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Design, optimisation and operation of beam intercepting devices for CERN's fixed-target physics

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CERN is presently operating various particle producing targets and the associated infrastructure in its accelerator complex, including a neutron spallation source, an antiproton production targets, a neutrino target and various general-purpose primary targets for test beams and experiments. At the same time, devices of different types and characterized by high power density as well as high instantaneous power are under consideration for future CERN projects.
In this presentation the physics optimisation and engineering designs of these devices will be reviewed, highlighting the methods and procedures employed to guarantee a high level of reliability. The operation and the design of the respective target areas will also be addressed, providing perspectives for future potential installations.

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