



Annual Report of Activity of Division of Plasma Physics

2017.4.7 AAPPS-DPP Chairman, Mitsuru Kikuchi

[1] Introduction

This is 4th year report of AAPPS-DPP. Since its approval in Jan. 19, 2014, we have developed our activities such as Homepage, DPP News, S. Chandrasekhar Prize, co-sponsorship to Asian plasma conferences, DPP annual meeting. In this AAPPS council, I am glad to report progress of DPP activities.

[2] Key Activities

1. Committees

1.1 Executive Committee (Decision body): No change See appendix.

1.2 We will select chair-elect according to AAPPS council endorsement.

After selection, we will form new ExCo and I-HAC.

2. Membership: Some increase.

3. AAPPS-DPP HP: DPP HP is operated voluntary work by Dr. Nagai. Excellent work!

Homepage work for AAPPS-DPP 2017 conference.

Challenge: Dr. Nagai want to leave from HP work, next year. We need next volunteer worker.

4. DPP mailing service: Mailing service is done by DPP chair. See [3].

Challenge: In the next round, we need someone other than chair to do.

5. DPP account: DPP accounts in US\$ and JPY are reported in last council.

Challenge: Stable budget income.

6. APPC-13 plasma session [4]

Vice Chair for APPC-13 Prof. M. Hole reported that the growth of the Asian activity in plasma physics and fusion science, crystallised by the formation of the Division of Plasma Physics in 2014 of the Association of Asia Pacific Physical Societies (AAPPS), led to a record 16 plasma sessions in the joint congress. Excellent job!

7. S. Chandrasekhar Prize of Plasma Physics (2017): [5]

2017 call for nomination announced (March 15-May 31).

8. AAPPS-DPP Young Research Award (2016, 2017): [6]

2016: 4 recipients got AAPPS-DPP young research award in Brisbane.

2017: Call for nomination March 13- April 30.

9. AAPPS-DPP Official Journal: Reviews of Modern Plasma Physics (RMPP) [7]

Publication delayed but 7 articles are under referee.

10. AAPPS-DPP annual conference [8]

1st Asia-Pacific Conference on Plasma Physics: September 18-23 in Chengdu, China

Hosted by Southwestern Institute of Physics (SWIP), LOC chair Y. Liu

40 plenary speakers and 250 invited speakers decided.

Call for contributed presentations March 10-April 30.

11. APCTP support to DPP

APCTP support to DPP is extremely helpful to keep DPP active. APCTP support DPP itself and S. Chandrasekhar laureate travels to APPC-13 and also AAPPS-DPP 2017.



35th AAPPS Council Meeting, April 7, 2017, Xi'an, China

[3] Records of DPP News

DPP News: after 34th AAPPS Council (Dec. 4-5)

- Dec. 12: Report on 43rd/44th AAPPS councils
- Dec. 12: Report on APPC-AIP 2016 (Plenary talks)
- Dec. 12: Report on APPC-AIP 2016: S. Chandrasekhar Prize Ceremony
- Dec. 12: AAPPS-DPP Young Research Award at APPC-AIP 2016
- Dec. 14: Reminder of deadline for Invited/Plenary nomination of 1st Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2017)
- Dec. 16: Deadline Extension (Jan.15) of invited speaker nomination for 1st Asia-Pacific Conference on Plasma Physics (AAPPS-DPP 2017) Chengdu, 2017
- Dec. 28: One of History of plasma physics series published on line (European Physical Journal, History)
- Dec. 28: Book information from DPP member (Prof. Heinrich Hora)
- Jan. 12: Reminder of deadline (Jan.15) for Invited nomination of AAPPS-DPP2017.
- Feb. 13: 1st call for abstracts (EPS-DPP)
- Feb. 23: DPP Facebook open (<https://www.facebook.com/profile.php?id=100015418299544&fref=ts>)
- Feb.28: AAPPS-DPP2017 invited speakers will be soon notified to candidates
- March 1: Process of Chair Elect Election announced to DPP members
- March 1: All list of plenary speakers of 1st Asia-Pacific Conference on Plasma Physics
- March 3: APTWG2017 - First announcement
- March 8: Position open at UIUC, USA
- March 8: Two year Postdoctoral Fellow at ANU in Multi-region Relaxed MHD Dynamics in Fusion and Stellar Plasmas
- March 10: Workshop on Smart and Multifunctional Materials for Micropropulsion and Cubesats
<http://emnmeeting.org/Europe/smm/smart-and-multifunctional-materials-in-electric-propulsion-and-cubesats>
- March 10: Call for Contributed presentations (oral and posters) for AAPPS-DPP2017
- March 13: Call for 2017 AAPPS-DPP Young research award
- March 13: Abstract submission: 8th IAEA Technical Meeting on "Theory of Plasma Instabilities" , 12-14 June, 2017
- March 13: Amendment on Call for 2017 AAPPS-DPP Young research award
- March 15: Call for 2017 S. Chandrasekhar Prize Nomination
- March 21: LOC Homepage of AAPPS-DPP2017 is open at <http://dpp2017.swip.ac.cn/>
- March 21: Invited speakers of AAPPS-DPP2017 - Fundamental plasma physics session
- March 21: Invited speakers of AAPPS-DPP2017 - Basic plasma physics session
- March 22: Invited speakers of AAPPS-DPP2017 - Applied plasma physics session
- March 27: Invited speakers of AAPPS-DPP2017 - Laser plasma physics session
- March 27: Invited speakers of AAPPS-DPP2017 – Magnetic Fusion plasma physics session
- March 28: Invited speakers of AAPPS-DPP2017 - Space plasma physics session



Important DPP News

AAPPS-DPP News 2016.12.12(1)

Report on AAPPS council Dec. 4, 2016

M. Kikuchi (AAPPS-DPP chair)

AAPPS (Association of Asia-Pacific Physical societies) council meetings (33 and 34 Council meetings, 9th Ordinary General Meeting) were held on Dec. 4 in Brisbane. In addition to council members, presidents of physical societies such as AIP president Warrick Couch, JPS president Y. Fujii also participated.

AAPPS President: Swan Kim (KO), Vice president: Gui Lu Long (CN), Secretary general: Sang Pyo Kim (KO).

At the 9th ordinary general meeting, next president is selected as GL Long, vice president as Fu Jen Kao (TW). New council members are Cathy Foley (AU), R.S. Rawat (SG, DPP member), J. Yokoyama (JP), etc.

