To the President of AAPPS January 10, 2014

Proposal of Foundation of Plasma Physics Division under AAPPS

M. Kikuchi on behalf of DPP supporters

1. Introduction

It is important to strengthen the physics cooperation and collaboration among Asian Physicists and Physical Society similar to the APS and EPS stated by AAPPS president.

(http://www.aapps.org/myboard/read.php?id=12&Page=1&Board=about_aapps).

APPC-12 in July 14-19 hosted by AAPPS, JPS, JSAP is a successful physics conference having 1290 participants among which > 300 are from plasma sciences. Plasma science program (D) in APPC-12/ASEPS (see Table 1) consists of (D1) Plasma Physics, (D2) Plasma Processing, (D3) High Intensity Laser Plasma Science, and (D4) Space, Solar and Astro Plasmas. In the APPC-12/ASEPS, we had 4 plenary speakers, 41 invited speakers, 46 oral speakers, and 215 poster presentations. In total, 306 presentations were made. Every morning, we had more than 50 poster papers and the intensive discussions are made during the presentation (Fig.1). In every afternoon, we have two parallel oral sessions, where 41 invited talks and 46 oral talks were given, which included summary talks in 4 areas (D1, D2, D3, D4). We appreciate all plenary, invited, oral, poster participants for their excellent contributions. We especially appreciate enormous efforts made by the summary speakers to collect important works. In this sense, we believe that the plasma science program in APPC-12/ASEPS is a great success. In order to sustain and to enhance such scientific activities, it is effective to establish a Plasma Physics Division under the Association of Asia Pacific Physical Society (AAPPS). Thus, we propose to the APPS President to establish the Plasma Physics Division in accordance with the Bylaws for AAPPS Divisions

(http://www.aapps.org/myboard/read.php?id=9&Page=1&Board=about_aapps&FindIt=&FindText=).

Table 1: APPC-12/ASEPS Plasma Science Program

APPC-12/ASEPS Plasma Science Program [4 Plenaries, 41 Invited, 46 Orals, 215 posters=306 presentations)

