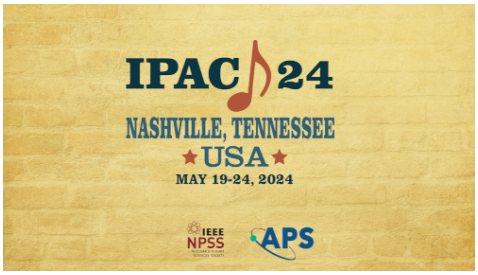

Contribution ID: **937** Contribution code: **TUCN1** Type: **Contributed Oral Presentation**

Vertical beam halo characterisation at the ESRF EBS for operation with reduced in vacuum undulator gap

Tuesday, 21 May 2024 15:00 (20 minutes)

The vertical beam halo is the main limitation for very low gap operation of in-vacuum undulators at the ESRF EBS. The vertical halo is due to Touschek electrons with large energy deviation crossing some betatron resonances. The crossing of the resonances can transfer horizontal momentum to vertical momentum. The beam halo has been characterized and measured and different low halo optics have been studied and tested to allow the operation of the machine with lower in-vacuum undulator gaps.

Footnotes

Funding Agency

Paper preparation format

LaTeX

Region represented

Europe

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Session Classification: TUCN: Photon Sources and Electron Accelerators (Contributed)

Track Classification: MC2: Photon Sources and Electron Accelerators: MC2.A05 Synchrotron Radiation Facilities