All three divisions (DPP, DACG, DNP) reported their activities. DPP chair M. Kikuchi and DNP chair K. Tanaka are present but DACG chair Sasaki is not present and is reported by Sang Pyo Kim (vice-chair, DACG) as the proxy for Prof. Sasaki. DPP report is well received and change of ByLaw is approved. Motobayashi proposed that council should allow divisions to have autonomy in changing its ByLaw. APCTP is moving to support Division activities.

Status of AAPPS bulletin is reported by Yokoyama. MK proposed that each division may be able to contribute if a few pages are allocated for each division in all issue. This will be discussed in new Bulletin board.

IUPAP president Prof. Bruce McKeller reported status of IUPAP. 1st IUPAP president is W. Bragg. Mission of IUPAP is to assist to foster international cooperation in physics, and to help in application of physics toward solving problems of concern to humanity. IUPAP carries out this mission by sponsoring international meetings, --. Member countries are 60. Some AAPPS member countries are not IUPAP member.

Rob Robinson and Cathy Foley reported status of APPC-AIP 2016 as AU(515), JP(78), CN(32), IN(16), KO(13), PH(12) TW(10), --. President of Malaysian Institute of Physics Kuru Ratna Nathan introduced his plan for APPC-14 (last week of Aug 2019). MK alerted that week may conflict with Japanese entrance examination of graduate students so that period should be carefully selected.

35th AAPPS Council Meeting, April 7, 2017, Xi'an, China

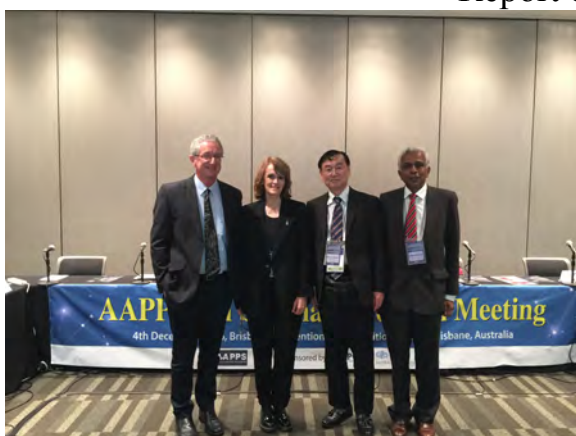


33 and 34 AAPPS council meetings.
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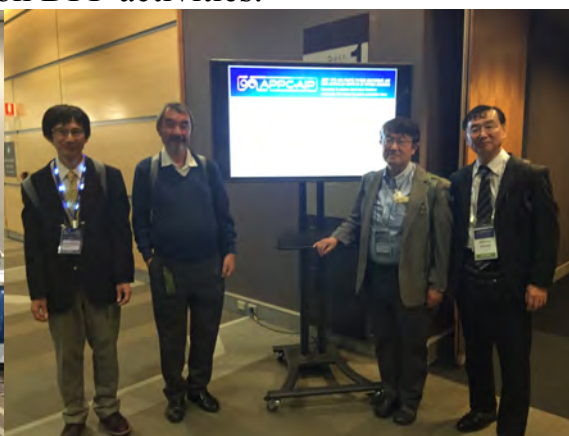
IUPAP report (president B.



Report on DPP activities.



AIP president W. Couch,
New council member Cathy Foley,
M.Kikuchi (DPP chair)
Kuru (MIP President)



New council member, J. Yokoyama
Dr. Motobayashi (Bulletin new chief editor)
Prof. Kazuhiro Tanaka (New DNP chair)

Report on APPC-AIP 2016 Congress (I)

Plenary talks

M. Kikuchi (AAPPS-DPP chair), M. Hole(vice chair)

13th Asia Pacific Physics Conference (APPC-13) has been held during December 4-8 in Brisbane convention and exhibition center.

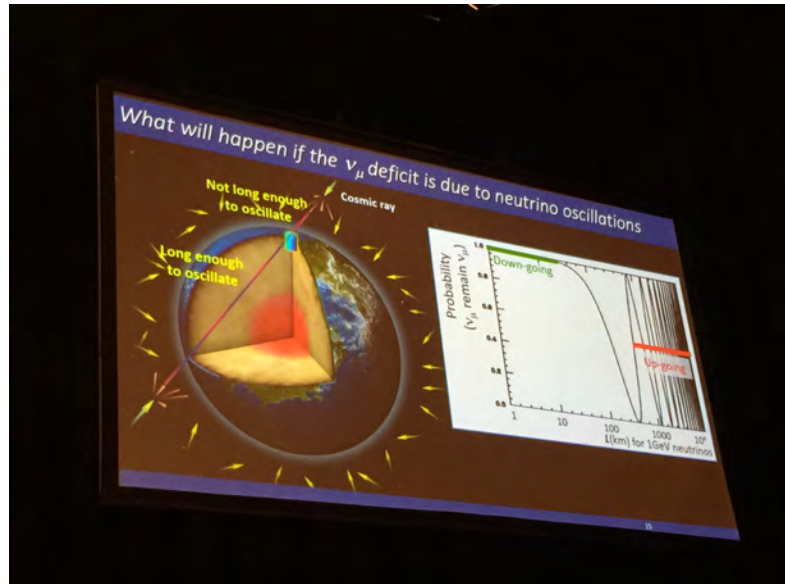
AIP president (Warrick Couch), organizing committee chair (Halina Rubinsztein-Dunlop) and AAPPS president (Swan Kim) gave opening addresses.

On the first day (Dec. 5), first plenary speaker is 2015 Nobel prize laureate in physics, Prof. Takaaki Kajita (U. Tokyo). He gave an evening talk as well. 2nd plenary is given by Richard Easter (U. Auckland, NZ) on cosmology.

On the second day, Jean Jacquinot (ITER organization) gave a plenary talk on ITER physics, which is well received. It includes physics and humor and understandable for all. Since I am chairing, there is no photo available. 2nd plenary was given by Y. Park(KISTEP) on woman leadership.

