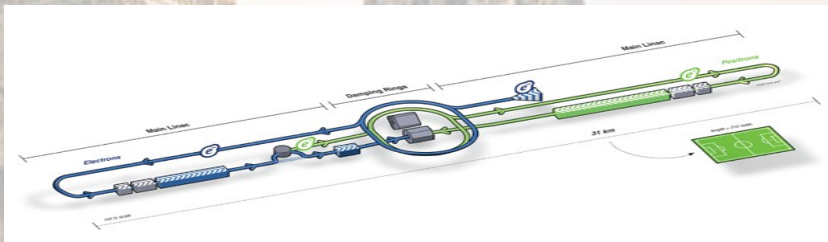
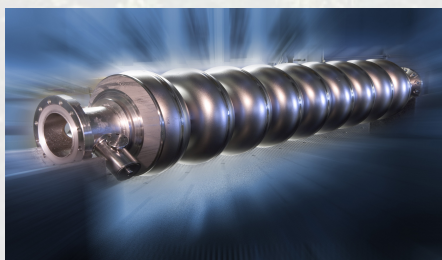


THE INTERNATIONAL LINEAR COLLIDER



At 31km in length, the **ILC** will be the largest and also the most complex accelerator ever built. Besides the main linacs, damping rings with a circumference of 6 km for electrons and positrons are needed to produce the high quality beam required at interaction point. Physicists from all over the world participate in its design, but it is not yet known where the machine will be built.



The ILC proposes 250 GeV (upgrade: 500 GeV) beams at a luminosity of over 10^{34} . That is ten times more energetic and corresponds to a hundred times more interactions per second than the SLC at SLAC. The main linac consists chiefly of superconducting acceleration structures with an acceleration gradient of 31MeV per metre. The beam delivery system prepares the beam to be focused by a final quadrupole magnet to a vertical

beam size of 5 nm. This ensures a high e^+e^- interaction rate since unlike circular colliders non-interacting electrons are lost. Every second 5 trains of 3000 bunches of electrons and positrons will be sent to interact in the middle of the detector.

The ILC includes study of Higgs, SUSY or any other new phenomena. Precision achieved at ILC will allow for model independent observation of Higgs and will study in detail the mass generation mechanism of the Standard Model. If SUSY exists in Nature, ILC can determine its symmetry breaking mechanism and precisely measure properties of accessible supersymmetrical particles

