

Opening Address

Dear ladies and gentlemen,

It is a great pleasure for me to give an opening address for the YITP workshop ‘New Developments in Nuclear Self-Consistent Mean-Field Theories’. On behalf of the host institute and also as one of the domestic participants, I would like to welcome all the participants, especially the distinguished guests from abroad.

The Yukawa Institute for Theoretical Physics, former Research Institute for Fundamental Physics, was founded in 1953 to commemorate the historic event that late Hideki Yukawa was awarded the first Nobel prize for a Japanese citizen in 1949. Next year, 2006, we are going to hold a scientific symposium for the centennial celebration of the birth of Yukawa and Tomonaga, who were both Nobel Laureates and classmates in this University. Actually, Tomonaga was born in 1906 while Yukawa in 1907.

The Yukawa Institute is organized to serve collaborating research in all theoretical physics, namely, Theory of Elementary Particles, Nuclear Theory, Astrophysics and Cosmology, Condensed Matter Physics and Statistical Physics. As a regular activity, the institute hosts more than 20 meetings every year. This workshop is one of such regular meetings of this institute. For a long time, the regular meetings had been virtually domestic, partly because the severe bureaucratic regulations did not allow us to support the participants from abroad even with the stay expenses. However, the regulations were somewhat relaxed about five years ago, and then we have been encouraging the organizers to make the regular meetings internationalized. So we are very pleased to have many foreign participants here.

Among the meetings we host, there is a series of the international meetings, namely Yukawa International Seminars, called YKIS in short. The YKIS actually succeeded a series of the meetings called “Kyoto Summer Institute” or KSI, which started in 1978. The previous KSI/YKIS’s on nuclear physics includes; 1982, on Microscopic theories of nuclear collective motions with Prof. M. Yamamura being the chairman

1987, the first YKIS, mesons and quarks in nuclei with Prof. R. Tamagaki the chairman.

In 2001, Physics of unstable nuclei, Prof. H. Horiuchi the chairman.

We are now preparing a YKIS to be held 2006, entitled Frontiers in QCD—Exotic Hadrons and Hadronic Matter.

We have a plan to enhance such activities to hold international meetings further, so that we can run long-term programs lasting one to three months every year; such programs are actually being held in KITP, Santa Barbara, INT, Seattle and so on.

I think that one of the interesting points of nuclear physics lies in the fact that nuclei may be categorized as soft matter with various effective degrees of freedom; say the surface vibrations/deformation, 1S_0 , 3S_1 - 3D_1 pairings, the alpha clustering and so on. One may notice that they have the energy scales which are relatively difficult to separate. Such interesting and subtle points seem to become more essential in the

physics of unstable nuclei. Clearly the physics of nuclear structure constitutes one of the fronts of fundamental physics.

Now, stopping here to deliver my non-experts view on this field in front of the world-wide experts, I would like to finish this address by just expressing my hope that this work shop will be successful, in which, however, I am rather confident seeing the distinguished participants and the well-organized programm.
Thank you for your attention.

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