Simulations of Bent Solenoid Emittance Exchange

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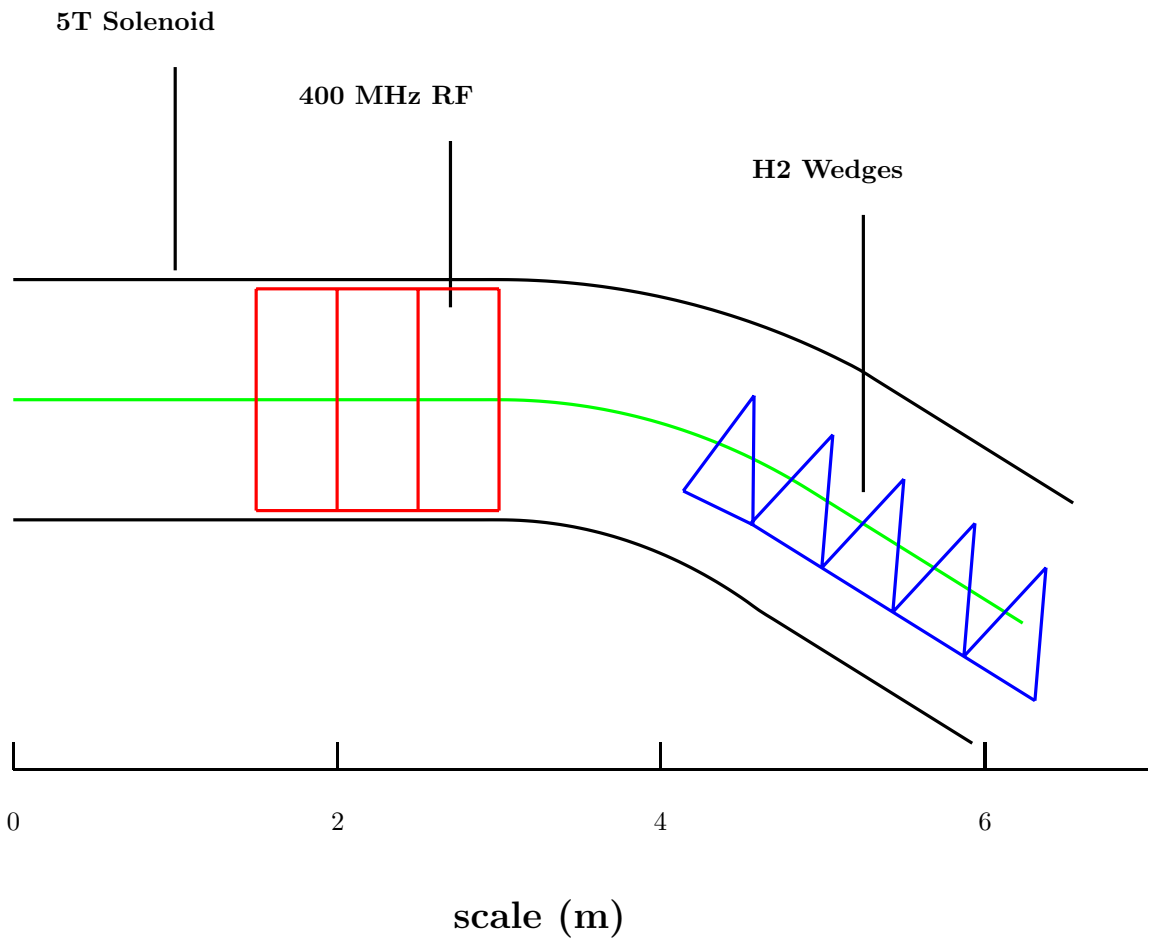
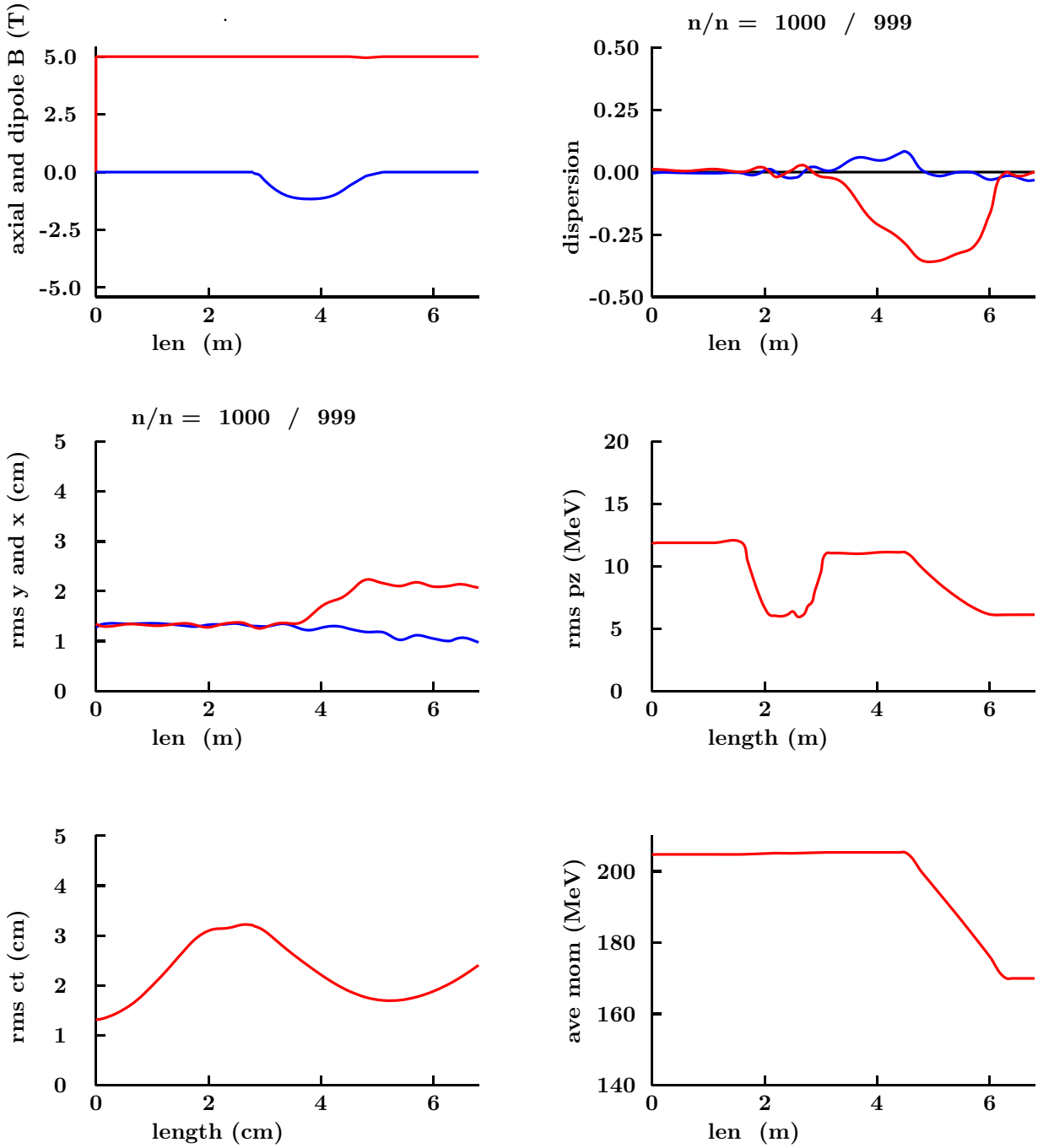


Tracking in ICOOL



Summary

- **Longitudinal emittance** $\times$ 0.65
- **Transverse xy emittance** $\times$ 1.36
- **6D emittance** $\times$ 0.88
- **expected from linear theory:** $\times$ .68
- **6D dilution:**$\times$ 1.3
- **Transmission** **100 %**

Conclusions

- **6D Emittance exchange is demonstrated**
- **all non linear effects are included**
- **Matching such exchange into a linear channel difficult**
- **Combined cooling and exchange prefered**