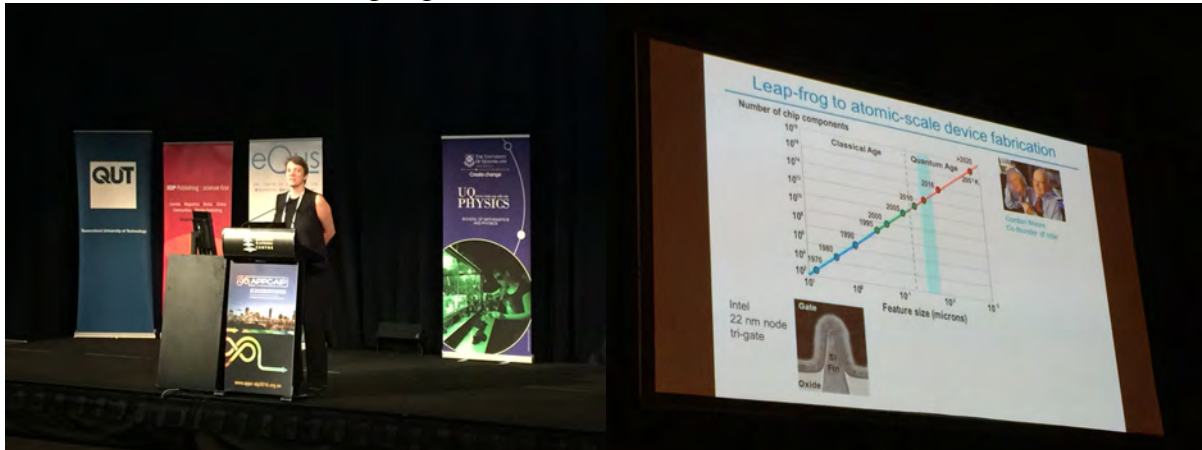
On the third day, Michelle Simmons gave plenary talk on quantum computing starting from Moore's law. 2nd plenary was given by David Reitze (LIGO) on gravitational wave observation in LIGO. Observation of the gravitational wave is a last tango of binary black holes and the dawn of gravitational wave astronomy.

On the fourth day, Alain Aspect (U. Orsay, France) gave a plenary talk on second quantum revolution. The second plenary is given by QK Xue (Tsinghua U.) on atomic level control of quantum material.

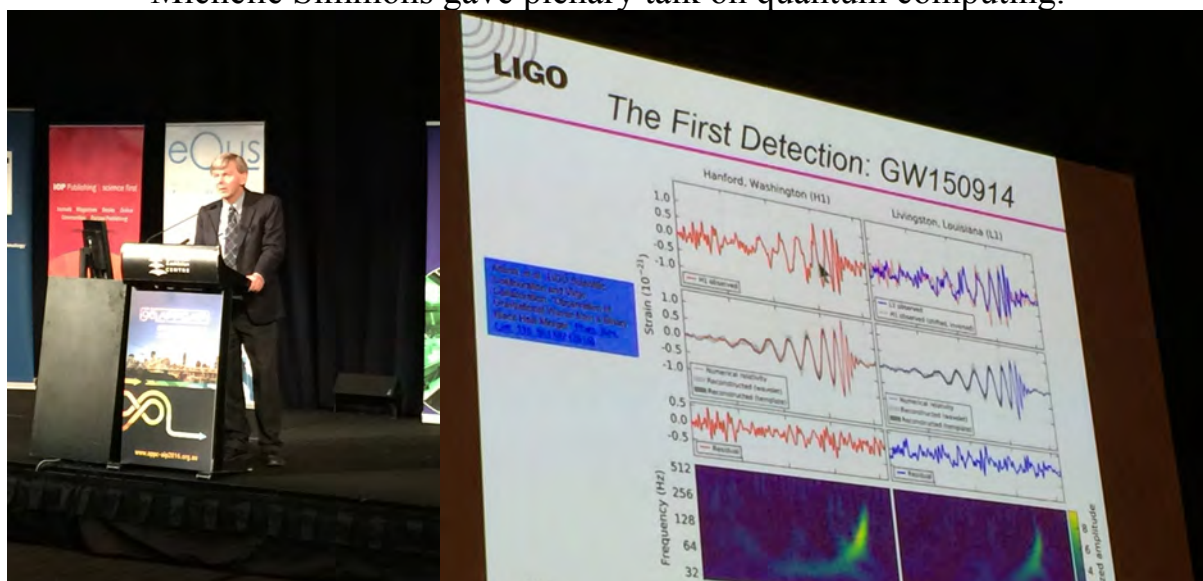


Prof. Kajita plenary on neutrino oscillation.

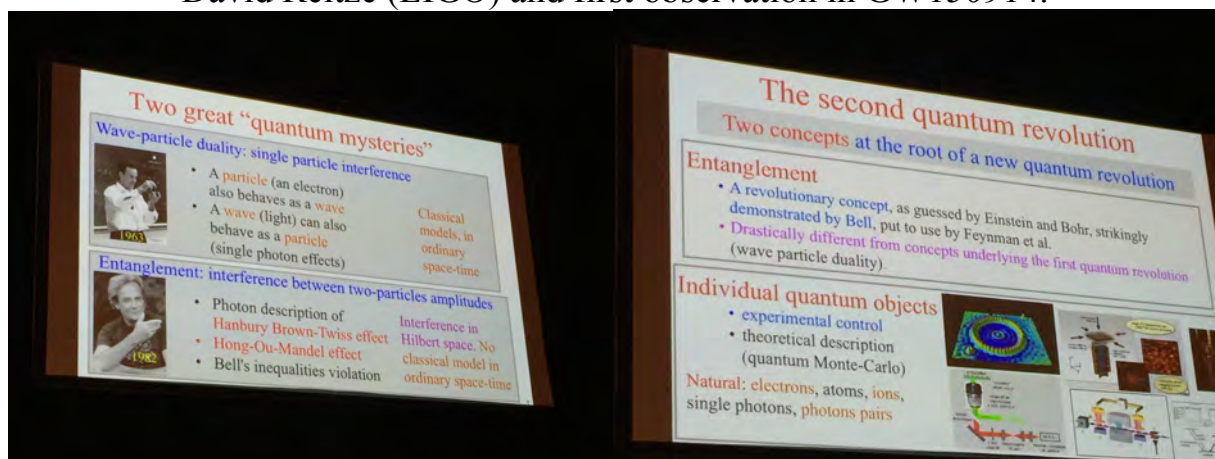
Up-down asymmetry is caused by oscillation during long distance between μ and τ neutrino.



Michelle Simmons gave plenary talk on quantum computing.



