

# Electron Column Simulation Update

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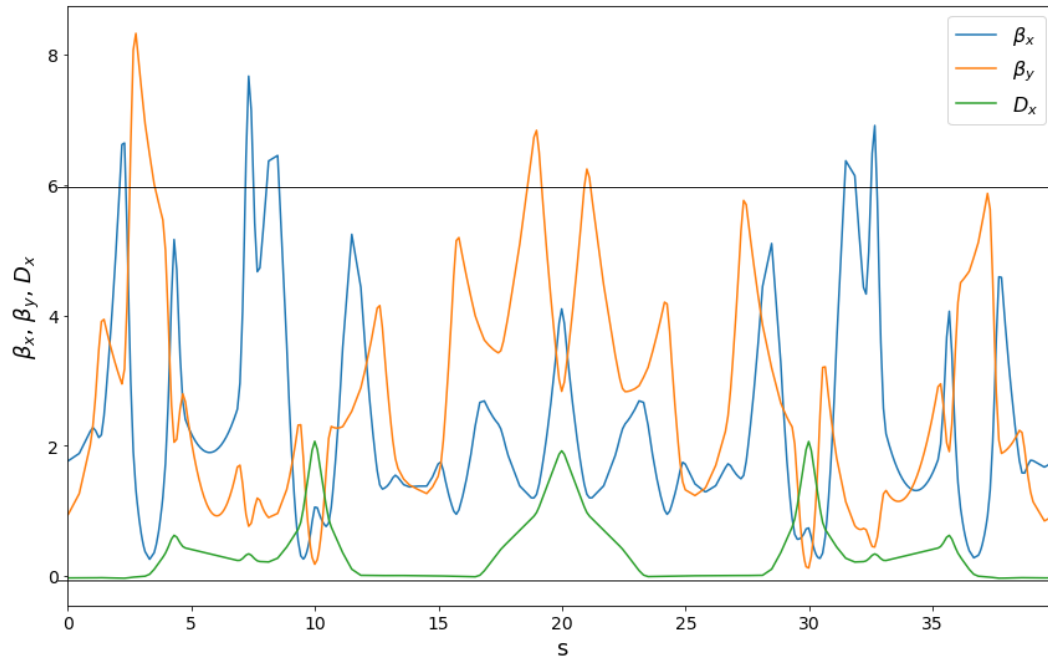
Electron Column Modeling Meeting  
August 22, 2018

# Status

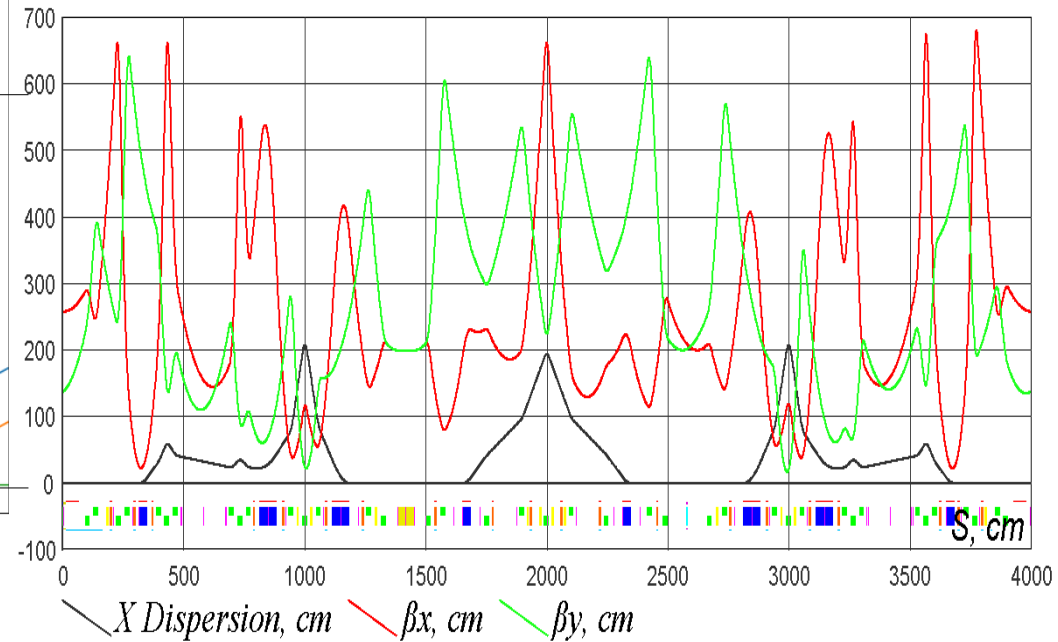
- IOTA lattice v8.3 for the Electron Lens has successfully been converted and read into Synergia
- A KV beam with 10,240 particles has been injected and tracked to the beginning of the Electron Column (143<sup>rd</sup> element in the lattice)