	14-Jul Sunday	15-Jul Monday		16-Jul Tuesday		17-Jul Wednesday		18-Jul Thrsday		19-Jul Friday
9:00-12:20		Opening P-1 :M.Kobayashi, K.Kitazawa, P-2 : Liu Chen, C.H. Nam		ASEPS P-1: I. Antoniadis, S.Maier ASEPS P-2: T.Tajima, T.Leisner		P-3:Y. Wang,P. Chen, H. Tamura P-4:H. Hosono,M.Simmons,P.Jolly		P5 : A. Mehta, R. Robinson, I. Ko, P6 : Y. Arakawa, HH Wen, QK Xue		P7: K. Shibata, PK Chu, S. Iijima, Closing
12:20-14:10		Poster Session (57 posters): D1-PMo: 01-28 D2-PMo: 01-20 D3-PMo:01-09		Poster Session (54 posters): D1-PTu: 01-20 D2-PTu: 01-16 D4-PTu: 01-18		Poster Session (53 posters): D1-PWe: 01-34 D2-PWe: 01-10 D3-PWe: 01-09		Poster Session (51 posters): D1-PTh: 01-23 D2-PTh: 01-19 D3-PTh: 01-09		
14:10~16:10	Public lectures	D1-1(303) Chair SS Kim (Toroidal plasma and MHD)	D3-1 (304) Chair K. Tanaka (High Energy Density Science)	D1-2(303) Chair JQ Dong (Turbulence)	D4-2 (304) Chair K. Shibata (Solar and Astro Plasma)	D1-3(303) Chair O. Ishihara (Basic plasma)	D4-3 (304) Chair R. Matsumoto (Plasma simulation)	D1-5(303) Chair: K. Ida (Transport)	D2-4 (302) Chair M. Kambara (Plasma Material Science)	
		D1-1-I1 H. Park	D3-1-I1 Anle Lei	D1-2-I1 A.Fujisawa	D4-2-I1 G.Bicknell	D1-3-I1 Lin I	D4-3-I1 M.Hoshino	D1-5-I1 S.S. Kim	D2-4-I1N.M. Hwang	
		D1-1-I2 Z. Lin	D3-1-I2 R. Kumar	D1-5-I2 G. Xu	D4-2-I2 S.Tsuneta	D1-3-I2 Z. Yoshida	D4-3-I2 M.Miesch	D1-2-I2 J.Q. Dong	D2-4-I2 S. Mukherjee	
		D1-1-O1 Y. Ono D1-1-O2 K. Ida	D3-1-I3 Y. Sakawa	D1-2-O1 T. Tokuzawa D1-2-O2 Z.Qin	D4-2-O1 T. Suzuki D4-2-O2 K.Nagaoka	D1-3-O1 K.Takahashi D1-3-O2 H. Muneta	D4-3-I3 Y. Lin	D1-5-O1 KC Lee D1-5-O2 I.Shao	D2-4-I3 R. Boswell	
		D1-1-O3 S.Masamune D1-1-O4 G. Yun	D3-1-O1 Y.Kawazura D3-1-O2 A.Sagisaki	D1-2-O3 P. Sun D1-2-O4 C. Moon	D4-2-O3 T. Sano D4-2-O4 T.Kawashima	D1-3-O3 T. Tanikawa D1-3-O4 C.Yang	D4-3-O1 H.Hotta D4-3-O2 T.Amano	D1-5-O3 W.Zhong D1-5-O4 S. Kobayashi	D2-4-O1 P. Neumann D2-4-O2 HJ Ramos	
16:30~18:30		D2-1 (303) Chair T.Wei (Semiconductor device processing)	D4-1 (304) Chair T. Hada (Space Plasma)	D2-2 (303) Chair R. Boswell (Plasma Green Technology)	D3-2 (304) Chair TY. Tou (High Pressure Laser Science)	D2-3 (303) Chair K. Kitano (PlasmaLife Science)	D1-4 (304) Chair A. Ando (Multiple)	D10 (303) ChairK. Mima (Physics oriented joint session& D1,D4 summary)	D20 (302) Chair E. Neyts (Application oriented joint session& D2,D3 summary)	
		D2-1-I1 K. Kurihara	D4-1-I1 C.Z.Cheng	D2-2-I1 T.C Wei	D3-2-I1 R. Kodama	D2-3-I1S.Hamaguchi	D1-4-I1 M. Hole	D-10-I1 A.Hasegawa	D-20-I1 F.F.Chen	
		D2-1-I2 C. Hsu	D4-1-I2 M.A. Lee	D2-2-I2 E. Neyts	D3-2-I2 J. Fuchs	D2-3-I2 X.P. Lu	D1-4-I2 S.H. Ku	D-10-I2 K. Itoh	D-10-I2 R. Hatakeyama	
		D2-1-I3 T. Kaneko	D4-1-O1 Y.Katoh D4-1-O2H.Higashimori	D2-2-I3 P. Mukherjee	D3-2-O1 S.Kawata D3-2-O2 Y.Mishima	D2-3-O1 K. Kitano D2-3-O2 T. Shirafuji	D1-4-O1 A. Okamoto D1-4-O2 M. Sasaki	D-10-I3 A. Son (D1 summary)	D-10-I3 H. Fujiyama (D2-Summary)	
		D2-1-O1 JH Haleh D2-1-O2 S. Kamatsu	D4-1-O3 Y.Matsumoto D4-1-O4 S.Zenitani	D2-2-O1 G. Naren D2-2-O2 S. Muradia	D3-2-O3 Y.Kishimoto D3-2-O4 SS Yap	D2-3-O3 D. Subedi D2-3-O4 L.Wen	D1-4-O3 H. Nakano D1-4-O4 Y.Saitou	D-10-I4 R.Matsumoto (D4 summary)	D-10-I4 H.Takabe (D3 Summary)	
18:40~20:40 (or to 21:30)	APPC-12 Welcome Cocktail					APPC-12 Banquet				

Fig. 1 Selected Photos of APPC-12/ASEPS and its Plasma Science Program

2. Proposal of the Plasma Physics Division under AAPPS

[1] DPP may be a regular division

[2] Subjects of the DPP
may include,
D1 **Plasma Physics**: Toroidal plasma, Plasma Turbulence, Plasma Transport, Magneto Hydrodynamics, Plasma Wave and Nonlinear phenomena, Plasma simulation, Plasma diagnostics, atomic and molecular processes in plasmas, non-neutral plasmas, complex and dusty plasmas, plasma propulsion, etc.
D2 **Plasma Processing**: Semi-conductor device processing, plasma green technologies, plasma life science, plasma material science, etc.
D3 **High Intensity Laser Plasma Science**: High energy density science, laser plasma interaction, plasma wake field acceleration, laboratory astrophysics, etc.
D4 **Space, Solar and Astro plasmas**: Space plasma physics, Earth Dynamo, Solar plasma physics, Astro plasma physics, etc.