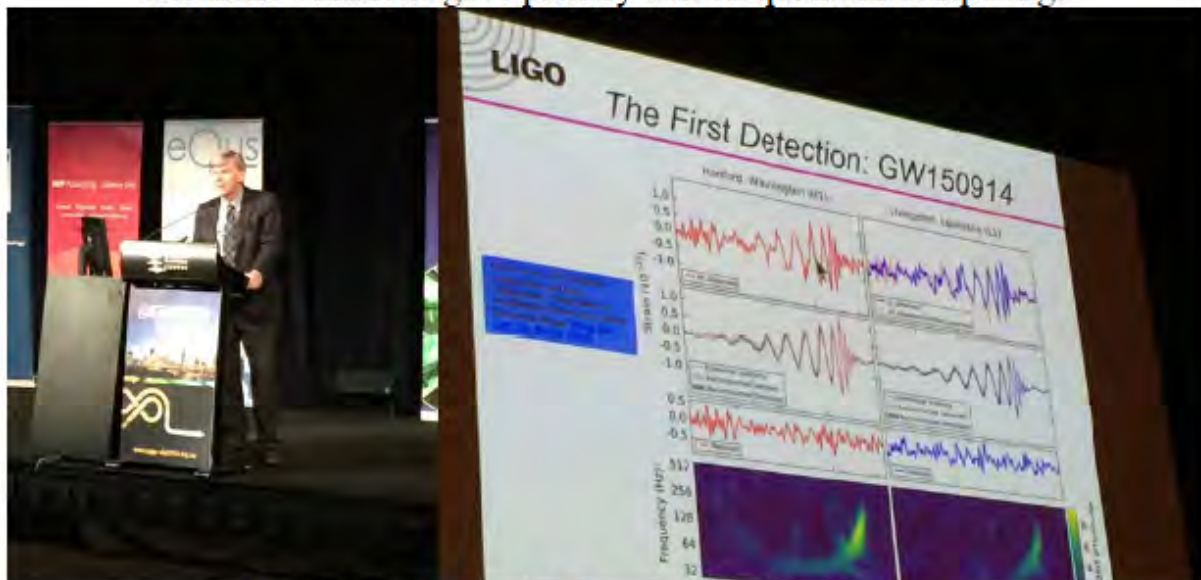
David Reitze (LIGO) and first observation in GW150914.



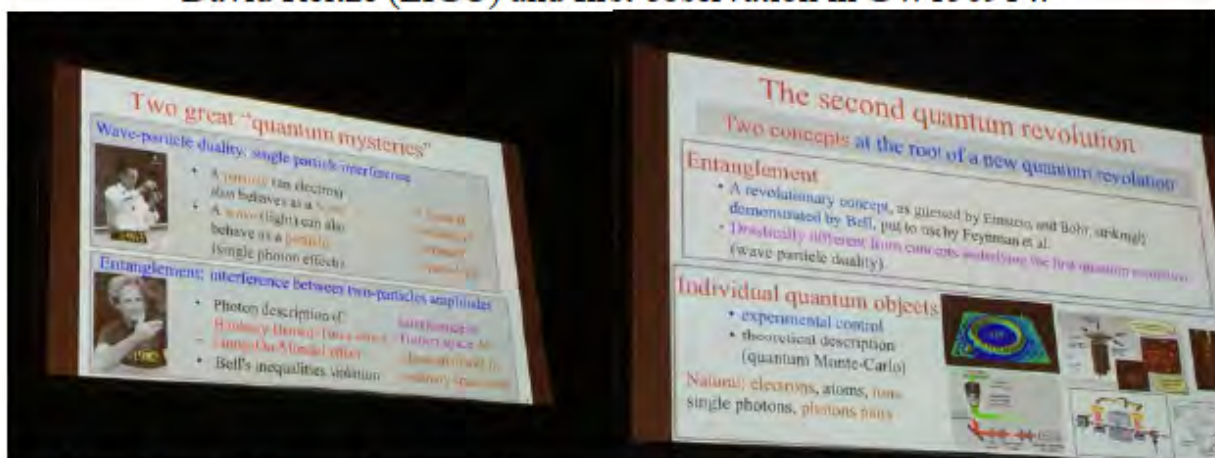
Alain Aspect talk on two quantum mysteries and second quantum revolution



Michelle Simmons gave plenary talk on quantum computing.



David Reitze (LIGO) and first observation in GW150914.



Alain Aspect talk on two quantum mysteries and second quantum revolution

Report on APAC-AIP 2016 Congress (II)

S. Chandrasekhar Prize Ceremony

M. Kikuchi (AAPPS-DPP chair), M. Hole (vice chair)

2014, 2015, 2016 S. Chandrasekhar Prize of plasma Physics Ceremony has been held at Conference Dinner of 13th Asia Pacific Physics Conference (APAC-13) in December 6 in Brisbane convention and exhibition center.

First of all, the main master of the conference dinner is AIP president Warrick Couch and he started with this AAPPS prize (AAPPS-DPP prize). He called Swan and me to come to the stage and Swan Kim (AAPPS president) ask three laureates to stand up and gave laudations. It was unfortunate that Prof. P. Kaw was not present due to VISA problem.

I have given the certificates and cash prize for PK and DM. The paper used for the certificates is ISE WASHI (Japanese special paper) made near ISE shrine in Japan. AIP president Prof. Warrick Couch gave medal (Medal is contribution from IPR (Institute for Plasma Research)). I appreciate all selection committee chairs (W. Namkung, TS. Hahm, Y. Omura) and members for their hard works for the selection.



Laudation by Swan Kim asked Prof. Setsuo Ichimaru and Prof. Don Melrose to stand up and gave laudations for them at the conference dinner in Brisbane, 2016.



Certificate giving, Medal giving by Warrick Couch and Laureate's speech (S. Ichimaru).
2014 S. Chandrasekhar prize is sponsored by SWIP.



Certificate and Medal giving and Lauteate's speech (P. Kaw (Mukesh Ranjan on his behalf)). 2015 S. Chandrasekhar prize was partially sponsored by Future Energy Research Association.



Certificate and Medal giving and Lauteate's speech (Don Melrose). Don introduced S. Chandrasekhar's work on plasma physics as well. 2016 S. Chandrasekhar Prize is sponsored by ANSTO.



DPP chair (MK) to introduce AAPPS-DPP. Photo with AAPPS representatives, GL Long (President elect), Prof. Ichimaru and his wife, Don, Swan, MK and Dr. HJ Choi. APCTP (Asia Pacific Center for Theoretical Physics) supported travel expenses for two Chandrasekhar laureates.



