

International Summer School on Sciences ~Selected Topics in Frontiers of Physics~

Date: June 6 - 10 2016

Venue: Tokyo Institute of Technology

The International Education and Research Center of Science (IERCS) at Tokyo Institute of Technology (Tokyo Tech) will organize a school every summer on topics at the cutting edge of science. The first school in this series will be held from June 6 to June 10 2016 and its focus will be on a few areas at the forefront of contemporary physics. It is intended for advanced undergraduate students and graduate students. A total of 20 students; 10 each from Japan and abroad will be selected to participate in the school on the basis of their academic achievements and letters of recommendation. Students are encouraged to find their own travel support, as it might be possible to provide full or partial travel support to only some of the students from abroad depending on the availability of the Hiki fund at Tokyo Tech. Accommodation will be provided to all the participants of the school.

The school will consist of pedagogical lectures on cosmology, gravitational waves, quantum information, ultra cold atoms and topological aspects in condensed matter physics by faculty members from Tokyo Tech, whose research in these areas has been internationally acclaimed. The lectures will be followed by assignments and discussions. At the end of the school, the students will present summaries of the lectures in groups of five. This is aimed at deepening the understanding of the students of the subject matter presented in the lectures and fostering a spirit of cooperation in them. An important highlight of the school will be a special lecture by one of the physics Nobel Laureates of 2015, Professor Takaaki Kajita from the University of Tokyo. The participants will get an opportunity to interact with Professor Kajita after his lecture.

Some of the other unique features of the school are research presentations by graduate students of Tokyo Tech following which there will be tours of different labs. There will also be opportunities for the students to meet and discuss with professors of the physics department and learn about the research that is being performed at Tokyo Tech.

Tentative Schedule of the summer school:

	Monday(6)	Tuesday(7)	Wednesday(8)	Thursday(9)	Friday(10)
9:00~12:00	Registration	Lecture 1	Lecture 2	Lecture 3	Lecture 4
	Welcome address	Coffee break	Coffee break	Coffee break	Coffee break
	Introduction	Assignments & discussion 1	Assignments & discussion 2	Assignments & discussion 3	Assignments & discussion 4
12:00~14:00	Lunch	Lunch	Lunch	Lunch	Lunch
		Visiting professors' offices	Research presentation by students2	Intercultural study	Presentation preparation (Making a summary of the lectures in groups)
14:00~15:00	Research presentation by students1		Coffee break		
15:00~15:30	Coffee break	Coffee break	Coffee break		
15:30~17:00	Special lecture by Prof. Kajita	Lab tour 1	Lab tour 2		Presentation Closing address
18:00~	Welcome party				Farewell party

Applicants who wish to take part in the summer school should send their application form via e-mail to ryudou.jim@jim.titech.ac.jp by January 31, 2016. Notice of acceptance is scheduled to be sent to the applicant by February 29, 2016.