KMI Colloquium

The International Linear Collider (ILC) Project



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Abstract:

The International Linear Collider (ILC) is a linear electron-positron collider based on the technology of super-conducting radio-frequency. The ILC will be operated at an initial center of mass energy of 250 GeV as a Higgs Factory, where direct searches for new physics will also be performed at the energy frontier. The ILC can be upgraded later to higher energies beyond 1 TeV. The ILC is a large-scale scientific project proposed to be sited in Japan that requires global cooperation.

The International Committee for Future Accelerators (ICFA) advanced the ILC project to the next phase by establishing the ILC International Development Team (IDT) in August 2020, whose mandate is to make preparations to establish the ILC Pre-Laboratory (Pre-Lab). The Japan High Energy Physics Committee (HEPC) that represents the Japan Association of High Energy Physicists (JAHEP) established the ILC Steering Panel to support the transition to the Pre-Lab in October 2020.

This talk will present perspectives of physics at the ILC, the accelerator and detectors, as well as current activities in various sectors toward realization of the ILC project.