Report on APPC-AIP 2016 Congress (III)

AAPPS-DPP Young Research Award

M. Kikuchi (AAPPS-DPP chair), M. Hole (vice chair)

AAPPS-DPP Young research award is AAPPS-DPP award for

1. A young researcher who is less than 40 years old can be nominated (i.e., self-nominated or nominated by others) for this prize based on his/her significant contribution in the study of plasma-related science and engineering. Each candidate shall submit a short explanation and a published paper on the subject.
2. Each previous S. Chandrasekhar winner will look at the submitted short explanations and papers in order to decide his choice of up to 2 papers providing a “significant contribution on in the study of plasma-related science and engineering”.

More than 20 young researchers applied to AAPPS-DPP young research award but some cancelled due to travel grant issue (remaining are China (6), Japan (4), India (8), Australia (1), Philippines (1)). Since each laureate select independently, there is ample of possibility of duplication. Outcome is as follows,

Prof. S. Ichimaru selection:

1. **M. B. Dhanya (Vikram Sarabhai Space Centre, India)**, Proton entry into the near-lunar plasma wake for magnetic field aligned flow, on “observations of protons in the near-lunar and deeper wake, flowing along interplanetary magnetic fields, which could originate from the tail of the solar wind velocity distribution”.
2. **K. Takahashi (Tohoku University, Japan)**, Approaching the theoretical limit of diamagnetic-induced momentum in a rapidly diverging magnetic nozzle, on “measurements of axial momenta for a low-beta plasma injected in a rapidly diverging magnetic nozzle, demonstrating increase in the momentum as the magnetic fields inhibit the cross-field diffusion”.

Prof. P. Kaw selection:

1. **K. Takahashi of Tohoku University, Japan** for his outstanding and definitive contributions to the problem of helicon based plasma thruster through studies of theoretical limits of diamagnetic induced momentum in a rapidly diverging magnetic nozzle .
2. **Wei Lu of Tsinghua University, China** for his unique and highly intuitive elucidation of Relativistic Plasma Wakefields in the Blowout regime for particle acceleration.

Prof. D. Melrose selection:

1. **Tsyuyoshi Inoue (Nagoya University, Japan)** : For his contributions to the understanding of the acceleration of Galactic cosmic rays at shocks associated with young supernova remnants, in particular his well-cited paper ApJ 744, 71 (2012).
 2. **Dr Kazunori Takahashi (Tohoku University, Japan)**: For his experimental work giving insight into the basic plasma physics associated with helicon thruster development.
- Congratulations to all recipients!! Especially I note that Prof. Takahashi was named by all three S. Chandrasekhar laureates. I am also delighted to see one lady to receive this award from India.

Ceremony was held just before the conference dinner whose photos are shown below. Unfortunately, Prof. Wei Lu has to leave earlier by the change of governmental meeting on his budget.

1. Dr. Dhanya Mahalingam Balaram: “Proton entry into the near-lunar plasma wake for magnetic field aligned flow”, Geophysical Research Letters 40(2013)2913:

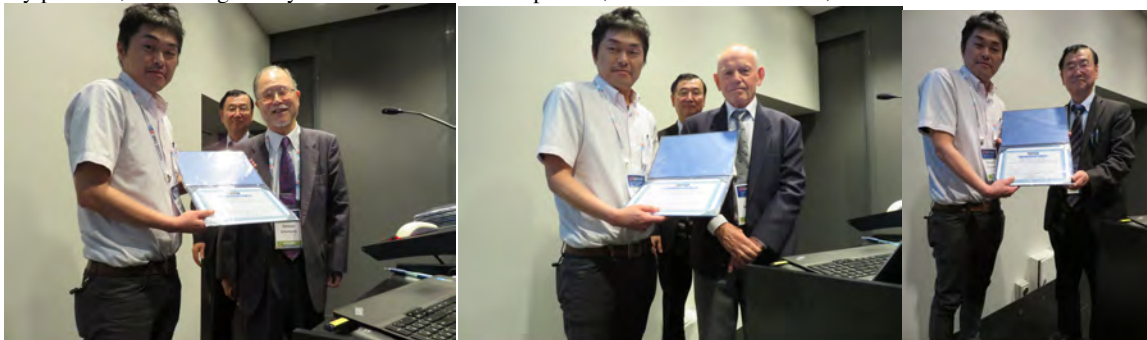
Ms. M. B. Dhanya is a young and dynamic researcher of my Laboratory who has made important contribution to the field of lunar plasma environment, particularly the night-side of Moon. Her research using the observations made by SARA experiment of Chandrayaan-1 mission (1st Indian mission to moon) has significantly improved our understanding on how the solar wind access the near lunar plasma wake (100-200 km from the surface). Dr. Anil Bhardwaj,



Ms MB Dhanya to receive DPP young research award from Prof. S. Ichimaru.

2. Dr. Kazunori Takahashi: ”Approaching the Theoretical Limit of Diamagnetic-Induced Momentum in a Rapidly Diverging Magnetic Nozzle”, PRL 110(2013)195003:

He has performed the direct measurement of the force exerted to the helicon plasma source/thruster, which has opened the door of the helicon thruster development. Since the force (i.e., the thrust in the electric propulsion) is equal in magnitude and opposite in direction to the axial plasma momentum exhausted from the system, this diagnosis identifies the absolute value of the axial plasma momentum. Furthermore, the individual measurements of the force exerted to the axial and radial walls, and to the magnetic nozzle, are performed, by which the detailed plasma momentum interactions with the magnetic field and the physical wall have been revealed. His experiments performed in the Australian National University (Australia), Iwate University (Japan), Tohoku University (Japan), have clearly shown that the axial plasma momentum is increased along the magnetic nozzle by the Lorentz force due to the spontaneous azimuthal plasma current (mainly electron diamagnetic drift current) and the radial magnetic fields, even in the current-free helicon plasma, while the experiment also demonstrated that spontaneous ion acceleration, which is often observed in laboratory plasmas, does not give any axial momentum to the plasma, Professor Akira Ando,



Mr K. Takahashi to receive DPP young research award from Prof. S. Ichimaru, Prof. D. Melrose and P. Kaw (MK on his behalf).

