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## Off-energy operation of a HMBA lattice

*Monday, 8 May 2023 16:30 (2 hours)*

The ESRF-EBS is the first 4th generation source making use of the Hybrid Multi-Bend Achromat (HMBA) lattice cell, reaching an equilibrium horizontal emittance of 140 pm.rad in user mode (insertion devices (ID) gaps open). An off-energy operation was proposed to further reduce the equilibrium emittance by about 20 pm.rad. A first proposal rematched the HMBA optics at an energy deviation of -1% and evaluated its dynamic aperture in the machine. Further experiments were dedicated to this study at the ESRF-EBS, including injection efficiency and lifetime optimisation.

### Funding Agency

### Footnotes

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

Yes

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