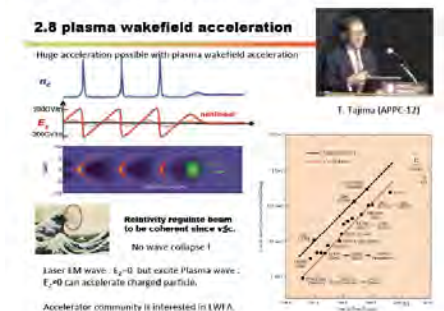
AAPPS-DPP Chair M. Kikuchi

On September 21, 2015, the Italian Physical Society will award the Enrico Fermi Prize to Toshiki Tajima, Professor at UC Irvine. Toshiki Tajima is rewarded "for the invention of the laser wake field acceleration technique which led to a number of fundamental and interdisciplinary applications ranging from accelerator science to plasma physics and astrophysics," says the Italian Physical Society. Laser-plasma acceleration is often presented as the next-generation technology that will enhance radio frequency-based accelerators such as cyclotrons or synchrotrons. It would indeed reduce their size by a factor of about 1000. Toshiki Tajima is also a tireless champion of Extreme Light. He is very involved in scientific public outreach in Europe and particularly on the Saclay plateau and took part in projects such as ELI (Extreme Light Infrastructure), IZEST and ICAN. The Enrico Fermi Prize was created 14 years ago, on the occasion of Enrico Fermi's centenary, to reward particularly remarkable work led by members of the Italian Physical Society.

Copied from Press release:

https://www.golfeurope.edu/edu/submit/tajima_tajima_winner_enrico_fermi_prize

Following is my presentation to explain Wakefield acceleration at IMP2013.



DPP Endorsed conference (I-HAC member F. Cheng chair)

**18th International Congress on Plasma Physics
(ICPP 2016) 6/27 - 7/01** in Kaohsiung, Taiwan during June 27-
July 1, 2016 (<http://www.isaps.ncku.edu.tw/ICPP2016/>).
(<http://www.isaps.ncku.edu.tw/ICPP2016/>).



The scientific program of ICPP-2016 consists of eight areas:

- (1) Magnetic Confinement Plasmas (MCP)
Chair: Mitsuru Kikuchi (JAEA)
Co-Chair: Sadruddin Benkadda (AMU-CNRS)
- (2) Beam and Laser Plasmas (BLP)
Chair: Robert Bingham (STFC)
Co-Chair: Wei Lu (Tsinghua University)
- (3) Space Plasmas (SP)
Chair: Yoshiharu Omura (Kyoto University)
Co-Chair: Jay R. Johnson (Princeton Plasma Physics Laboratory)
- (4) Astrophysical Plasmas (AP)
Chair: Hui Li (Los Alamos National Laboratory)
Co-Chair: Ryoji Matsumoto (Chiba University)
- (5) Basic Plasma Physics (BPP)
Chair: George Morales (University of California Los Angeles)
Co-Chair: Yasushi Ono (University of Tokyo)
- (6) Plasma Diagnostics & Space Instrumentation (PDSI)
Chair: Tony Donne (EUROfusion)
Co-Chair: Yoshifumi Saito (ISAS/JAXA)
- (7) Low Temperature and Dusty Plasmas (LTDP)
Chair: Osamu Ishihara (Chubu University)
Co-Chair: Edward Thomas (Auburn University)
- (8) Plasma Applications (PA)
Chair: Satoshi Hamaguchi (Osaka University)
Co-Chair: Jong-Shinn Wu (National Chiao Tung University)