[3] The Rules of the Division
1. **Name**: Division of Plasma Physics
2. **Membership**: Scientists with two member recommendations. Membership may be removed in some cases. No membership fee in the beginning, and is subject to EXCO decision. Membership needs registration.
3. **EXCO**: Chair, Vice Chairs, Secretaries. Govern the Division. Chair to represent the Division.
4. **Standing Committees**: Honorary Advisory Committee, Program Committee, to be decided in EXCO.

Draft Articles in the attachment. Details will be decided by EXCO and will be proposed to the Council for approval.

[4] Core Members of the Division

Core members will be selected among following supporting members: Candidate Chair: M. Kikuchi

Supporting members:

The Physical Society of Japan and The Japan Society of Applied Physics:

[1] Prof. Yasuaki Kishimoto, Director of the Institute of Advanced Energy, Kyoto University
[2] Prof. Osamu Ishihara, ex-Dean, Faculty of Engineering, Yokohama National University
[3] Prof. Zensho Yoshida, Department of Advanced Energy, the University of Tokyo
[4] Prof. Yasushi Ono, Department of Advanced Energy, the University of Tokyo
[5] Prof. Akira Ando, Faculty of Engineering, Tohoku University
[6] Prof. Teruo Saito, Director of FIR Center, Fukui University
[7] Prof. Akihide Fujisawa, Institute of Applied Mechanics, Kyushu University
[8] Prof. Tomohiko Watanabe, National Institute of Fusion Science, NINS
[9] A/Prof. Kenichi Nagaoka, National Institute of Fusion Science, NINS
[10] A/Prof. Makoto Furukawa, Graduate School of Engineering, Tottori University
[11] Em Prof. M. Sasao, Faculty of Engineering, Tohoku University/ Doshisha University
[12] Prof. Masaharu Shiratani, Faculty of Engineering, Kyushu University
[13] Prof. Toshiro Kaneko, Faculty of Engineering, Tohoku University
[14] Prof. Satoshi Hamaguchi, Graduate School of Engineering, Osaka University, Osaka
[15] Em Prof Kunioki Mima, Institute of Laser Engineering, Osaka University, Osaka
[16] Prof. Hideaki Takabe, Institute of Laser Engineering, Osaka University, Osaka
[17] Prof. Kazuo A. Tanaka, Graduate School of Engineering, Osaka University, Osaka
[18] Prof. Kazunari Shibata, Director of Kwasan Observatory, Kyoto University
[19] Prof. Ryoji Matsumoto, Department of Physics, Chiba University
[20] Prof. Shu-ichiro Inutsuka, Department of Physics, Nagoya University
[21] Prof. Toru Hada, Interdisciplinary Graduate School of Engineering Science, Kyushu University
[22] Prof. Masato Nakamura, Institute of Space and Astronautical Science, JAXA
[23] Prof. Masahiro Hoshino, Department of Physics, the University of Tokyo
[24] Dr./Prof. Mitsuru Kikuchi, Supreme Researcher, Japan Atomic Energy Agency, Chinese Academy of Science Visiting Professor, Guest Prof. Osaka University, Visiting Prof. Fudan University& South Western Institute of Physics

The Chinese Physical Society:

