

Reliability of a Future Circular Collider

P. Sollander

CERN CH-1211, Genève 23, Switzerland

Reliability and availability become key indicators for the performance of accelerators when integrated luminosity cannot be increased by higher peak luminosity. Grossly scaling downtime from equipment faults seen on CERN's Large Hadron Collider to the size of the giant Future Circular Collider (FCC) currently being studied suggests that it would do no physics at all! The FCC study has decided to assess if methods and tools successfully used to improve reliability and availability in large industrial and governmental projects could be applied also to accelerator projects. A Finnish team from the Tampere University of Technology who already has made reliability studies for oil rigs, nuclear waste management and military systems will help answer the question by modelling an existing accelerator and validating the model with physics data.