

# High power targets of ILC: Beam dump window and positron target

*Wednesday, 31 May 2017 14:35 (35 minutes)*

The ILC is an electron-positron collider whose energy is 500 GeV in center-of-mass. It has several kind of beam dumps and the maximum, the final beam-dump after IP, has to receive 14 MW of power. The conceptual design of this beam dump had been performed in 2012 by India/US/UK team and a water dump was proposed. It should have a window facing a vacuum of a beam line and a water as a dump core. In addition, the ILC has another target for positron generation. It receives several kW of deposition by photons from the 300m-long undulator. A study of the positron source is in progress with overseas collaborators. Recently the KEK ILC group formed a team to lead the successive beam-dump studies toward the green light for ILC. We are planning to establish designs in a few years. We would like to introduce our objectives for discussion.

**Presenter:** Dr TERUNUMA, Nobuhiro (KEK)

**Session Classification:** Session 2: HPT R&D Methods & Routes