

Progress Update

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WP6 Meeting

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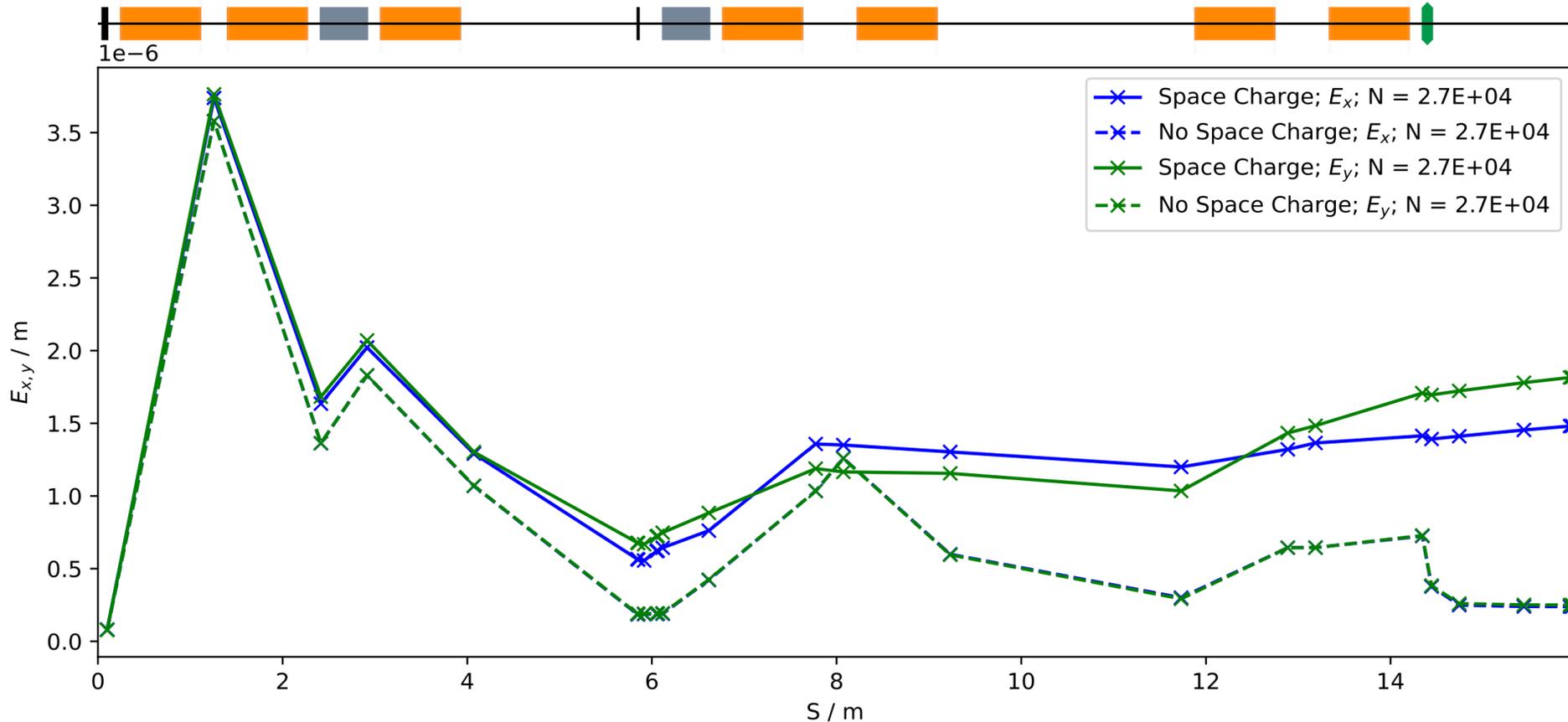


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- Continued assembling & tabulating data for report
- No progress on optimisation
- Particle coordinate conversion bug
 - Effect: artificial emittance increase without space charge
 - Cause: Momentum co-ords normalised to per-particle momentum – should be nominal momentum
 - Impact: minor, but beam transport simulations need rerunning.
- Re-run beams from the beginning (5 cm after the target)
 - Have beams at exit of target housing + 2.87mm nozzle cut
 - Capture section optimisation ongoing

Emittance Growth



- Factor ~4 difference in emittance after the matching section (3cm beam configuration)
- Literature: emittance not conserved in solenoids
 - Still reading.

- Done:
 - Fixed emittance growth issue – conversion bug
- Ongoing:
 - Write-up for 6 month report
 - Re-tabulate beam data with new beam
 - Re-run optimisation routines with new beam
 - Update models of alternative baseline design (v5.5)
- Todo:
 - Re-run collimation settings study
 - Determine nominal octupole settings
 - Quads only model (v6.0)
 - Develop OPAL model of FFA – need JP input.