



Contribution ID: 550 Contribution code: WEPM088

Type: **Poster Presentation**

## Impedance optimization for the HALF storage ring

*Wednesday 4 June 2025 16:00 (2 hours)*

Over the past year, we have conducted comprehensive impedance optimization calculations for the vacuum components designed for the Hefei Advanced Light Facility (HALF) storage ring. Our calculations indicate that specific components, which have a cavity-like or tapered structure, possibly exhibit a relatively strong trapped-mode impedance in the longitudinal or transverse directions. In order to suppress these trapped modes, we have proposed structural optimization recommendations, which were ultimately adopted for HALF. In this paper, we will present a detailed account of these suggestions and the impedance outcomes before and after the optimization.

### Footnotes

### Paper preparation format

LaTeX

### Region represented

Asia

### Funding Agency

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**Session Classification:** Wednesday Poster Session

**Track Classification:** MC5: Beam Dynamics and EM Fields: MC5.D04 Beam Coupling Impedance Theory, Simulations, Measurements, Code Development