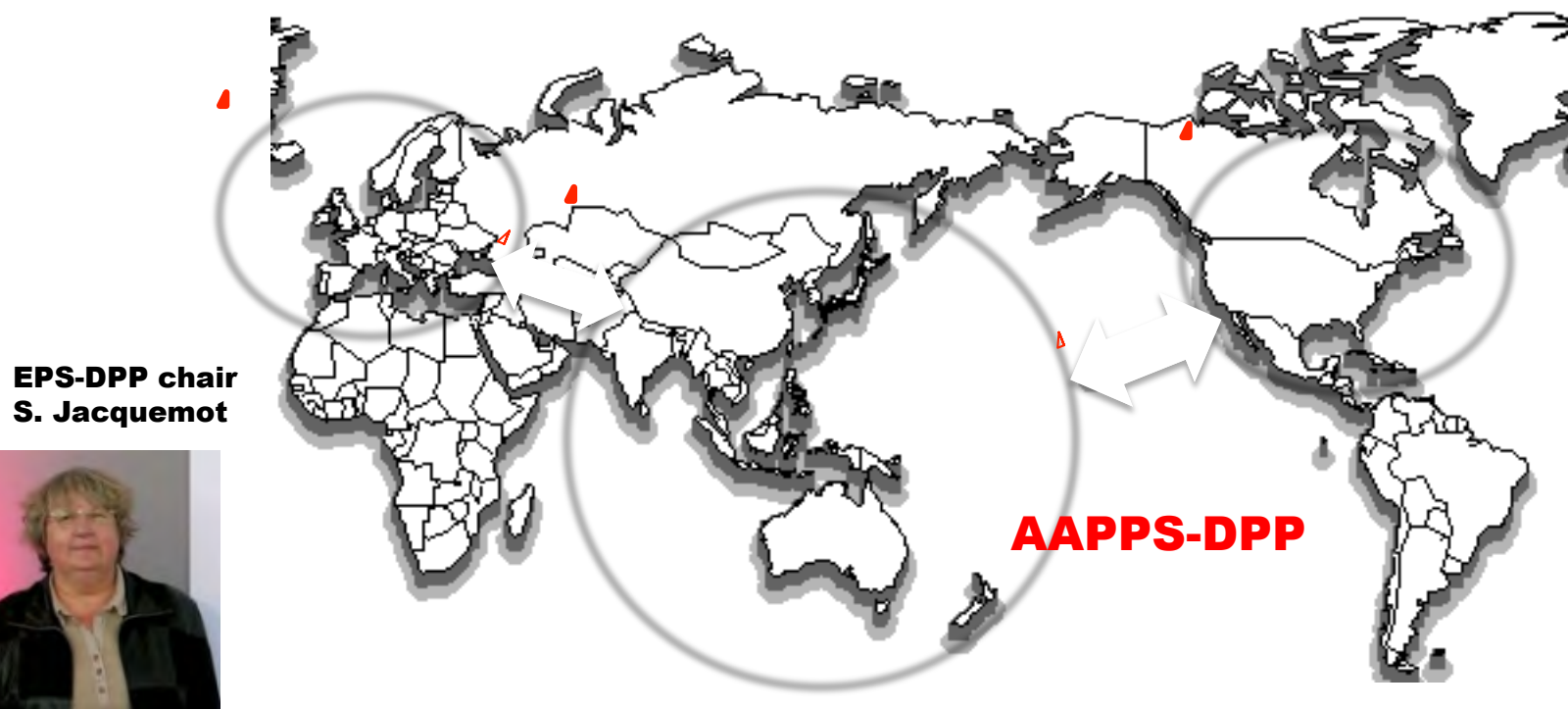
Appendix 2: ICPP 2016 Plenary and Invited