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3. Dr. Wei Lu: “Nonlinear Theory for Relativistic Plasma Wakefields in the Blowout Regime”, PRL 96(2006)165002

In the past decade, the field of plasma based acceleration has made much progress worldwide. I was very fortunate to be involved in this fast development, and also made my own contribution to the field. Notably, two of my early works on 3D nonlinear plasma wakefield theory (Lu et al., PRL 2006, citation 214) and scaling theory of laser wakefield acceleration in the 3D nonlinear regime (Lu et al., PRSTAB 2007, citation 349) has been well received worldwide as basic theories for the important nonlinear 3D regime of plasma based acceleration. In 2014, one of our predictions on high efficiency uniform acceleration (PRL 06, 08) has been verified experimentally at SLAC, and this work was published on the cover of Nature., Self nomination



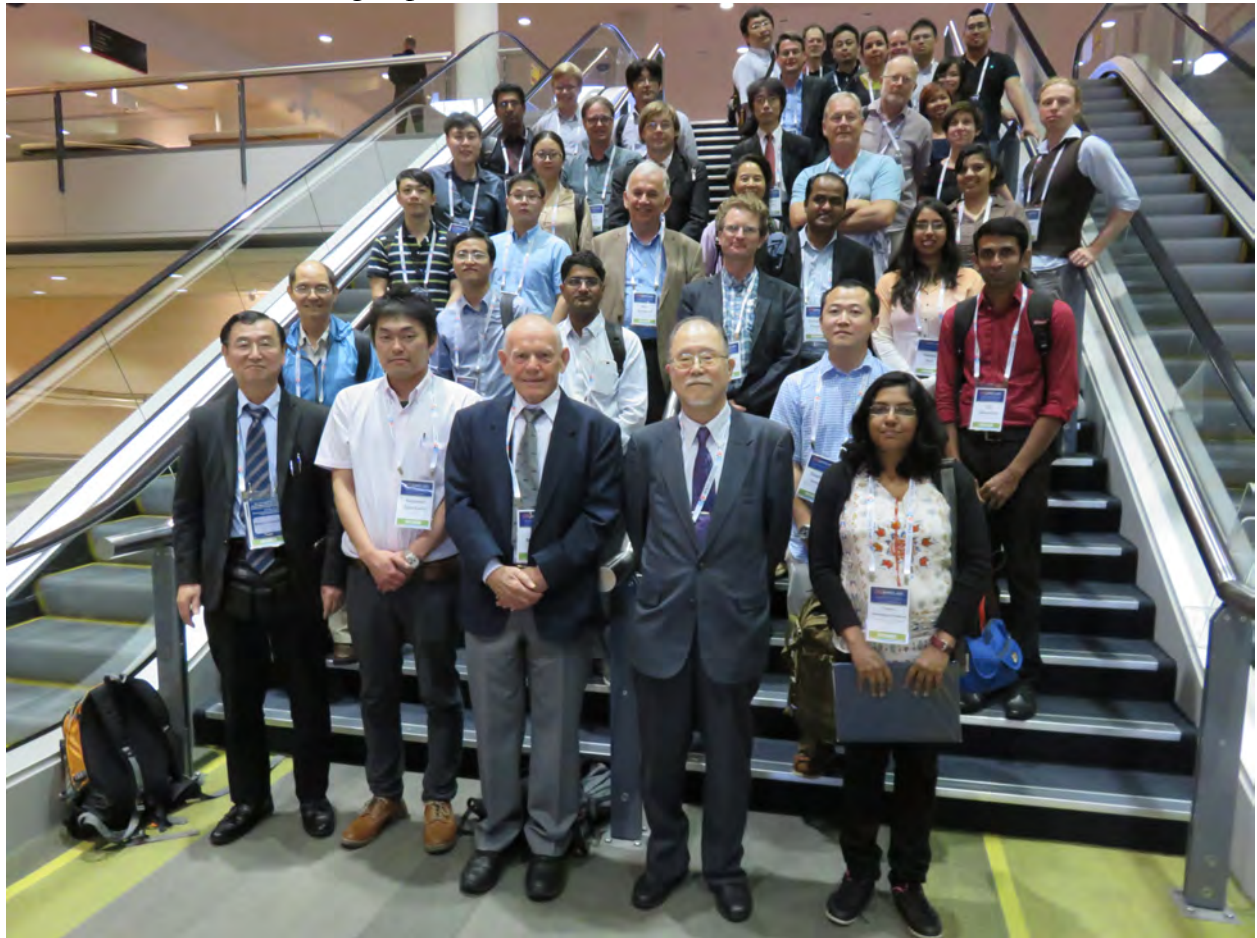
Wei Lu from Skype and Prof. Lin I to receive certificate for him.

4. Dr. Tsuyoshi Inoue: “Toward Understanding the Cosmic-ray Acceleration at Young Supernova Remnants Interacting with Interstellar Clouds: Possible Applications to RX J1713.7–3946”, The Astrophysical Journal 744(2012)71

Conventional theoretical modeling assuming uniform preshock state strongly suggested that the observed gamma-rays from young SNRs should not be attributed to hadronic origin, but to the inverse Compton process of accelerated electrons. However, performing high-resolution 3D magneto-hydrodynamics (hereafter, MHD) simulations, Dr. T. Inoue developed more realistic model of SNR shock propagation through inhomogeneous ISM. He found that interaction of interstellar cloud and shock wave induce strong magnetic field amplification up to 10^3 times the preshock strength, which is necessary for cosmic-ray acceleration, and that the observed gamma-rays spectrum revealed by Fermi Space Telescope is well explained by the hadronic origin owing to the spectral modification by cosmic-ray diffusion into the shocked clouds. His novel model was immediately recognized and has changed the standard picture of the community of the subject. Prediction has been confirmed recently by Sano et al./ Prof. Shu-ichiro Inutsuka,



Prof. Don Melrose to announce Dr. Inoue as his choice and the certificate.



Group photo of Two S. Chandrasekhar Prize laureates, AAPPs-DPP young research award recipients and session participants.

