

Online optimisations of lifetime and injection efficiency in the ESRF EBS storage ring

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Multi-objective optimisations are extensively used during the design phase of the modern storage rings, to optimise at the same time the simulated Touschek lifetime and injection efficiency. Online optimisations of either the measured lifetime or the measured injection efficiency have been also extensively used at the ESRF and in several other accelerators. Online multi-objective optimisations are technically more complicated, but can also be performed. Different online optimisations performed at the ESRF EBS storage ring using different algorithms will be presented.

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