

§20. Linkage of Scientific Research Fields on Plasma Physics

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Purpose Plasma science is defined as a fundamental science covering wide field including nano-process, nuclear fusion, space plasma, astrophysics and mathematical physics. In order to encourage plasma science itself and cross-field linkage with related scientific communities, it is necessary to organize a network of scientists in this field. For this purpose, we set two targets of this program. One is the policy establishment to promote collaboration beyond to society. Second is determination of action plan along the policy. The review of issues we are facing now is very important to achieve them. It is noted that the encouragement of network formation between scientists in universities and in research institutes of plasma physics field is one of the most important role of inter-university research institute.

Activities In this program, mainly committee of Region 2 (Division of Plasma Physics) in the Physical Society of Japan (JPS) have communicated with other societies related to plasma physics, and have been discussed on the policy and plan to promote plasma physics and nuclear fusion researches. In this fiscal year, Plasma Conference 2011 (PC2011) was held for the first time at Kanazawa city from 22nd November to 25th November. It was a international conference hosted by Region 2 of JPS, the Japan Society of Plasma Science and Nuclear Fusion Research and Division of Plasma Electronics for the Japan Society of Applied Physics. It was also co-hosted by many scientific societies related to plasma physics in Japan. So many researchers and students of 1090 participated in the PC2011 from Japan and other countries. The PC2011 successfully played an important role to supply a collaboration opportunity as the same scale with the annual meeting of Division of Plasma Physics in American Physical Society (DPP-APS). The success of this conference impressed Japaneses activities in this field (detailed summary is available in WEB site; http://div.jps.or.jp/r2/Plasma.conf2011_.html).

In order to survey opinions of the community on the purpose of the plasma conference, a questionnaire survey was carried out in the PC2011. While majority of the opinions is positive to PC2011 (see Fig. 1), some issues on the program design, conference site were revealed by the questionnaire data, which is available via web

site (http://div.jps.or.jp/r2/pdf2/2011/Questionnaire_plasma2011.pdf).

In September 2011, a meeting was held to select Award for the Encouragement of Young Physicists established by JPS. The policy to encouragement of distinguished young scientists was also discussed. In January 2012, another meeting was held to review PC2011 and to discuss the response to Association of Asia Pacific Physical Society (AAPPS). The operation and achievement of PC2011 were summarized in detailed, and the contribution of Region 2 of JPS to next Plasma Conference was discussed. Some other agendas were also discussed such as establishment of Division of Plasma Physics in AAPPS, submission extension of Best Student Presentation Award, OneVoice nomination for invited talk in annual meeting of DPP-APS2012 and so on. It is noted that this collaborative program supplied the very important activities to operate and to manage the Region 2 of JPS and to form a network between domestic societies related to plasma physics.

Summary It is very important mission of Region 2 of JPS to promote collaborative activities between scientists, to supply the opportunities for presentation and discussion of scientific results. The training and encouragement of young scientists and students are also important mission. It is necessary to discuss the management policy and action plan of the Region 2 of JPS. In fiscal year 2011, this program was operated as a collaborative research of National Institute for Fusion Science and the very important achievements such as summary of PC2011 were obtained, Further discussion and continuous effort are important to establish the future strategy of the Region 2 of JPS for inter-society collaboration.

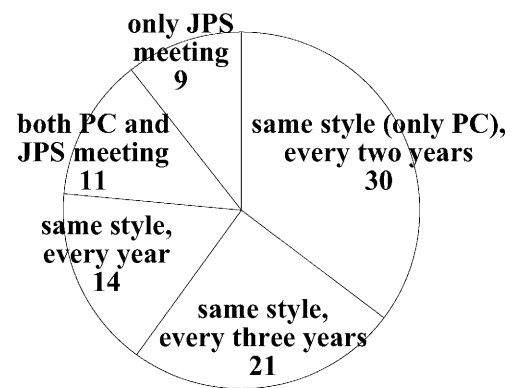


Fig. 1: Main opinions of JPS members ((30 + 21 + 14 + 11)/85 = 89%) are positive to Plasma conference. The "same style" corresponds to the no session in JPS sectional meeting, when Plasma Conference is held. In the sectional meeting of JPS held at September 2011, no Region 2 session was operated.