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## Resonant matching section for CEBAF energy upgrade

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The ongoing study Thomas Jefferson National Accelerator Facility (Jefferson Lab) energy upgrade to 22 GeV involves the addition of two new Arcs based on Fixed-Field Alternating Gradient (FFA) permanent magnet technology. The six highest energy passes will share the FFA Arc and will be connected to the rest of the machine through a transition section that will match the Twiss functions of all six passes to that of the linac entrance. With the high number of constraints and the limited space available, we are investigating a parametric resonance technique to match the Twiss parameters by using the Panofsky corrector magnets placed throughout the FFA arcs. This paper presents the current progress of that transition section.

### Footnotes

### Funding Agency

### Paper preparation format

LaTeX

### Region represented

North America

**Primary author:** GAMAGE, Bamunuvita (Thomas Jefferson National Accelerator Facility)

**Co-authors:** BOGACZ, Alex (Thomas Jefferson National Accelerator Facility); COXE, Alexander (Jefferson Lab); SERGI, Andrei (Thomas Jefferson National Accelerator Facility); TRBOJEVIC, Dejan (Brookhaven National Laboratory); TURNER, Dennis (Thomas Jefferson National Accelerator Facility); KHAN, Donish (Thomas Jefferson National Accelerator Facility); MEOT, Francois (Brookhaven National Laboratory); KRAFFT, Geoffrey (Thomas Jefferson National Accelerator Facility); HOFFSTAETTER, Georg (Cornell University (CLASSE)); BERG, J. (Brookhaven National Laboratory); PRICE, Katheryne (Thomas Jefferson National Accelerator Facility); DEITRICK, Kirsten (Thomas Jefferson National Accelerator Facility); KAZIMI, Reza (Thomas Jefferson National Accelerator Facility); BODENSTEIN, Ryan (Thomas Jefferson National Accelerator Facility); BROOKS, Stephen (Brookhaven National Laboratory); Dr SATOGATA, Todd (Thomas Jefferson National Accelerator Facility); MOROZOV, Vasilii (Oak Ridge National Laboratory); ROBLIN, Yves (Thomas Jefferson National Accelerator Facility)

**Presenter:** GAMAGE, Bamunuvita (Thomas Jefferson National Accelerator Facility)

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