

Beam Optics Update Mar 5

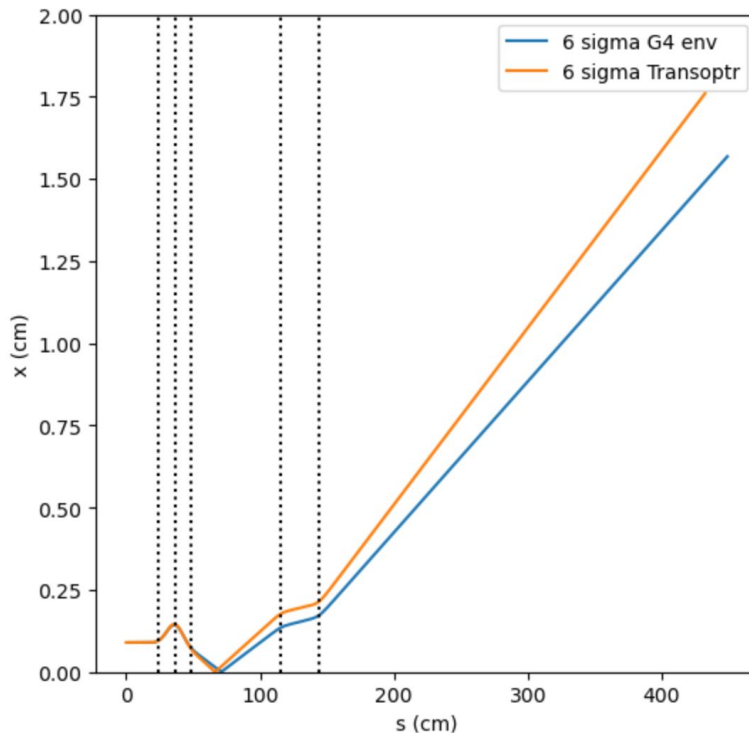
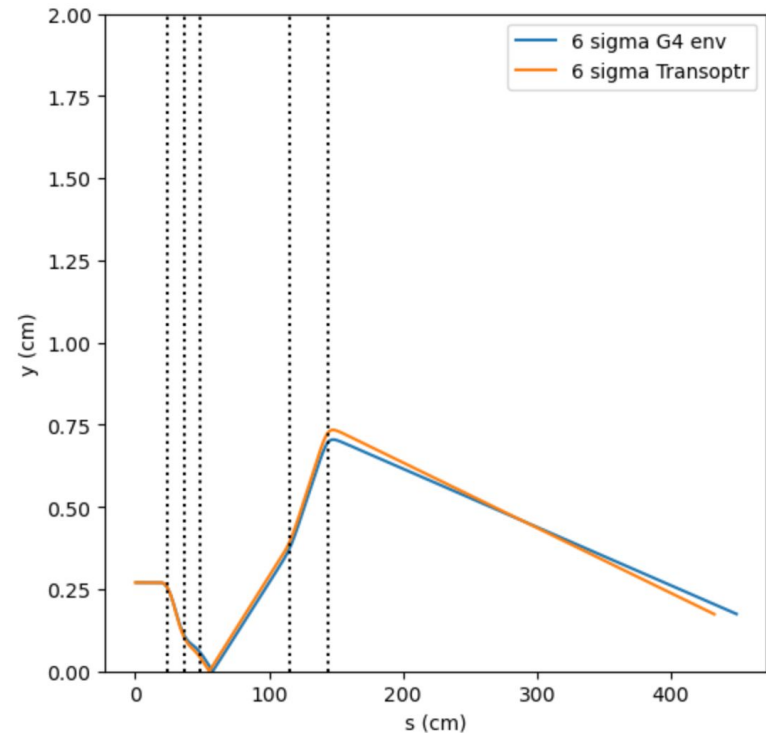
Laura

Where we were at...

- Aveen and I were able to get agreement with no magnets with the target in
- Adding magnet back in gives disagreement due to G4 losses
- Met last week to iron out some next steps
 - Test #1: Test agreement with target out but with all magnets
 - Should give no losses in G4 so should agree
 - Test #2: Remove all particles that fall outside of any magnet in G4, calculate the RMS, pass back to Transoptr, and see if those envelopes agree

Test #1 Progress

- Initial run still has some disagreement



Am fiddling with some G4 parameters to see if step size will make a difference, plus we're double checking things again

Test #2

- High stats run so takes a bit of time to run everything required
- Have new scattering now though, and new beam envelope from Aveen, will run this check later today
- Based on Test #1, not optimistic we will have agreement, but at least machinery is in place now