# Lattice Functions

Lattice functions for IOTA 8-3 Electron Lens lattice

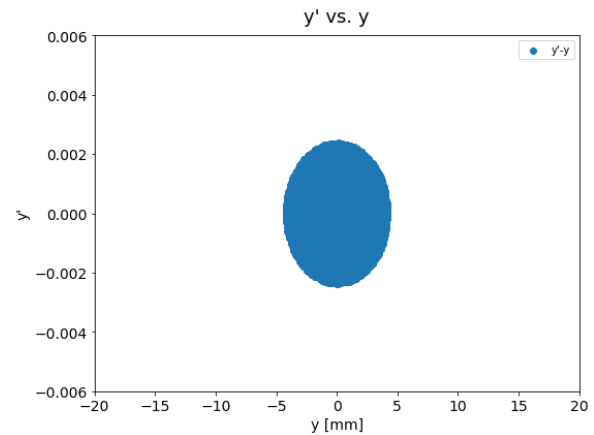
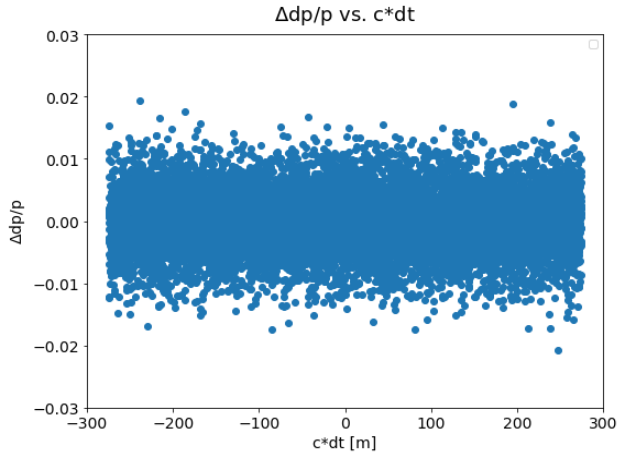
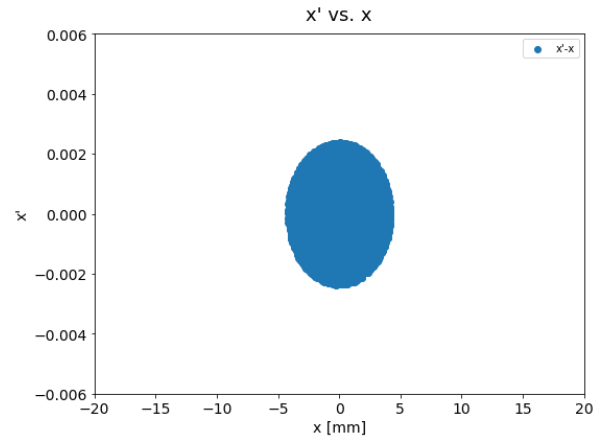
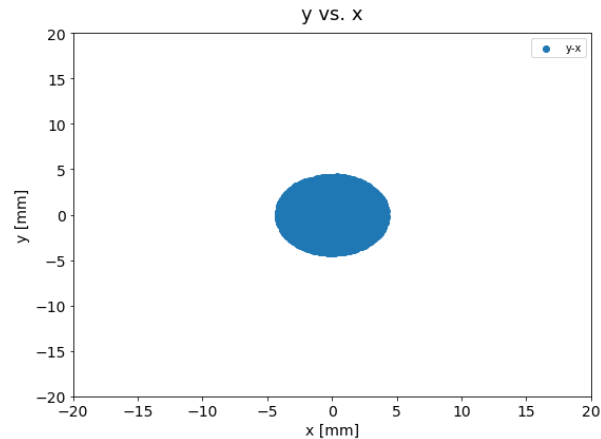


A. Romanov, FAST/IOTA Collaboration Meeting, 6/6/17



# Input Distribution

Max. x, y	4.2 mm
RMS x, y	2.1 mm
RMS emit. x, y	2.5 mm-mrad
Total emit. x, y	10.0, 9.86 mm-mrad



# Distribution at Electron Column

Max. x, y	-19.6, -7.44 mm
RMS x, y	2.41, 2.94 mm
RMS emit. x, y	3.60, 2.75 mm-mrad
Total emit. x, y	10.6, 13.8 mm-mrad

