



Half Flip 6D Lattice

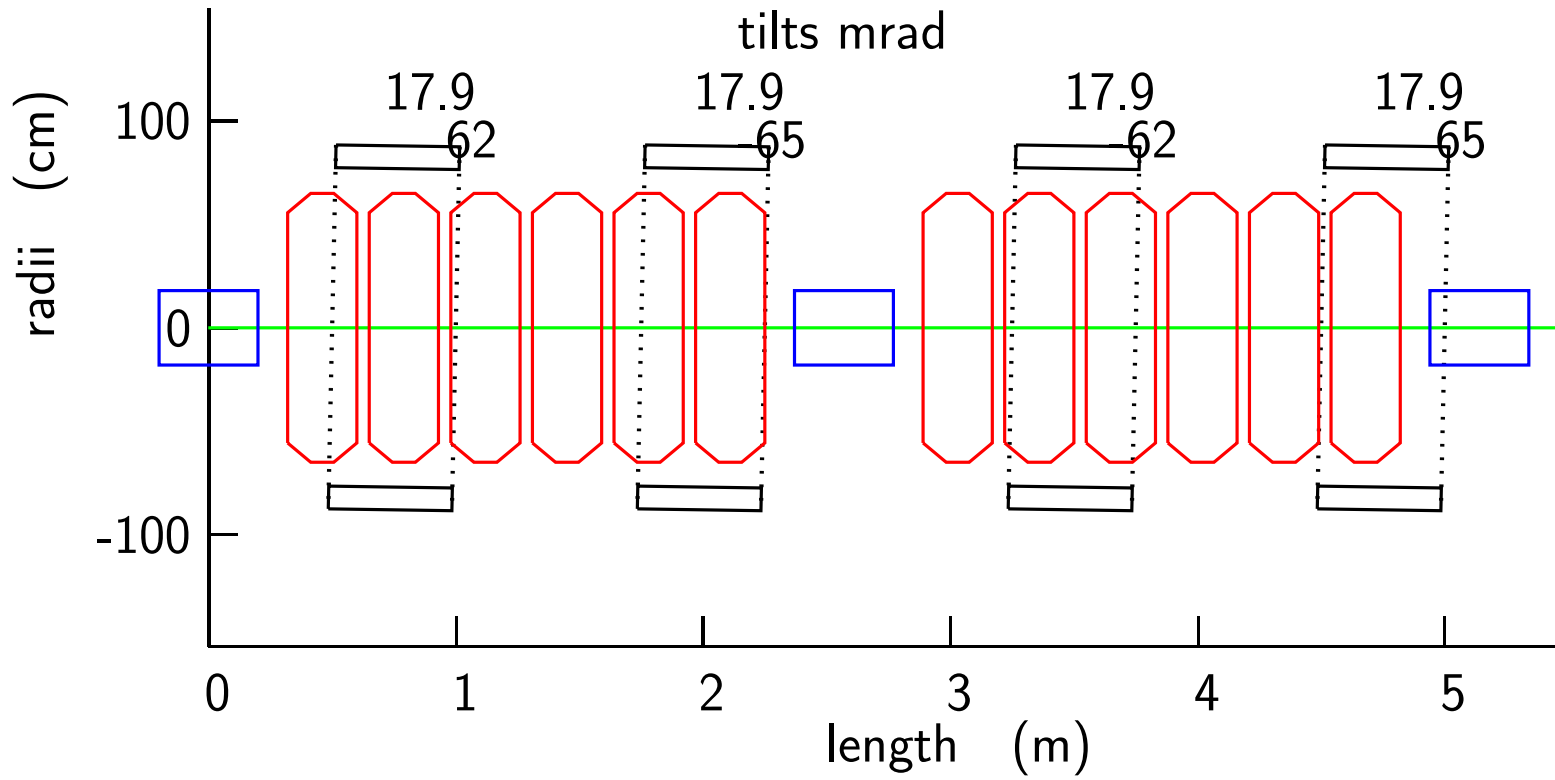
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(BNL)

