HAW09-2009-000705

Abstract for an Invited Paper for the HAW09 Meeting of the American Physical Society

Japan-US collaboration in Nuclear Physics

AKITO ARIMA, Japan Science Foundation, President

I will mention some highlights from the history of Japan-US collaboration in Nuclear Physics. Although I have memories of my personal strong ties with many friends in US, I shall rather skip them, and focus on three major collaborative works which have made significant impacts on the developments of nuclear physics. The first one is the INS (Institute for Nuclear Study, University of Tokyo) - Berkeley collaboration. As well known, this led to the beginning of Rare Isotope (RI) beam experiments as a global trend and consequently the discovery of neutron halo by Tanihata et al. This Berkeley experiment was inspired by the Japanese Numatron project, which has remained only a plan. The second one would be RHIC. The RHIC is probably one of the most successful products of the INS- Berkeley project at least conceptually. Nagamiya has led US efforts over years, which has produced QGP finally, while he has moved back to Japan before this moment. The third point I would like to mention is the RIKEN Brookhaven Center. This has been supported by T.D. Lee strongly, and has contributed to the developments of spin physics, QGP experiments, Lattice QCD calculation. It also encouraged US young theoreticians by the supportive program with US universities. I now see many active physicists who were under this program. Now we have JUSTIPEN (Japan-US Theory Institute of Physics with Exotic Nuclei) program by DOE through the University of Tennessee. Since the summer of 2007, over fifty physicists including experimentalists have come to Japan for theoretical studies, and many workshops have been organized. Thanks also to its Japanese matching fund EFES(International Research Network on Exotic Femto Systems), a large number of Japanese physicists visited US, having many workshops and collaborations. At the era of RIBF completion and FRIB initialization, the Japan-US collaboration becomes of more significance, and I hope that this workshop and the joint meeting this week will accelerate the developments of this frontier field of physics.