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CHOOSING A BASELINE CONFIGURATION FOR THE ILC DAMPING RINGS

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The damping rings for the International Linear Collider must be capable of accepting large beams from the electron and positron sources, and producing highly damped beams meeting demanding stability specifications, at the machine repetition rate of 5 Hz. Between March and November 2005, a program of studies was undertaken by an international collaboration of 50 researchers, to compare a number of configuration options, including ring circumferences between 3 and 17 km. Here, we outline the studies and discuss the principle considerations in the choices of the baseline and alternative damping ring configurations.

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