Thursday

5/16/13

- Introduction
- Conclusion

One Cell

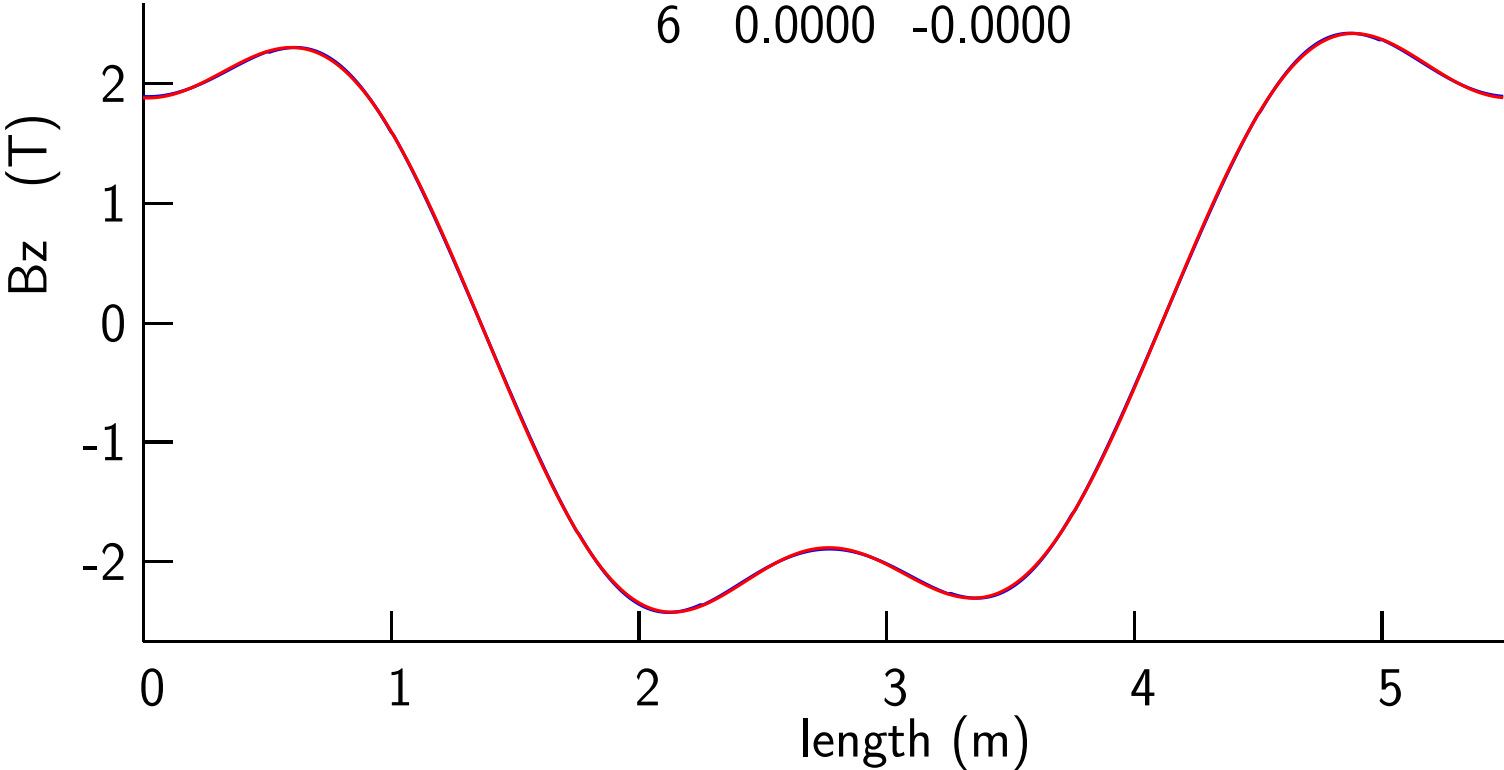


No wedges

Fields & Fourier Components

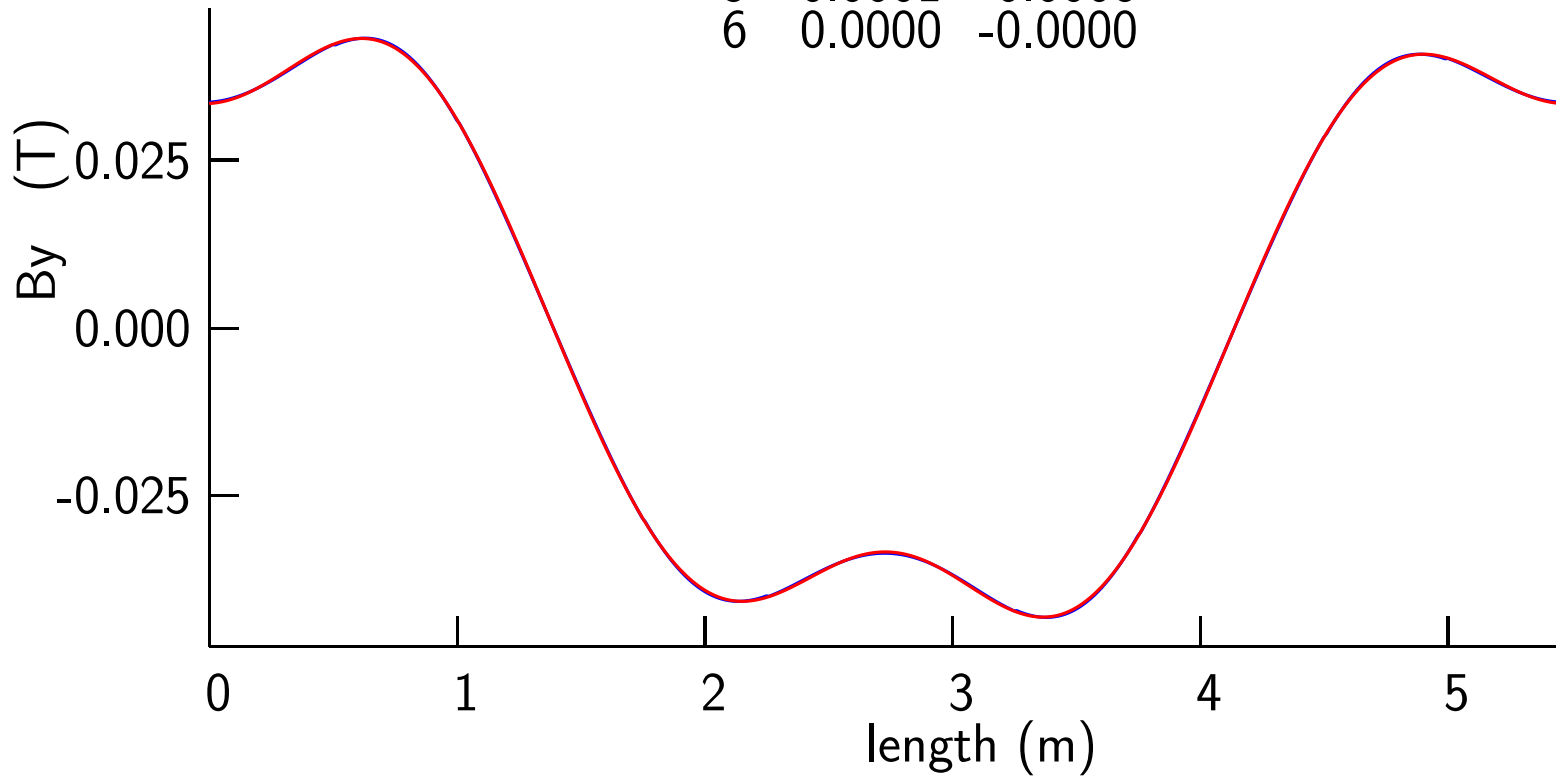
max error 0.012

| | | |
|---|---------|---------|
| 0 | 0.0000 | 0.0000 |
| 1 | -0.0757 | 2.5879 |
| 2 | -0.0000 | 0.0000 |
| 3 | -0.0107 | -0.6618 |
| 4 | -0.0000 | -0.0000 |
| 5 | 0.0027 | -0.0470 |
| 6 | 0.0000 | -0.0000 |