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[4] Summary of Plasma Session in APPC-13

AAPPS-DPP Vice Chair for APPC-13 Matthew Hole (ANU)



AIP Congress / 13th Asian-Pacific Physics Conference, Brisbane

The combined event was held from the 4th to 8th December 2016, Brisbane in Queensland and celebrated Australia's close links with our partners within the region. The theme of the conference was "*Physics in the Asian Century*". The growth of the Asian activity in plasma physics and fusion science, crystallised by the formation of the Division of Plasma Physics in 2014 of the Association of Asia Pacific Physical Societies (AAPPS), led to a record 16 plasma sessions in the joint congress. As delivered there were 108 presentations, comprising 82 oral presentations (1 plenary, 3 keynote, 32 invited, 47 contributed), and 26 poster presentations. The presentations spanned the full spectrum of plasma physics research: Basic and Laser-Plasmas (31 presentations), Fusion Confinement (44 presentations), Plasma Processing (16 presentations), Space Plasma and Astrophysics (17 presentations). The regional distribution was as follows: Australia: 29, Japan: 24, India: 27, China: 18, Phillipines: 1, Pakistan: 2 (Note: there is some student from Nepal as well). Four contributors had last minute difficulties with visas, and so gave their talks remotely. Prof. Jean Jacquinot was the plenary speaker for Plasma Physics, and presented a lecture on "Progress of ITER and related physics issues" on behalf of the ITER Organization. Prof. Jacquinot is a Senior Advisor to the ITER Director General and a former Director of the Joint European Torus, the world's largest and most ITER-relevant experiment. Prof. Jacquinot also gave side public lectures in Canberra (ANU Energy Change Institute Energy Update) and Chatswood, Sydney (Institute of Engineers Australia), and Lucas Heights, Sydney (Australian Nuclear Science and Technology Organisation). These talks were well attended and received.



Nomination Guidelines for 2017 S. Chandrasekar Prize

March 15, 2017, DPP executive committee

Any DPP members may submit one nomination or seconding letter for the prize in any given year. A nomination should include: A letter evaluating the nominee's qualifications in the light of the particular features of the prize and identifying the specific work to be recognized.

Nomination statement shall include:

1. Name of nominee (only one person)
2. Citation
3. Description of scientific accomplishments and its significance
4. CV of the nominee
5. Full list of publication with WoS citation for each paper (for possible papers recorded in WoS) and Google Scholar citation (inc. Books). Some information on published journal impact factor. You may use ResearcherID (<http://www.researcherid.com/Home.action>).
6. Seconding letters from four leading plasma physicists each letter less than 3 pages. Seconding letters are not limited from DPP member.
7. Commitment letter by the nominee to participate AAPPS-DPP2017 and to write a review article to the RMPP journal and the title of the paper.

DPP shall not give not more than once of this prize to the same recipient. The names of the Prize Selection committee will be posted on the DPP homepage only after its decision. The nomination statement shall be sent to the DPP chair electronically.

2017 S. Chandrasekhar Prize is sponsored by Division of Plasma Physics, AAPPS. The nomination deadline for 2017 S. Chandrasekar Prize is May 31, 2017 in Japan time.

Past recipients:

2014 : Prof. Setsuo Ichimaru

2015 : Prof. Predhiman Kaw

2016 : Prof. Donald B. Melrose



AAPPS-DPP

Appendix

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 AAPPS-DPP 2017 conference.
- vi) **Obligations:** Chandrasekhar awardee should deliver a plenary talk in the AAPPS-DPP 2017 as well as contribute a review paper to the DPP journal. The awardee is invited to chair the award selection committee of AAPPS-DPP young research award.



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[6] AAPPS-DPP Young Research Award 2017

We start call for nomination of 2017 AAPPS-DPP young research award to recognize one's significant contribution in the study of plasma-related science and engineering. The deadline for the nomination is April 30 (same as contributed abstract submission).

Specification is modified compared with one in the last year as follows,

1. AAPPS-DPP members with age less than 40 can apply (free nomination from DPP member, self-nominated or nominated by others) to DPP's young research award. Application is limited to only one of seven sub-disciplines.
2. They (applicants) have to give presentation at AAPPS-DPP 2017.
3. Nomination document (a short explanation and a key published paper on the subject supplemented by related papers) shall be sent to each PC chair.

Respective e-mails are,

Fundamental plasma physics	: "P.Diamond" <diamondph@gmail.com>
Basic plasma physics	: "A.Sen" <senabhijit@gmail.com>
Applied plasma physics	: "M.Shiratani" <siratani@ed.kyushu-u.ac.jp>
Laser plasma physics	: "Z.Sheng" <zmscheng@sjtu.edu.cn>
Space plasma physics	: "LC.Lee" <loucllee@gmail.com>
Solar/Astro plasma physics	: "K.Shibata" <shibata@kwasan.kyoto-u.ac.jp>
Magnetic Fusion plasma physics	: "B.Wan" <bnwan@ipp.ac.cn>

4. General PC chairs will check registration to the conference and multiple application. -> Note multi-application is not allowed.
5. DPP will set up Award Selection Committee (ASC) and ASC chair is 2017 S. Chandrasekhar Prize winner and members are PC chairs (TS Hahm, A. Sen, M. Shiratani, ZM Sheng, Lou Lee, K. Shibata, B. Wan) or his/her designated representative.
6. Each PC can nominate 0-1 candidates among applicants to the sub-discipline.
7. ASC selects 0-7 Awardees. Selection rule has to be set up by ASC.
8. Winner's names will be announced and receive certificates and some gift from 2017 S. Chandrasekhar prize winner on Thursday 12:00-12:30 at the plenary session.



Reviews of Modern Plasma Physics

Chair: Mitsuru Kikuchi

Chief Editor: T.S. Hahm; R. Boswell; Y.-K. Pu; K. Mima; Y. Lin; K. Shibata

ISSN: 2367-3192 (electronic version)

Journal no. 41614

Chairman: *Mitsuru Kikuchi*, National Institutes for Quantum and Radiological Science and Technology

Honorary Editor: *Robert Dewar*, Australian National University

D0 Fundamental Plasma Physics

Chief Editor: *Taik Soo Hahm*, Seoul National University

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D1 Basic Plasma Physics

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35th AAPPS Council Meeting, April 7, 2017, Xi'an, China

[8] 1st Asia-Pacific Conference on Plasma Physics

AAPPS-DPP executive committee (M. Kikuchi, chair) decided to organize the 1st Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2017 in short). This conference will be the general plasma physics conference in Asia-Pacific region, similar to the APS-DPP and EPS-DPP conferences on plasma physics.

