

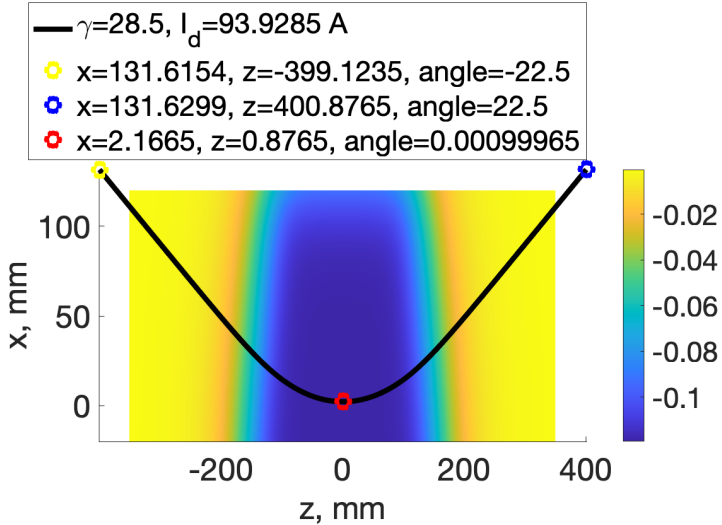
CeC Physics

Jun Ma

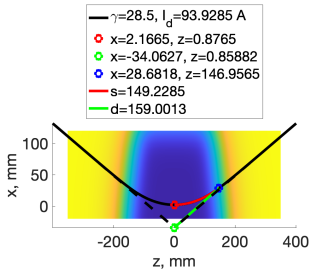
Collider-Accelerator Department
Brookhaven National Laboratory

7/2/2021

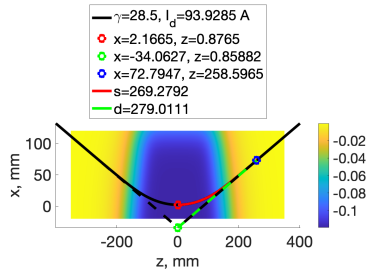
- Center of 2nd dipole to Sol 1: 0.959 m
- Sol 1 to Sol 2: 2.2 m
- Previous simulation uses 3 m modulator, which starts 0.159 m after center of 2nd dipole.
- Current simulation uses 2.88 m modulator, which starts 0.279 m after center of 2nd dipole.
- Initial condition: normalized KV emittance $7\text{e-}6$ (RMS $1.75\text{e-}6$), β 6 m, α 0.4.



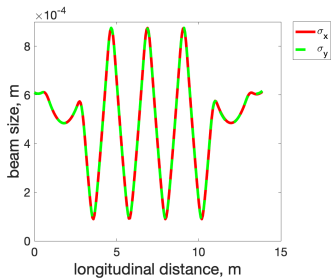
(a)



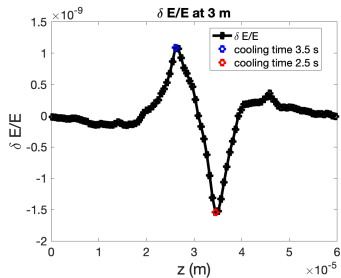
(a)



(b)

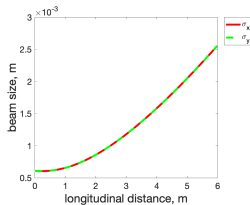


(a) Beam size

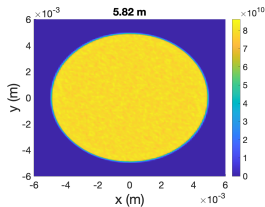


(b) Cooling force

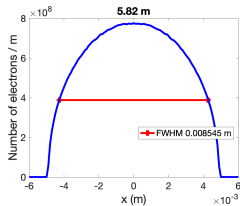
Common Sol 1 at 0 A



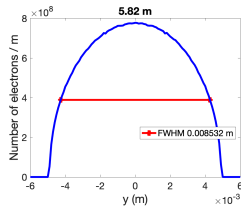
(a) Beam size



(b) x-y plot

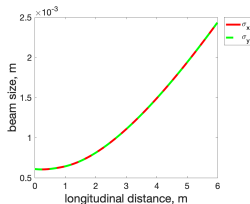


(c) x plot

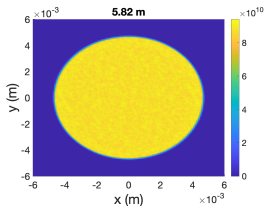


(d) y plot

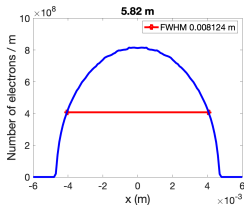
Common Sol 1 at 20 A



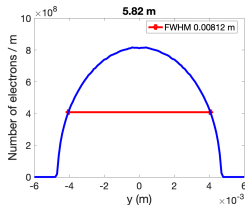
(a) Beam size



(b) x-y plot

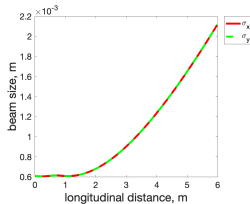


(c) x plot

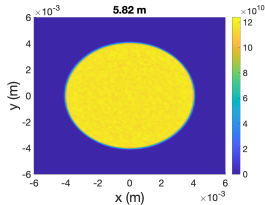


(d) y plot

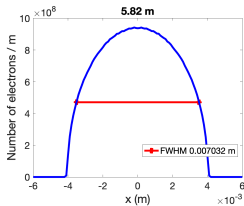
Common Sol 1 at 40 A



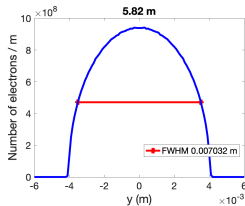
(a) Beam size



(b) x-y plot

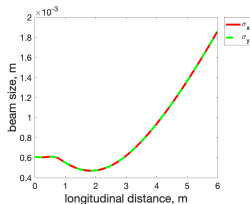


(c) x plot

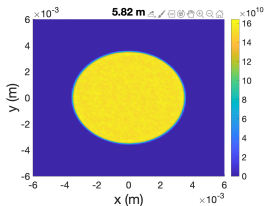


(d) y plot

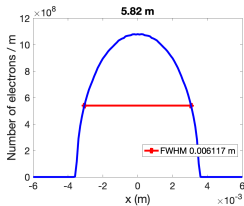
Common Sol 1 at 60 A



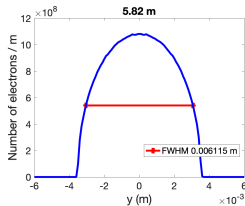
(a) Beam size



(b) x-y plot

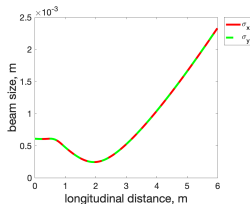


(c) x plot

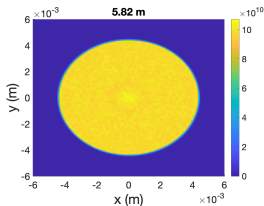


(d) y plot

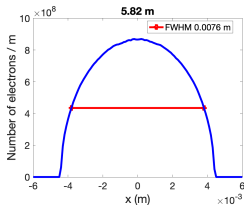
Common Sol 1 at 80 A



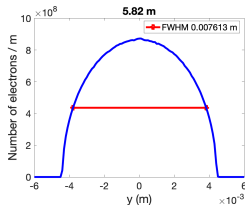
(a) Beam size



(b) x-y plot



(c) x plot



(d) y plot