8 Plenaries: Bernard Bigot (ITER), Chandrashekhra Joshi (UCLA), Vladimir Nosenko (DLR), Hidenori Akiyama (Kumamoto U.), Hirotugu Kojima (Kyoto U.), Tito Mendoca (IST), Valery Nakariakov (U. Warwick), K. Shibata (Kyoto U.)
Public lecture: Atsuo Iiyoshi (Chubu University, Japan)
Invited: 30 MCP [T. Donne (EuroFusion), A. Kallenbach (IPP-Garching), W. Heidbrink (UC Irvine), M. Xu (SWIP), P. H. Diamond (UCSD), S. Inagaki (Kyushu U.), T. Klinger (IPP-Greifswald), Y. K. In (NFRU), C. Angioni (IPP-Garching), K. Imadera (Kyoto U.), T. S. Hahn (SNU), N. Miyato (JAEA), S. Briguglio (ENEA), T. Ido (NIFS), J. Ghosh (IPR), J. Berkery (PPPL), D. Zarzoso (Aix Marseille U.), V. Chan (USTC), E. Marmar (MIT), C. Theiler (CRPP), P. Martin (U. Padova, Italy), T. Kobayashi (NIFS), Q. Hu (HUST), M. Honda (JAEA), J. Garcia (CEA), H. Park (UNIST), V. Rozhansky (St. Petersburg P. U.), M. Muraglia (Aix Marseille U.), J. E. Menard (PPPL), W. Horton (U. Texas), Y. Ren (PPPL)]
20 LBP [V. Malka (LOA), P. Norreys (STFC, Oxford), G. Gregori (Oxford), W. Mori (UCLA), L. Silva (IST), Z. Najmudin (Imperial College London), J. Hua (Tsinghua U.), Y. Ding (Laser Fusion Research Center), C. Pai (Tsinghua U. & NCU), H. Azechi (Osaka University), C. H. Nam (IBS Center), R. Trines (STFC), K. Krushelnick (U. Michigan, USA), D. Hinkel (LLNL), J. Vieira (IST), H. Chen (LLNL), B. Remington (LLNL), M. Rosen (LLNL), V. Tikhonchuk (LMU), S. Weber (Extreme Light Infrastructure)]
29 PA [I. Adamovich (Ohio State U.), Y. Akishev (Troitsk Institute Innovation & Thermomuclear Research), J. P. Boeuf (CNRS and U. Toulouse), R. Boswell (ANU), C. Charles (ANU), E. H. Choi (Kwang Woon U.), U. Czarnetzki (Ruhr U. Bochum), T. Gans (U. York, UK), D. Graves (UCB), J. C. Hsu (National Taiwan U.), T. Kaneko (Tohoku U.), M. Keidar (George Washington U.), Y. Lebedev (Russian Academy of Science), T. Murphy (CSIRO), T. Ono (U. Tokyo), L. Pitchford (CNRS and U. Toulouse), S. Rauf (Applied Materials, Inc.), K. Takaki (Iwate U.), R. van de Sanden (FOM institute DIFFER), G. Y. Yeom (Sungkyunkwan U.), Y. Nishida (NCKU), S. Shinohara (TUAT), G. Cartry (Aix-Marseille U.), Y. Tanaka (Kanazawa University), J. Schulze (West Virginia University), K. Sasaki (Hokkaido University), G. Oehrlein (University of Maryland), J. K. Lee (Pohang University of Science and Engineering), A. Mase (Kyushu University)]
