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## LANSCCE electromagnetic chopper and beam dynamic simulation

*Thursday, 23 May 2024 16:00 (2 hours)*

Electromagnetic choppers are a critical subsystem that slices particles at specific intervals and precisely directs them to a target or experiment. This simulation study was carried out to determine the correct operating parameters of the Electromagnetic Chopper, optimize it and increase its overall performance. At the same time, beam dynamics simulations aim to model in detail the movement of particles within the accelerator system. These simulations have been used as a comprehensive tool to evaluate and improve the operation of the Electromagnetic Chopper. The thesis examines the effects of these simulations on the Electromagnetic Chopper at LANSCE and their contribution to the performance of the system. Electromagnetic chopper and beam dynamics simulations are critical to ensuring LANSCE's accelerator systems operate more efficiently, optimizing targeting times, and better understanding the interactions of particles on the target.

### Footnotes

### Funding Agency

### Paper preparation format

LaTeX

### Region represented

Europe

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