Contribution ID: **47** Type: **not specified**

A case for a very large circular electron-positron collider

We explore the physics case for building a facility for high energy physics based around a very large circular tunnel which, in the first instance, would house a high-luminosity electron-positron collider with 300 GeV CMenergy.
This facility would be able to make a detailed study of the weak sector, in particular the measurement of the properties of light Higgs bosons in and beyond the standard model. At a later date, one could imagine upgrading the energy to study the top threshold and possibly the Higgs self couplingor installing an O(100) TeV pp collider in the same ring, giving access to possible physics beyond the standard model at a very high energy scale.

Primary authors: GLOVER, Edward (University of Durham (GB)); VAN DER BIJ, Jochum (Albert-Ludwigs-Universitaet Freiburg (DE))