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MAJOR ACCELERATOR FACILITIES FOR NUCLEAR PHYSICS IN ASIA PACIFIC

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Asian Nuclear Physics Association (ANPhA) is the central organization representing nuclear physics in Asia Pacific. ANPhA is now preparing a list of accelerator facilities applicable for nuclear physics experiments in Asia Pacific. Among them, characteristics of world class "Major"accelerator facilities will briefly be summarized in my talk in Varenna Conference in comparing to similar facilities in Europe and North America.
Major facilities in Asia Pacific are mainly locating in China (Heavy Ion Research Facility in Lanzhou (HIRFL), Beijing Tandem Accelerator National Laboratory (BTANL)), India (K500 Superconducting Cyclotron at Variable Energy Cyclotron Centre (VECC)), Korea (RISP/RAON), and Japan (RIBF at Riken, J-PARC, and ELPH/LIPS). Most of them (HIRFL, BTANL, VECC, RISP/RAON and RIBF) are medium energy heavy-ion accelerator facilities and are competing to European and American Facilities such as SPIRAL2, HIE-ISOLDE, ARIEL-II and FRIB. In addition future extension plans of these Asian facilities are really aiming far beyond the wave front of the research of this field of nuclear physics. In this meaning, Asian research facilities are keeping world best positions in medium energy heavy-ion physics. Hadron physics facility in Asia (J-PARC) is also world leading facility in the world. ELPH/LIPS facilities can provide world competitive photon beams.
However, there are no high energy heavy-ion accelerators and colliders (such as ALICE in LHC, RHIC in USA, and NICA in Russia) in Asia Pacific region. In other word, we concentrated our research resources to medium energy heavy ion physics and chosen to promote high energy heavy-ion physics at abroad (outside Asia). This strategy seems successful at present. However we have to check our strategy of this field of Nuclear Physics for our future research collaborations in Asia Pacific. For example, too much concentration may be happening in medium energy heavy-ion accelerator facilities in Asia Pacific.

Primary author: Prof. TANAKA, Kazuhiro (KEK, High Energy Accelerator Research Organization)

Presenter: Prof. TANAKA, Kazuhiro (KEK, High Energy Accelerator Research Organization)

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