max error 0.000

| | | |
|---|---------|---------|
| 0 | 0.0000 | 0.0000 |
| 1 | 0.0015 | 0.0462 |
| 2 | -0.0000 | 0.0000 |
| 3 | 0.0002 | -0.0118 |
| 4 | -0.0000 | -0.0000 |
| 5 | -0.0001 | -0.0008 |
| 6 | 0.0000 | -0.0000 |



acceptance ngood 46

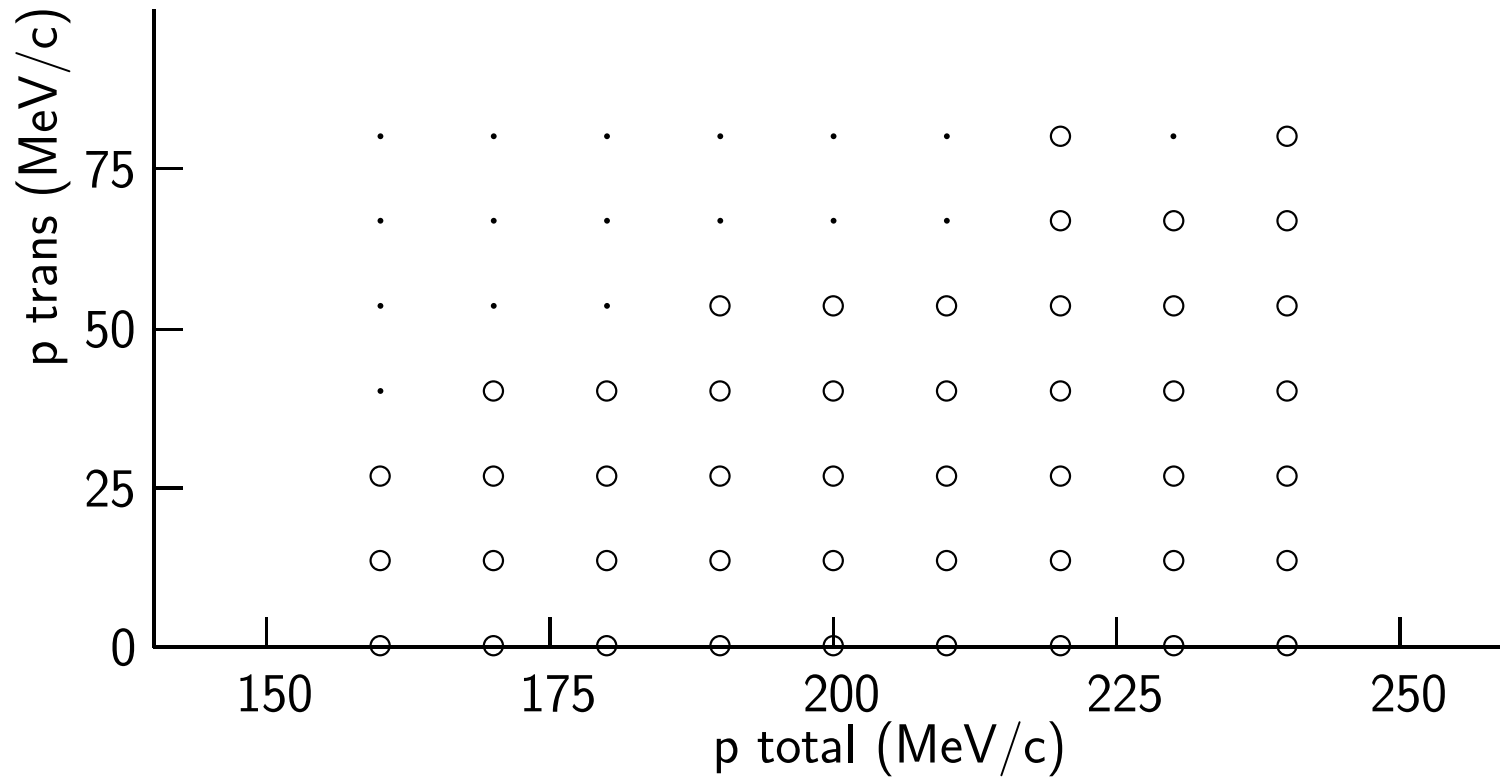


Fig. 1

Disp -12.00 cm

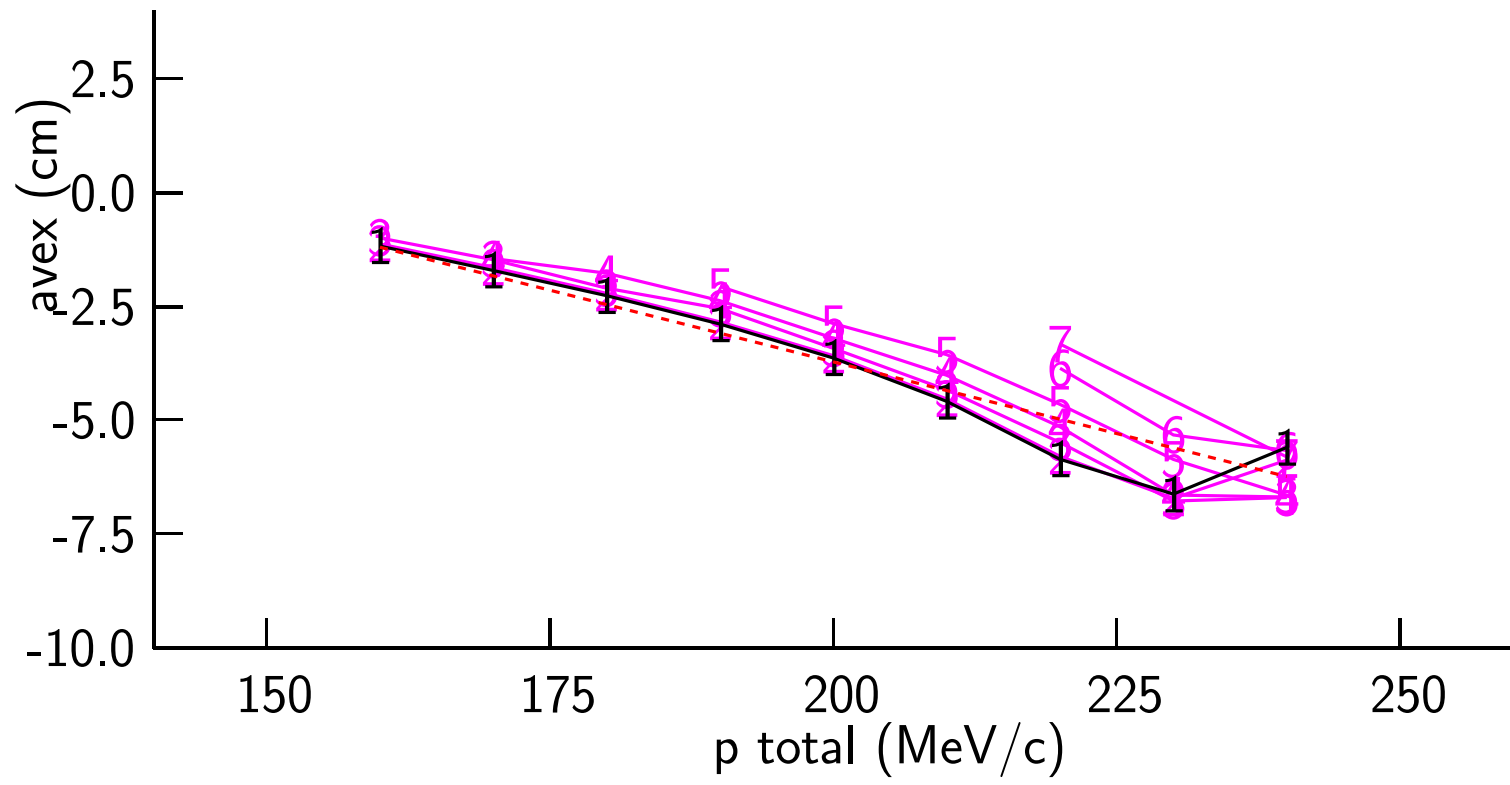


