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## Exploring FCC-ee optics designs with combined function magnets

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The FCC-ee project takes a step forward towards the discovery of new physical phenomena beyond the frontier of the standard model, by aiming at unprecedented center of mass energies and luminosities in a double-ring lepton collider. In order to explore potential improvements to the current lattice design, this paper looks at the use of combined function magnets within the short straight sections of the arc cells. The use of High Temperature Superconductors (HTS) with an operating temperature of 12 K and maximum field of 18.2 T for the combined function magnets allows increasing the bending radius and decreasing the synchrotron radiation. A first design is presented with comparisons to the current baseline.

### Funding Agency

### Footnotes

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

Yes

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