AAPPS-DPP HP : <http://aappsdp.org/AAPPSDPPF/AAPPSDPP2017.html>
LOC HP : <http://dpp2017.swip.ac.cn/>
Abstract submission : <https://www.gakkai-web.net/gakkai/aappsdp/>

Plenary speakers: <http://aappsdp.org/AAPPSDPPF/DPP2017/plenary.html>

Invited speakers (fundamental): <http://aappsdp.org/AAPPSDPPF/DPP2017/fundaplphys.html>

Invited speakers (basic): <http://aappsdp.org/AAPPSDPPF/DPP2017/basplphys.html>

Invited speakers (applied): <http://aappsdp.org/AAPPSDPPF/DPP2017/applplasmaphys.html>

Invited speakers (Laser): <http://aappsdp.org/AAPPSDPPF/DPP2017/lasplaphys.html>

Invited speakers (space): <http://aappsdp.org/AAPPSDPPF/DPP2017/spaplaphys.html>

Invited speakers (solar/astro): <http://aappsdp.org/AAPPSDPPF/DPP2017/solastrophys.html>

Invited speakers (magnetic fusion): <http://aappsdp.org/AAPPSDPPF/DPP2017/magfusplphys.html>



Welcome to 1st Asia-Pacific Conference on Plasma Physics

AAPPS-DPP executive committee (M. Kikuchi, chair) decided to organize the 1st Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2017 in short). This conference will be the general plasma physics conference in Asia-Pacific region, similar to the APS-DPP and EPS-DPP conferences on plasma physics.

Scope of the AAPPS-DPP2017

AAPS-DPP2017 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.

Welcome to
Chengdu



International organizing Committee Chair: Liu Chen

Co-chair: M. Kikuchi

Local organizing Committee Chair: Yong Liu

Registration **New!**
Start: 20 January 2017

Abstract Submission **New!**
Deadline: 30 April 2017

35th AAPPS Council Meeting, April 7, 2017, Xi'an, China

Country and Regional distribution of Invited and Plenary Speakers

Coutry/Region	F	B	A	L	S	SA	MF	Total	Plenary
China	8	8	8	15	14	5	38	96	11
Japan	5	5	8	8	2	10	9	47	13
Korea	4	0	1	4	0	3	10	22	2
USA	5	2	0	0	2	2	14	25	6
India	0	7	2	3	1	4	1	18	2
France	1	1	1	3	0	0	3	9	1
Taiwan	1	2	0	0	5	0	0	8	1
Germany	0	2	0	0	1	0	3	6	0
Australia	1	0	1	0	0	2	1	5	0
UK	1	0	1	1	0	0	2	5	0
Italy	1	0	0	0	0	0	2	3	0
ITER	0	0	0	0	0	0	2	2	1
Macau	0	1	0	0	0	0	0	1	0
Singapore	0	0	1	0	0	0	0	1	0
Malaysia	0	0	1	0	0	0	0	1	0
Nepal	0	0	1	0	0	0	0	1	0
Slovenia	0	0	1	0	0	0	0	1	0
Sweden	0	0	0	0	0	0	1	1	0
Pakistan	0	0	0	0	0	0	1	1	0
Israel	0	0	0	0	0	0	1	1	1
Russia	0	0	0	0	0	0	0	0	1
Tbd									1
Total	27	28	26	34	25	26	87	253	40

35th AAPPS Council Meeting, April 7, 2017, Xi'an, China

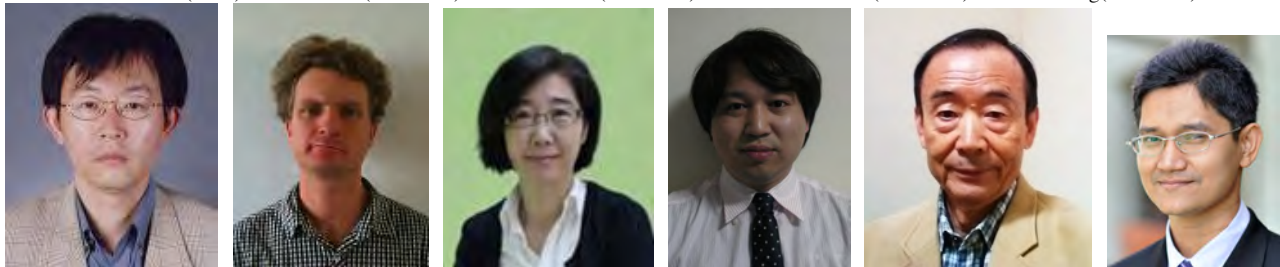
Appendix : Current List of DPP ExCo members and I-HAC

1. Executive Committee

The Executive Committee is a governing body of the DPP, which consists of the division officers and the ExCo secretary. The division officers are Division chair, Vice Chairs, Chief Division Secretary, and Division secretary.



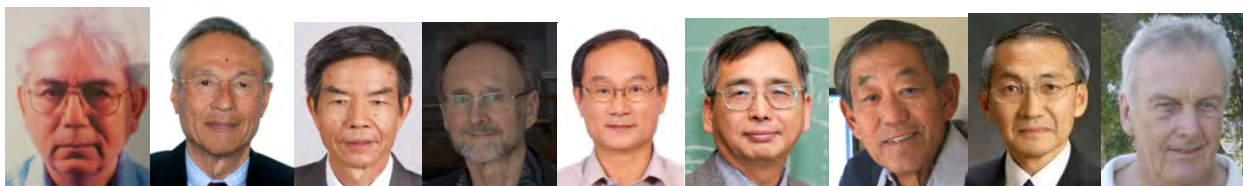
Dr./Prof. M. Kikuchi(chair) Prof. L. Chen(vice chair) Prof. A. Sen(vice chair) Prof. M. Shiratani(vice chair) Prof. Z. Sheng(vice chair)



Prof. D. Ryu(vice chair) A/Prof. M. Hole(vice chair) Prof. L. Hau(chief secretary-> Vice chair for space plasma physics) A/Prof. K. Imadera (secretary) Dr. H. Nagai (HP secretary), A. Prof. T. Onjun (chief division secretary as of Jan.30, 2015)

2. International Honorary Advisory Committee (I-HAC)

The Role of I-HAC (International Honorary Advisory Committee) is to advice ExCo for DPP operation and sometime would take action by the request of DPP Chair on behalf of ExCo. The member of I-HAC shall be a plasma physicist with outstanding scientific achievement or significant contribution to the AAPPS-DPP, who could make important advices to DPP-ExCo (age approximately above 60). New I-HAC member in 2016 is Prof. B. Buti.



Prof. P. Kaw (Chair) Prof. A. Hasegawa Prof. C. Yu Prof. R. Dewar Prof. C.Z. Cheng Prof. C.S. Chang Prof. F.F. Chen Prof. R. Hatakeyama Prof. R. Boswell



Prof. T. Tajima Prof. X.T. He Prof. K. Mima Prof. K. Shibata Prof. L.C. Lee Prof. Z. Pu Prof. W. Namkung Prof. M. Sasao Prof. H. Takabe



Prof. C. Pan Prof. Bimula Buti
(joined Sept. 26, 2014) (joined Feb. 1, 2016)