Fig. 2

Disp = 0.00 cm

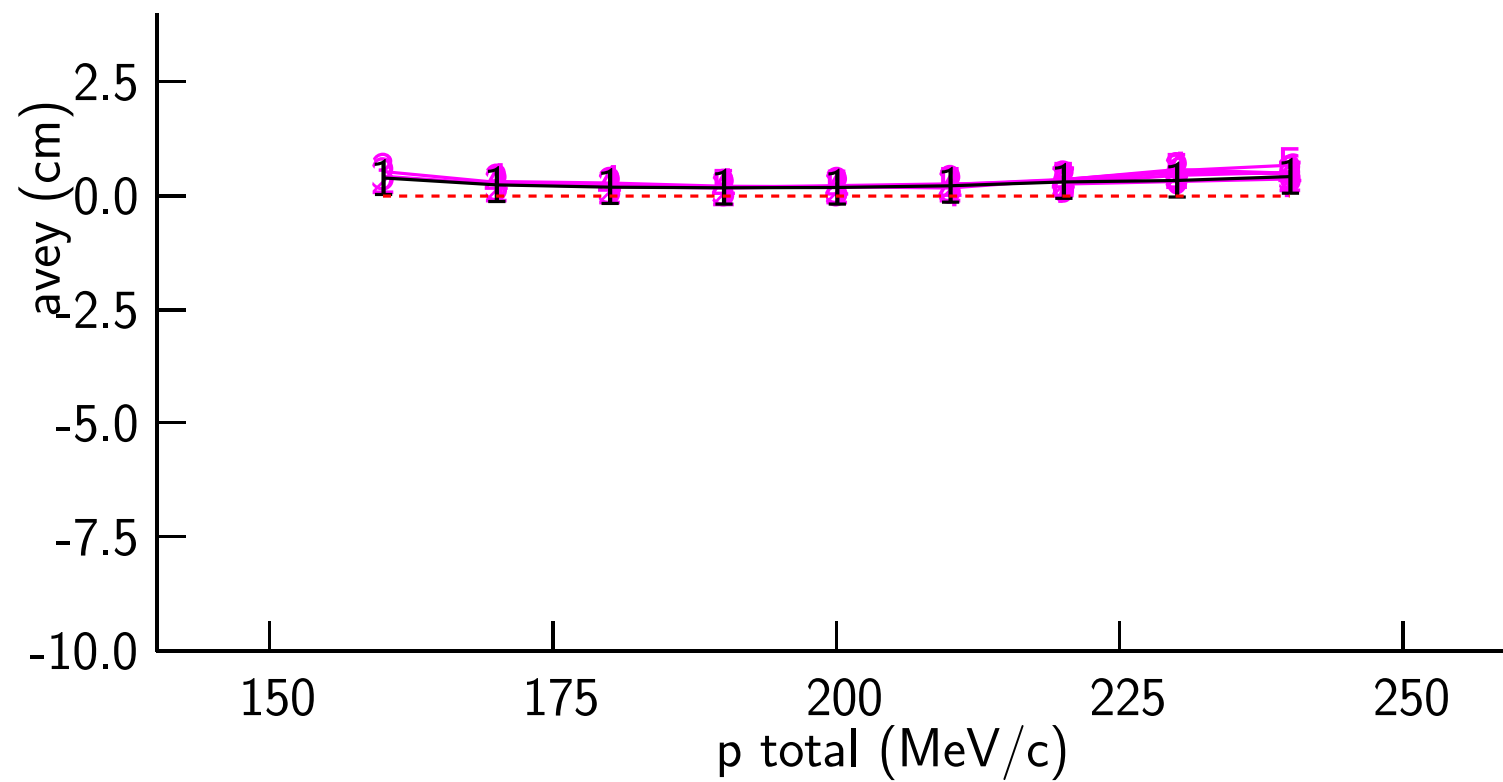


Fig. 3

Disp = 0.0 mrad

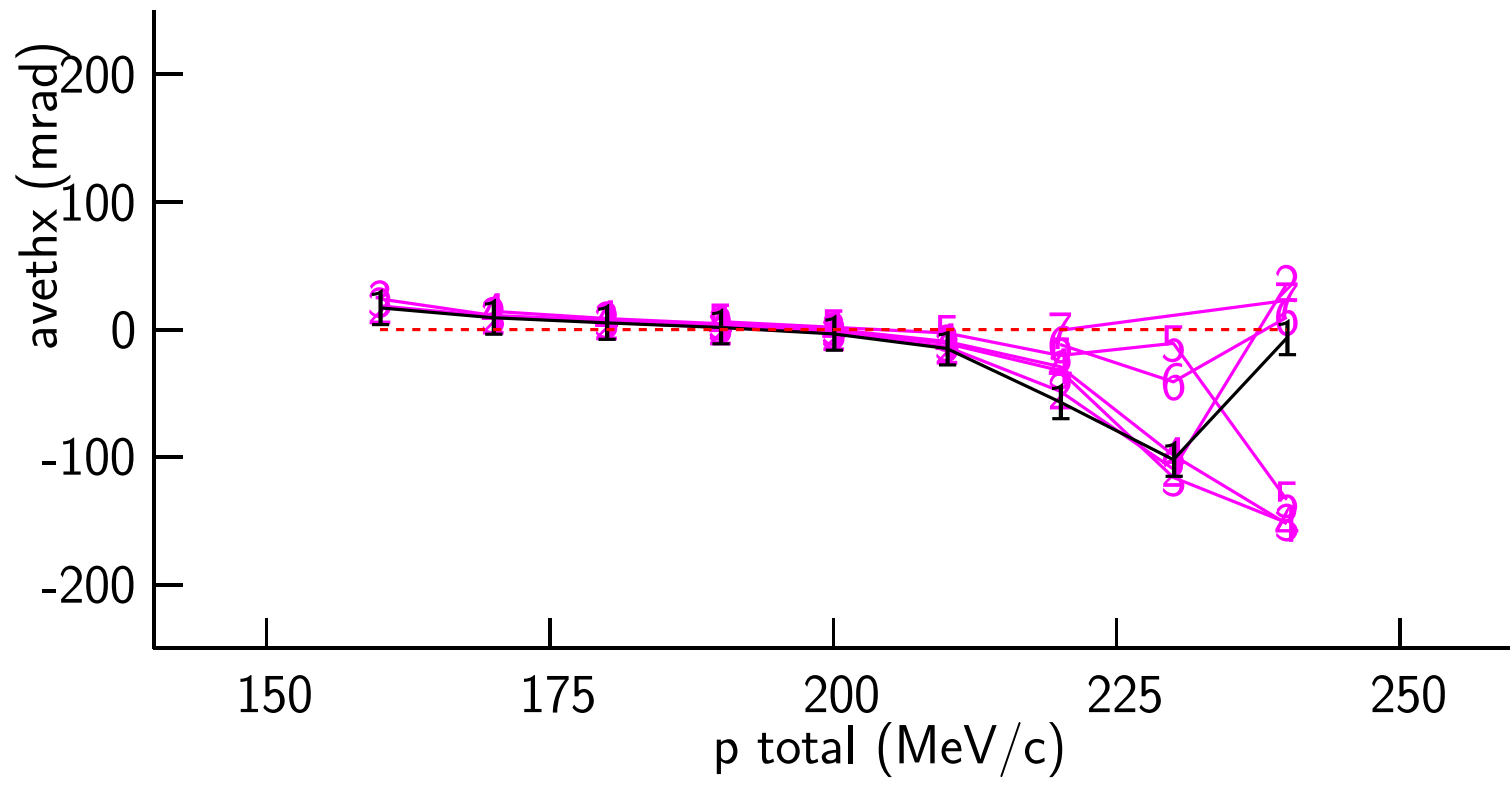
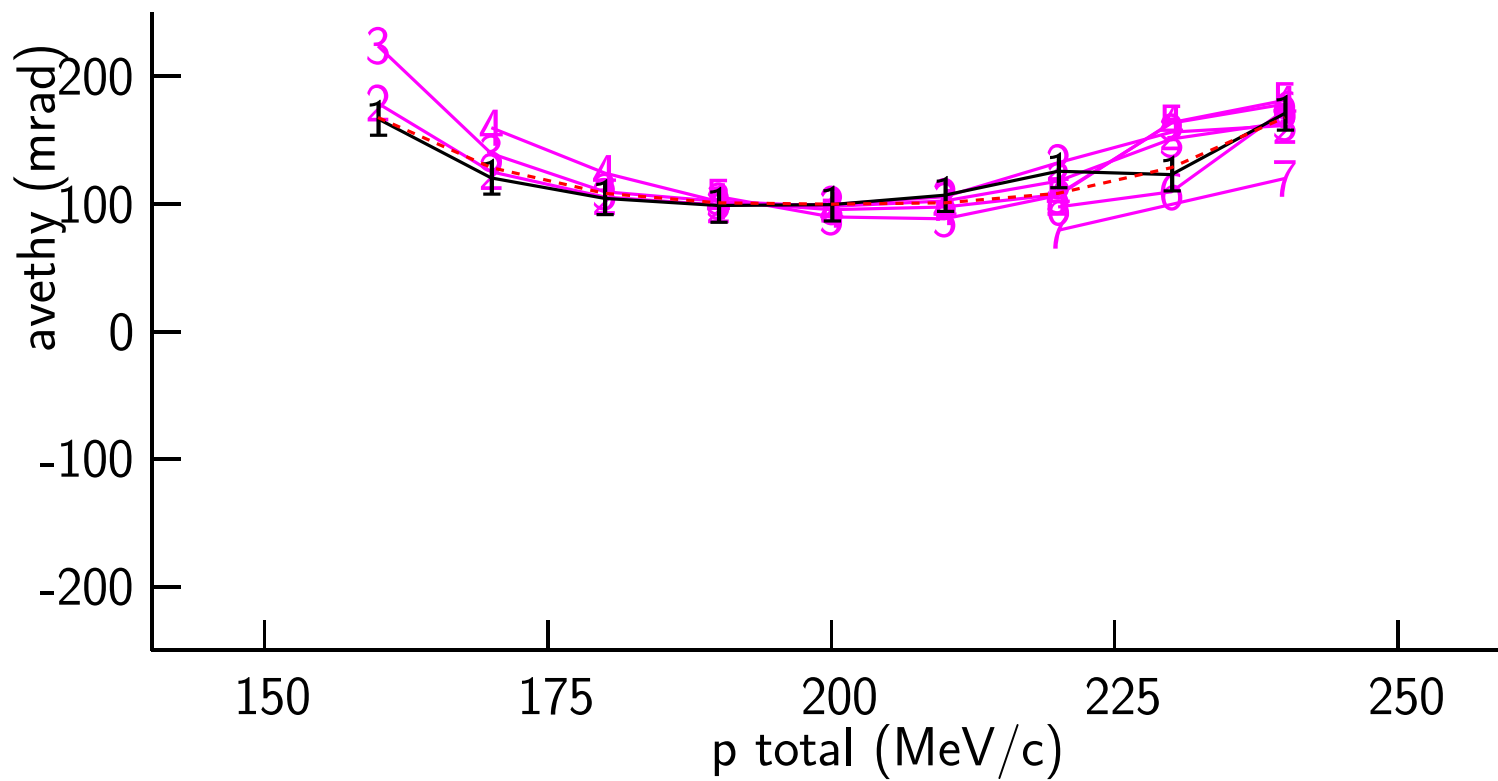