29 PDSI [T. S. Pedersen (IPP), J. Chung (NFRU), L. Reusch (University of Wisconsin-Madison), A. Melnikov (Kurchatov Institute), R. Magee (Tri Alpha Energy), W. Biel (FZJ, Germany), N. Luhmann (UC-Davis), J. Santos (CELIA, Bordeaux), K. Shigemori (Osaka University), R. Kumar (TIFR Mumbai), P. Patel (LLNL), K. Oades (AWE), W. Choe (KAIST), Milan Simek (Institute of Plasma Physics AVCR, Prague), Takayuki Ohta (Meijo U.), Greg. Severn (UCSD), L. Boufendi (University of Orleans), J. Roepcke (INP Greifswald), H. K. Fang (ISAPS/NCKU), I. Yoshikawa (U. Tokyo), S. Barabash (Swedish Institute of Space Physics (IRF)), A. Fedorov (IRAP Toulouse), D. Knudsen (U. Calgary), B. Ergun (U. Colorado), K. H. Glassmeier (U. Braunschweig), D. Miles (U. Alberta), Y. Saito (ISAS), K. W. Min (KAIST), A. Zaslavsky (OBSPM)]
19 BPP [N. Hurst (UCSD), G. Tynan (UCSD), C. Crabtree (NRL), G. Livadiotis (Southwest Research Institute), Y. Kosuga (Kyushu U.), V. Ilgisonis (Kurchatov National Center), M. Inomoto (U. Tokyo), T. Killian (Rice U.), Y. Nishimura (NCKU), K. Takahashi (Tohoku U.), B. Van Compernelle (UCLA), Y. Xu (Southwestern Institute of Physics), S. Usami (NIFS), M. Koepke (West Virginia U.), H. Bailung (Institute of Advanced Study in Science and Technology), M. C. Firpo (CNRS-Ecole Polytechnique), M. Toida (NIFS), E. de G. D. Pino (U. Sao Paulo), N. Nishizuka (National Institute of Information and Communications Technology)]
24 SP [G. Parks (UC Berkeley), L. J. Chen (U. New Hampshire), Y. Lin (Auburn U.), P. Delamere (U. Alaska), B. Anderson (Applied Physics Laboratory), C. Kletzing (U. Iowa), H. Li (LANL), J. Buechner (Max Planck Institute), D. Shklyar (IKI Russian Space Agency), D. Summers (Memorial University of Newfoundland), I. Cairns (U. Sydney), M. Hoshino (U. Tokyo), Y. Ebihara (Kyoto U.), K. Kusano (Nagoya U.), K. Seki (U. Tokyo), G. Choe (Kyung Hee U.), Q. Zong (Peking U.), Ya-Hui Yang (NCU), B. Lembege (LATMOS), M. Wan (U. Delaware), H. Hara (NAOJ), A. Vaivads (Swedish Institute of Space Physics), C. Kuranz (U. Michigan), S. Fu (Peking U.)]
26 AP [H. Hotta (High Altitude Observatory), H. Takahashi (NAO), B. Reville (Queen's U. Belfast), E. Amato (INAF/Osservatorio Astrofisico di Arcetri), Gianfranco Brunetti (INAF Istituto di Radioastronomia), T. Amano (U. Tokyo), J. Cho (Chungnam National U.), D. Ryu (UNIST), B. Li (School of Space Science and Physics, Shandong U.), S. Xu (PKU), A. Larzarian (U. Wisconsin), A. Bykov (Ioffe Institute), P. Drake (U. Michigan), M. Baring (Rice U.), F. Casse (U. Paris Diderot Paris VII), M. Nakamura (ASIAA), B. Qiao (Peking U.), T. Terasawa (U. Tokyo), M. Zhang (National Astronomical Observatories), S. Imutsuka (Nagoya U.), C. Forest (U. Wisconsin), Z. Yao (Institute of High Energy Physics), P. Bellan (Caltech), T. Suzuki (Nagoya U.), H. Ji (Princeton U.), C. Li (MIT)]

