

FCC availability and integrated luminosity

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The achievable level of availability will be one of the main performance indicators for the next generation of particle accelerators. Studies are ongoing for the FCC to model future operation of the collider based on LHC experience. The software ELMAS is used for modelling system fault trees and simulate the achievable integrated luminosity production as a function of different operational modes and system failure rates. This contribution presents the first estimates of FCC availability and integrated luminosity, comparing two injector options (LHC and superconducting SPS). Recommendations are given on how to define availability 'budgets' for accelerator systems, based on the defined integrated luminosity goals.

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