Fig. 4

Disp = 0.0 mrad



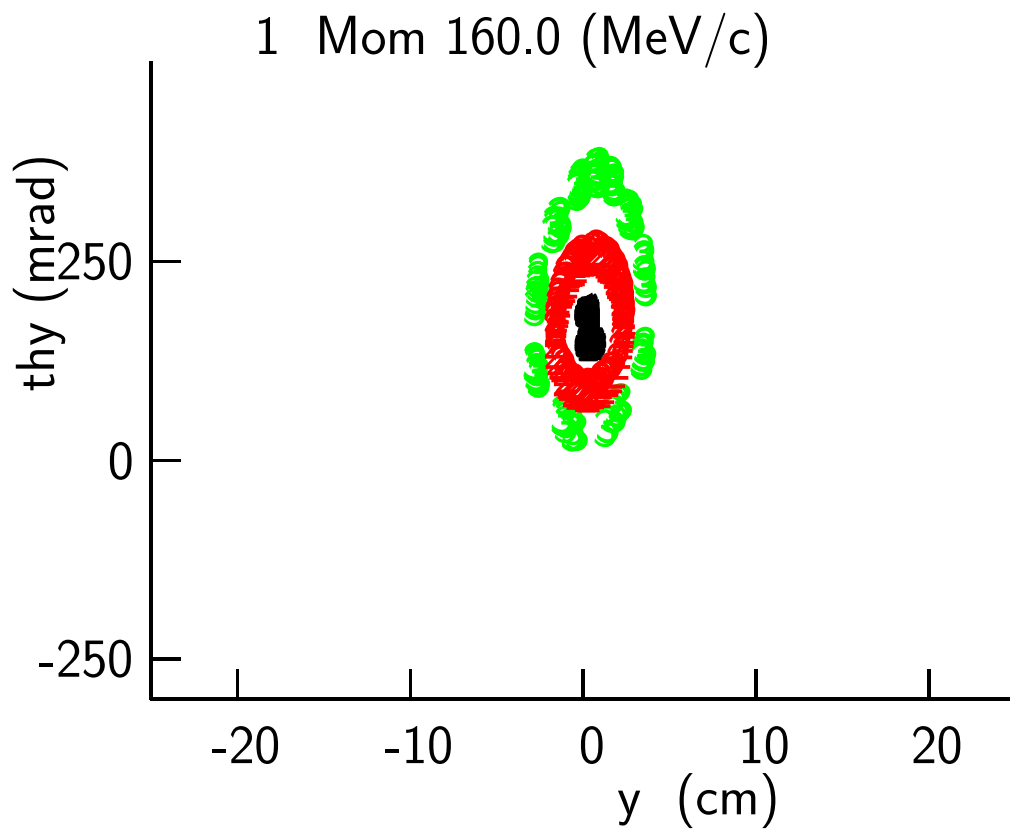


Fig. 1

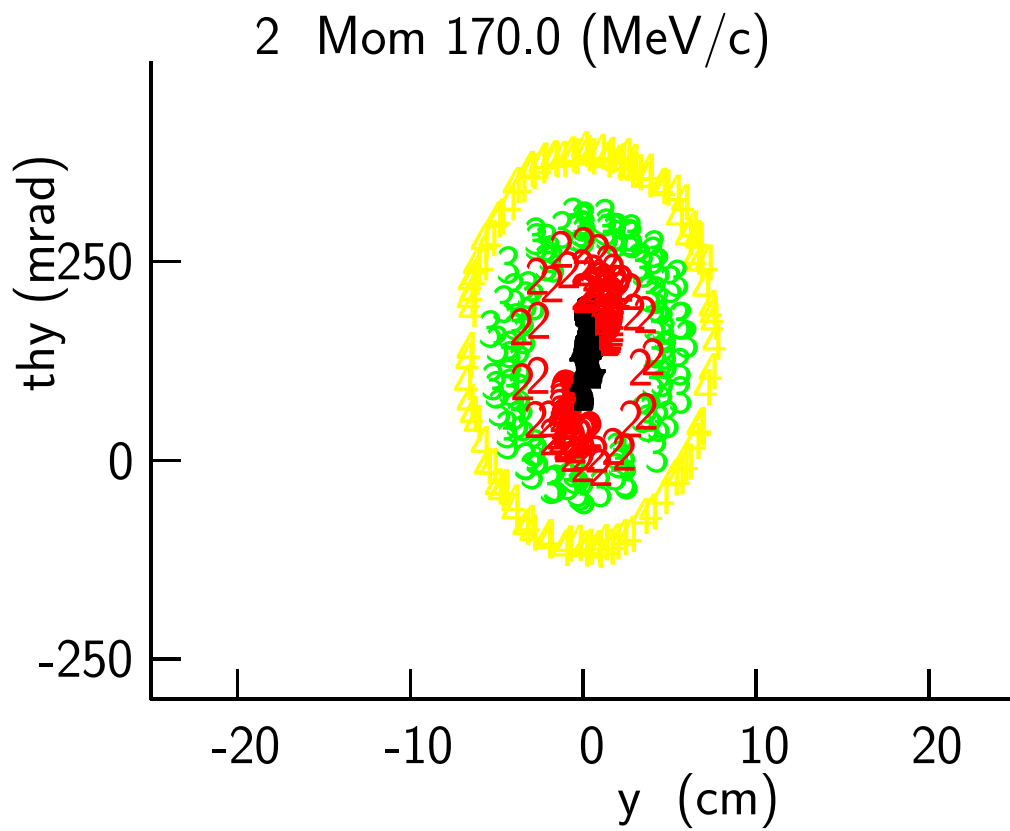