Cooperation among APS-EPS-AAPPS (DPP cooperation)

**European Physical society (EPS)
Division of plasma physics**

**American Physical society (APS)
Division of plasma physics**



**EPS-DPP chair
S. Jacquemot**



**EPS-DPP 2016 PC chair
P. Mantica**



**EPS-PC member: No PC member in the past.
Only Plasma and Fusion society asked nominate Invited.
Now, EPS-DPP asked me representing AAPPS-DPP
to come to EPS-PC.**

**Outcome: 3 Plenary/invited (2015) -> 9 Plenary/evening/
invited (2016) from Asia-Pacific**

AAPPS-DPP Prize : S. Chandrasekhar Prize of Plasma Physics

AAPPS-DPP



Prospectus : S. Chandrasekar Prize of Plasma Physics

AAPPS-DPP executive committee

1. Foundation of S. Chandrasekar Prize

Subrahmanyan Chandrasekhar (1910-1995) was an Indian-American astrophysicist who was awarded the 1983 Nobel Prize for physics for his theory of black hole. He worked in various areas including plasma physics. Plasma physics community is benefited from his works through his textbooks such as "Principles of stellar dynamics (1942)", "Plasma Physics (1975)", "Hydrodynamics and Hydromagnetic stability (1981)".

In 2014, we have established the Division of Plasma Physics under AAPPS. Asia-Pacific region is rapidly growing economically and scientifically. A large number of new programs on various fundamental and applied aspects of plasma physics are emerging in several countries of Asia and the Pacific regions. Young people taking up careers in plasma science in these regions look forward to the prestige of recognition by their peers and this becomes more equitable when your peers are intimately familiar with your work. This will also give a "sense of accomplishment" to the Asia-Pacific region as a whole because the body of significant work already pioneered by the Awardees will be ascribed to this region. The executive committee of division of plasma physics after consultation to I-HAC (International Honorary Advisory Committee) decided to establish Plasma Physics Prize after S. Chandrasekar to recognize seminal/pioneering works in this field.



S. Chandrasekhar

2. Description of the S. Chandrasekar Prize

The Chandrasekhar Prize is awarded by the Division of Plasma Physics of the AAPPS to recognize outstanding contributions to experimental and/or theoretical research in fundamental plasma physics and plasma applications in all fields of physics.

- i) **Rule:** This Prize will be given to an AAPPS-DPP member who has made seminal / pioneering contribution to any field of plasma physics or plasma applications as stated above.
- ii) **Nomination:** Necessary documents and time schedule for nomination will be announced in the DPP home page. DPP seeks outstanding nominations worldwide and especially from the Asia-Pacific region.
- iii) **Selection:** Selection will be made by the Chandrasekhar Prize Selection Committee annually.
- iv) **Selection Committee:** DPP-ExCo will appoint Chair and members of selection committee taking into account of the I-HAC recommendations.
- v) **Award Ceremony:** Certificate, Medal and a cash award will be bestowed to the awardees at the APCC conference held every three years.
- vi) **Obligations:** Chandrasekhar awardees should deliver invited talks in the APCC as well as contribute review papers to the DPP journal.

3. Call for Sponsorship and Contribution

Division of Plasma Physics (DPP) seeks the official sponsorship by any organizations and personal contributions in support of above prospectus. Contribution will be used for DPP operation and awards. Official sponsorship by the organization will be recorded in the diploma of DPP Awards and the home page. Official sponsorship shall be one or more units in the US \$ 5, 000. You may visit AAPPS-DPP HP at <http://aappsdpp.org/AAPPSDPPF/index.html>.

1st S. Chandrasekhar prize Prof. Em. Setsuo Ichimaru (2014)



Prof. Em. S. Ichimaru



Citation: For his contributions to the establishment of the theoretical basis of the science of **strongly coupled plasmas** and their applications, not only to laboratory plasmas and plasmas in solid- or liquid-state materials including fusion plasmas, but also to important astrophysical plasma phenomena including radiation and nuclear reactions.

Many congratulatory inc. APS-DPP chair

Certificate : DPP provide
Medal : From India (IPR)
Cash : China (SWIP)

AAPPS-DPP Prize : S. Chandrasekhar Prize of Plasma Physics

ITER NEWSLINE -

An award for India's PK Kaw

newsline | An award for India's PK Kaw

Professor Predhiman Krishan Kaw from the Institute for Plasma Research in India has been named the 2015 laureate of the Subrahmanyan Chandrasekhar Prize for "outstanding contributions" in the field of plasma physics, said a press release issued on 13 January by the Association of Asia-Pacific Physical Societies (AAPPS), Division of Plasma Physics.



The Subrahmanyan Chandrasekhar Prize has been awarded to Professor Kaw (left) for "outstanding contributions" in the field of plasma physics.

