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## Loss simulations on shielding foil slit errors

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The worldwide first in-vacuum elliptical undulator, IVUE32, is being developed at Helmholtz-Zentrum Berlin. The 2.5 m long device with a period length of 3.2 cm and a minimum gap of about 7 mm is to be installed in the BESSY II storage ring. The device follows the Apple-II design and features four magnet rows. Both the two bottom and two top rows can be shifted longitudinally. This shift needs to be permitted by the shielding foils that cover the permanent magnets. The proposed solution calls for a longitudinal slit in the top and bottom shielding foils, which gets folded into the gap between the top and bottom magnet rows respectively. The manufacturer states that the folding process can introduce a small sinusoidal error to the slit width. We will present wakefield simulation studies that investigate the effect of different possible foil gap variations.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

**Primary author:** VOLZ, Paul (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)

**Co-author:** MESECK, Atoosa (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)

**Presenters:** BAHRDT, Johannes (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH); VOLZ, Paul (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH); GRIMMER, Stefan (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)

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