Fig. 2

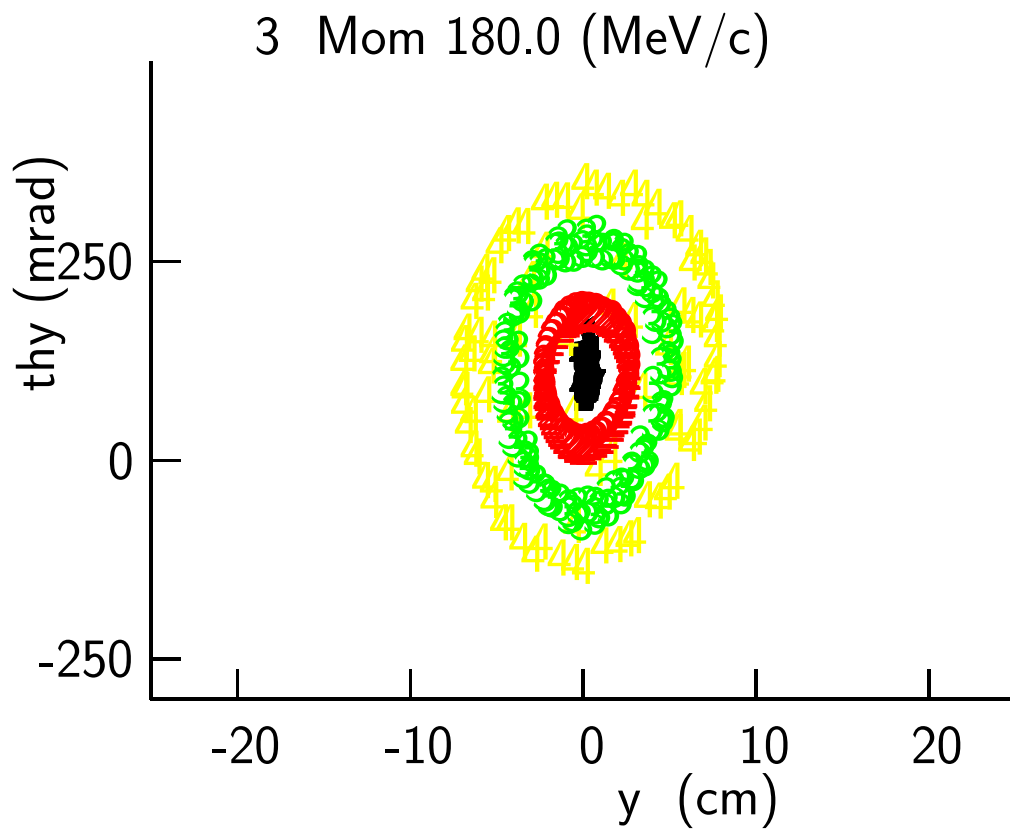


Fig. 3

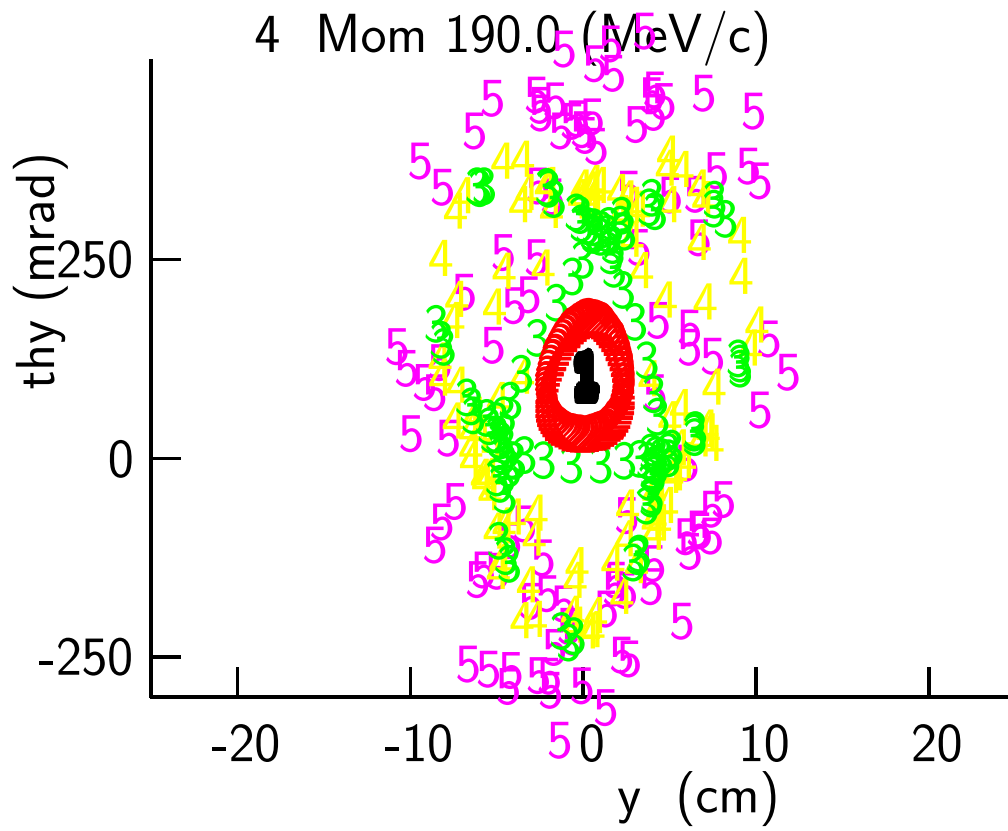