Recognized internationally for significant contributions to many areas of plasma physics, Professor Kaw has authored over 380 research publications in scientific journals. The prize specifically recognizes "seminal contributions in the areas of laser-plasma interactions, strongly coupled dusty plasmas, turbulence, and non-linear effects in magnetic fusion devices."

After obtaining a PhD at age 18 from the Indian Institute of Technology, Delhi, Professor Kaw spent time as a researcher at the Physical Research Laboratory in Ahmedabad, India, and the Princeton Plasma Physics Laboratory, New Jersey, US. In 1982 he returned to India to spearhead the establishment of a national magnetic fusion program, founding the Institute for Plasma Research and playing a leading role in gaining international recognition for the national program. Named Year of Science Chair by the Indian Department of Science & Technology, he continues to be active in research and in the mentoring and training of the younger generation of plasma physicists in India.

2015 S. Chandrasekhar prize Prof. Predhiman Kaw



Prof. Predhiman Kaw



Citation : For his seminal contributions in the areas of laser-plasma interactions, strongly coupled dusty plasmas, and turbulence, nonlinear effects in magnetic fusion devices.

Congratulatory messages

- APS-DPP chair D. Mayerhofer,
- EPS-DPP chair S. Jacquemot
- ITER DG B. Bigot

Certificate : From DPP

Medal : From India (IPR)

Cash : partly Japan(future energy association)

AAPPS-DPP Education program **: 2nd ASEAN plasma and fusion school Jan.17-22**

CEA(French)-TINT(Thailand) agreement, co-sponsored by AAPPS-DPP

T. Onjun (DPP chief secretary) : organizer

4 lecturers from Japan (AAPPS-DPP contribution)

58 students



Toward APPC-13

DPP started APPC 13 preparation from Feb 2015 according to By Law of Division of AAPPS. But it turned out to be we are not allowed after many contacts with LOC members.

DPP asked in last council for allowance to actively organize plasma physics program and attract more participants in the APPC-13.

For APPC-13 plenary for plasma physics, LOC implied only 1 plenary and DPP nominated S. Ichimaru through M. Hole (PC member) and IAC member Prof. M. Sasao but not selected.

[Note APPC-12 Organizing Committee gave 4 plenaries, 41 invited and 46 oral slots to DPP].

Invited speakers for APPC-13: According to LOC request, DPP submitted ~100 candidates of invited in July 2015. It seems be used as database for selection of plenary but no decision on invited after 6 months.

Proposal of new DPP Journal:

Negotiation to one publisher was not successful and another publisher gave satisfactory counter proposal to AAPPS-DPP.

1. Name of journal: “*Reviews of Modern Plasma Physics*” in short *RMPP*
2. Concept of RMPP:
 - High quality international **review journal specialized in plasma physics**
 - High **impact factor** above 10 (target)
 - Cutting-edge reviews and tutorials of modern plasma physics for the Asia-Pacific region
3. **Planned first publication : January 2017.**
4. **Term:** first contract may be **5 years** subject to renewal.
5. **Journal model:** *hybrid journal model*, i.e. a subscription journal with an option to choose open access. If author wants to select open access, he/she has to pay. If not, **free charge**.
6. First two years will be fully open access and from 3rd year, all articles will be closed access (subscription).
7. **Publication model:** *Continuous article publishing* model.
8. **Royalty to AAPPS-DPP:** **25% of net revenue** after 3rd year.
9. **Merit for AAPPS-DPP members:** **Free access to individual DPP members** but not for institutional members. **For authors, USD 100\$ book voucher.**
10. **S. Chandrasekhar prize laureates** are requested to write review papers.

Future plan

- **Patience until we have stable income (WEB adv., Journal, SC prize sponsor).**
- **Contribution to APPC-13.**
- **Start up DPP journal.**
- **DPP fellowship (related to journal)**
- **Plan for DPP's own conference.**
- **Selection rule of 2nd DPP chair/Ex Co.**