CAS course on "Normal- and Superconducting Magnets", 19 November - 02 December 2023, St. Pölten, Austria



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Insertion devices

Friday 1 December 2023 14:30 (1 hour)

Insertion devices are installed in storage rings and linac-driven light sources to produce radiation or to enable an interaction of the particle beam with the radiation field. The intended use case for the generated radiation drives the design requirements for the insertion device. This lecture is intended to give an idea of how undulator radiation and FEL gain depend on the properties of the insertion devices and what consequences this has for the design of these magnets. It gives an overview of the technological choices for insertion devices and deals with the particular challenges for their construction and quality assurance.

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