

Jun. 1, 2009

## Educational Program for High Energy Accelerator Science

Research on accelerator science, which covers a wide range of subjects from basic science to application science, has become important as the accelerator technology has been developed, and thus the education of young researchers in this field is strongly desired. In order to cultivate human resources capable of conducting research on the accelerator science and to establish a center of excellence, the Educational Program for High Energy Accelerator Science has been established to offer education and research on the accelerator science using advanced accelerators such as B Factory at the High Energy Accelerator Research Organization (KEK), J-PARC (Japan Proton Accelerator Research Complex) and synchrotron radiation light, as well as the development of next-generation accelerators. We seek to develop world-class researchers, who can find new issues for research and who will contribute to a deeper understanding of the universe by humanity, by forming a center of excellence for comprehensive accelerator science at Tsukuba.

We conduct this educational program in close cooperation with KEK. The master's program comprehensively covers fundamental subjects for the basic properties of science and engineering as well as lectures and seminars as special subjects at the University of Tsukuba by teachers from KEK participating in this program. In the doctoral program, graduate students participate in advanced research work using the world's leading high energy accelerator at KEK and carry out research for their doctoral theses as a visiting student.

Please contact the instruction section at the Graduate School of Pure and Applied Sciences or Prof. KIM Shinhong (Phone: 81-29-853-4270), who is a chief professor of physics in the Graduate School of Pure and Applied Sciences, if you have any question about this program.

A list of research fields of the faculty of the Educational Program for High Energy Accelerator Sciences is shown on the next page.

## List of research fields of faculty members

### < Physics Major >

Graduate students in this course study the accelerator science led by the faculty members listed below at the High Energy Accelerator Research Organization (KEK) under the Educational Program for High Energy Accelerator Science under the visiting student system. The doctoral theses advisers of the graduate students are not the faculty members at KEK but those at University of Tsukuba.

#### Particle physics, Nuclear physics, Astrophysics

B Factory: Prof. HABA Junji, Prof. SAKAI Yoshihide, Associate Professor ITO Ryosuke

J-PARC, Particle Physics: Associate Professor MARUYAMA Takasumi, Associate Professor NOMURA Tadashi, Associate Professor YOSHIMURA Koji

Nuclear Physics: Prof. MIYATAKE Hiroari, Associate Professor JEONG Sunchan

Development of measuring instruments: Prof. ARAI Yasuo, Associate Professor TANAKA Masanobu

Theory: Prof. OKADA Yasuhiro

#### Materials Structure Science

Synchrotron adiation light: Prof. MURAKAMI Youichi, Associate Professor NAKAO Hironori

Neutron, Muon: Prof. KAMIYAMA Takashi, Prof. OTOMO Toshiya

#### Accelerator

Development of advanced accelerators: Prof. URAKAWA Junji

### <Applied Physics Major>

Graduate students in this course study the accelerator science led by the faculty members listed below at the High Energy Accelerator Research Organization (KEK) under the Educational Program for High Energy Accelerator Science under the visiting student system. The doctoral theses advisers of the graduate students are not the faculty members at KEK but those at University of Tsukuba.

#### Materials Structure Science

Prof. IIDA Atsuo, Prof. MURAKAMI Yoichi, Associate Professor KOIDE Tsuneharu

### <Materials Science Major>

Graduate students in this course study the accelerator science led by the faculty members listed below at the High Energy Accelerator Research Organization (KEK) under the Educational Program for High Energy Accelerator Science under the visiting student system. The doctoral theses advisers of the graduate students are not the faculty members at KEK but those at University of Tsukuba.

#### Materials Structure Science

Prof. KADONO Ryosuke, Prof. NOMURA Masaharu, Associate Professor ITOH Shinichi