[1] Prof. Liu Chen, Director, Institute for Fusion Theory and Simulation, ZheJiang University / Em. Above scale Prof. UC Irvine, USA.
[2] Prof. Xiao gang Wang, Director, Center for Fusion Simulation, Department of physics, Peking University
[3] Prof. Zhihong Lin, Department of Physics, UC Irvine, USA/ Department of Physics, Peking University.
[4] Prof. Yaming Zou, Director, Modern Physics Institute, Fudan University.
[5] Prof. Zhe Gao, Head of SUNIST Laboratory, Department of Engineering Science, Tsinghua University
[6] Prof. Xuru Duan, Director of Center for Fusion Science, South Western Institute of Physics.
[7] Prof. J.Q. Dong, Center for Fusion Science, South Western Institute of Physics.
[8] Prof. Xuantong Ding, Center for Fusion Science, South Western Institute of Physics
[9] Prof. Baonian Wan, Deputy Director, Institute of plasma physics, Chinese Academy of Science.
[10] Prof. Nong Xiang, Head of Theory division, Institute of plasma physics, Chinese Academy of Science
[11] Prof. G.S. Xu, Institute of Plasma Physics, Chinese Academy of Science.
[12] Prof. Wandong Liu, Executive Dean, School of Physical Sciences, University of Science and Technology of China
[13] Prof. Jian Zheng, Laboratory of Plasma Physics and Department of Modern Physics, University of Science and Technology of China
[14] Prof. Shaojie Wang, Department of Modern Physics, University of Science and Technology of China
[15] Prof. Weixing Ding, Department of Modern Physics, University of Science and Technology of China
[16] Prof. Yu Lin, Department of Geophysics and Planetary Science, University of Science and Technology of China
[17] Prof. Ge Zhuang, School of Electrical & Electronic engineering, Huazhong Univ. of Science and Technology
[18] Dr. Anle Lei, Shanghai Institute of Laser Plasma, Shanghai
[19] Prof. Yutong Li, Institute of Physics, Chinese Academy of Sciences
[20] Prof. Liming Chen, Institute of Physics, Chinese Academy of Sciences
[21] Dr. Xin Lu, Institute of Physics, Chinese Academy of Sciences.
[22] Dr. Weimin Wang, Institute of Physics, Chinese Academy of Sciences

Australian Institute of Physics:

[1] Prof Geoffrey Bicknell, Australian National University, Professor of Astrophysics
[2] Em. Prof. Rod Boswell, Australian National University
[3] Prof. Christine Charles, Australian National University, Head Space Plasma, Power and Propulsion Division
[4] Prof. John Howard, Australian National University, Head, Plasma Research Laboratory

[5] Prof. Iver Cairns, University of Sydney
[6] Prof. Dmitry Fursa, Professor & ARC Future Fellow, Department of Imaging and Applied Physics,Curtin University
[7] Em. Prof. Robert Dewar, Australian National University
[8] A/Prof. B. Blackwell, Australian National University, Director, Australian Plasma Fusion Research Facility
[9] Honorary Associate Professor Brian James, University of Sydney
[10] A/Prof. Matthew Hole, Australian National University, ARC Future Fellow and Chair, Australian ITER Forum
[11] Dr Cormac Corr, Australian National University, ARC Future Fellow

The Korean Physical Society:
[1] Moohyun Cho, Professor, Dept of Advanced Nuclear Engineering (adjunct, Department of Physics), POSTECH
[2] Wonho Choe, Professor, Dept of Physics, Korea Advanced Institute of Science and Technology
[3] Taik Soo Hahm, Professor, Dept of Nuclear Engineering, Seoul National University
[4] Bong Guen HONG, Professor, Dept of Quantum System Engineering, Chonbuk National University
[5] Yong-Seok Hwang, Professor, Dept of Nuclear Engineering, Seoul National University
[6] Gon-Ho Kim, Professor, Dept of Nuclear Engineering, Seoul National University
[7] Myeun Kwon, Director-General, National Fusion Research Institute
[8] Chang Hee Nam, Director, Center for Relativistic Laser Science, Institute for Basic Science & Professor, Dept of Physics and Photon Science, Gwangju Institute of Science & Technology
[9] Dongsu Ryu, Professor, Dept of Astronomy & Space Science, Chungnam National University
[10] Prof. Patrick Diamond, Director, World Class Institute, National Fusion Research Institute/ Distinguished Professor, UCSD

Indian Physics Association:
[1] Prof. Abhijit Sen, S. Chandrasekar professor, Institute for Plasma Research. Gandhinagar
[2] Prof. G Ravindra Kumar, Tata Institute for Fundamental Research
[3] Prof. S. Mukherjee, Associate Dean, Institute for Plasma Research. Gandhinagar
[4] Prof. R. Ganesh, Institute for Plasma Research. Gandhinagar
[5] Prof. N. Chakrabarti, Saha Institute of Nuclear Physics, Kolkata
[6] Prof. M. Sita Janaki, Saha Institute of Nuclear Physics, Kolkata
[7] Prof. Manoranjan Khan, Jadavpur University, Kolkata
[8] Prof. K. Avinash, Delhi University, New Delhi
[9] Prof. Amita Das, Associate Dean, Institute for Plasma Research, Gandhinagar
[10] Prof. Ashish Ganguli, Indian Institute of Technology, New Delhi

The Physical Society located in Taipei:
[1] Prof. C.Z. Cheng, National Cheng Kung University
[2] Prof. Lin I, Academician, National Central University
[3] Prof. Kerchung Shaing, National Cheng Kung University
[4] Prof. Lin-Ni Hau, National Central University
[5] Prof. Y.R. Lin-Liu, Center for Math. and Theoretical Physics, Dep. of Physics, National Central University

Institute of Physics, Singapore:
[1] Prof Xu Shuyan, National Institute of Education, Nanyang Technological University, Singapore.
[2] A/Prof Rajdeep Singh Rawat, National Institute of Education, Nanyang Technological University, Singapore.
[3] A/Prof Lee Choon Keat Paul, National Institute of Education, Nanyang Technological University, Singapore.
[4] A/Prof Stuart Victor Springham, National Institute of Education, Nanyang Technological University, Singapore.

The Physical Society of Hong Kong:
[1] Prof. P.K. Chu, Chair Professor of Materials Engineering, Department of Physics and Materials Science, City University of Hong Kong

Malaysian Institute of Physics:
[1] Prof. Chiow San Wong, Plasma Technology Research Centre, Physics Department, University of Malaya.

Nepal Physical Society:
[1] Prof. Deepak P. Subedi, Associate Dean, School of Science, Katmandu University

Thai Institute of Physics:
[1] A/Prof. Thawatchai Onjun, Sirindhorn International Institute of Technology
[2] A/Prof. Rattachat Mongkolnavin, Head of Physics Department, Chulalongkorn University.

Physical Society of Philippines:
[1] Prof. Henry J. Ramos, Coordinator: Plasma Physics Laboratory, National Institute of Physics, College of Science, University of the Philippines.

[5] Web address

It does not exist, yet.

Appendix: Draft Rule of DPP

Article 1: Name

This Division of the Association of Asia Pacific Physical Society shall be called the Division of Plasma Physics. Its abbreviation shall be AAPPS-DPP.

Article 2: Objective

The objective of the Division shall be the advancement and dissemination of the knowledge, understanding and applications of plasmas of natural and laboratory origin.

Article 3: Membership

Members of the Division shall consist of Scientists wishing to have membership of this division subject to recommendations by two members (initially two core members). Member shall be responsible to inform one's name, affiliation, E-mail address to the secretary of the Division Secretary. Division Membership may be removed in case of one's request or loss of long-term communication or one's misconduct judged by the Executive Committee.

Article 4: Executive Committee

4.1 Governance

The Division shall be governed by an Executive Committee (hereafter called EXCO), which shall have general charge of the affairs of the Division.

4.2 Composition of EXCO

The EXCO shall consist of the Division Officers and the EXCO secretary.

4.3 EXCO meeting

EXCO shall have the EXCO meeting at least once a year, either by face or by other means including E-mail. At the APPC, EXCO shall have the face-to-face EXCO meeting.

4.4 Role of EXCO Secretary

The EXCO secretary shall arrange the EXCO meeting and minutes of the EXCO meeting.

Article 5: Division Officers

5.1 Officers of the Division

The Officers of the Division are the Chair, Vice Chairs, and Division Secretaries.

5.2 Terms of Division Officers

The term of Division Officers is 3 years with possible extensions if one's role as a Division Officer is changed.

5.3 Duties of the Chair

The Chair shall represent the Division and shall chair the EXCO meeting.

5.4 Vice Chairs

5.4.1 Number of Vice Chairs

There shall be at least five Vice Chairs, which will be responsible for the local arrangement of the next APPC session, and for the major subjects of this Division, i.e. 1) plasma physics, 2) plasma processing, 3) high intensity laser plasma science, 4) space, solar and astro plasmas. Number of the Vice Chair is subject to the progress of the Division.

5.4.2 Duties of the Vice Chairs

- Each Vice Chair in charge of each subject shall be responsible for matters in each major subject.
- The Vice Chair in charge of the next APPC shall be responsible for the local arrangement of the next APPC session and the communication to the local organizing committee.

5.5 Division Secretaries

These shall be at least two Division Secretaries, Chief Division Secretary and Division Secretary for General Affair. Division Secretaries shall be responsible for the membership management, information dissemination to the Division members and other matters as necessary.

Article 6: Standing Committees

1. **Honorary Advisory Committee**
   The Division Chair may form a honorary advisory committee which may consist of distinguished scientists in the fields and former division chairs related to this Division for advice to the Division management.
2. **Program Committee**
   The Program Committee shall be responsible for the plasma science program for the APPC meeting. Details are subject to future discussion.

Other articles are subject to future discussion.