Fig. 4

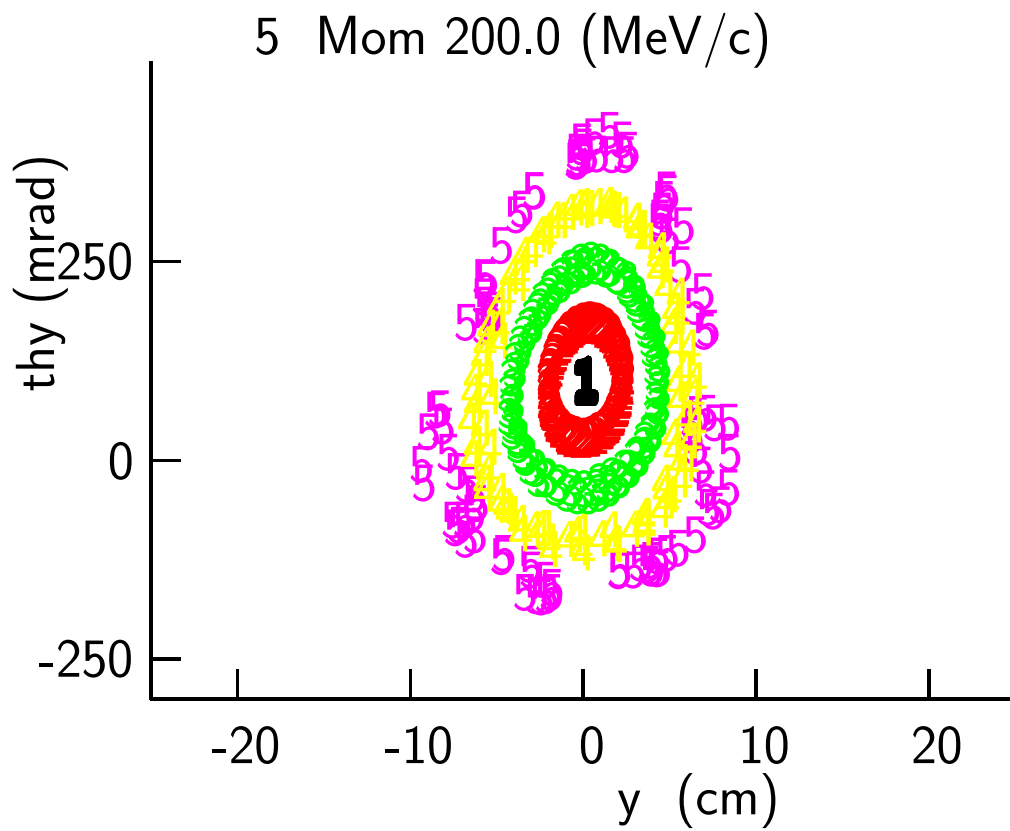


Fig. 5

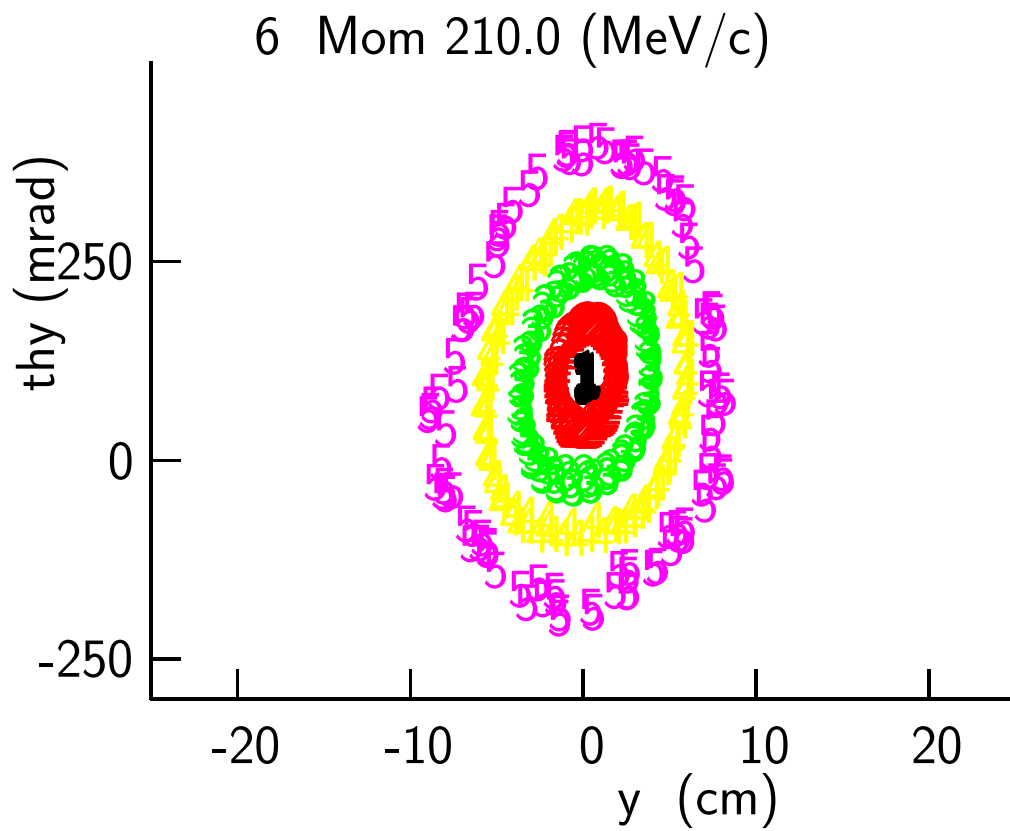


Fig. 6

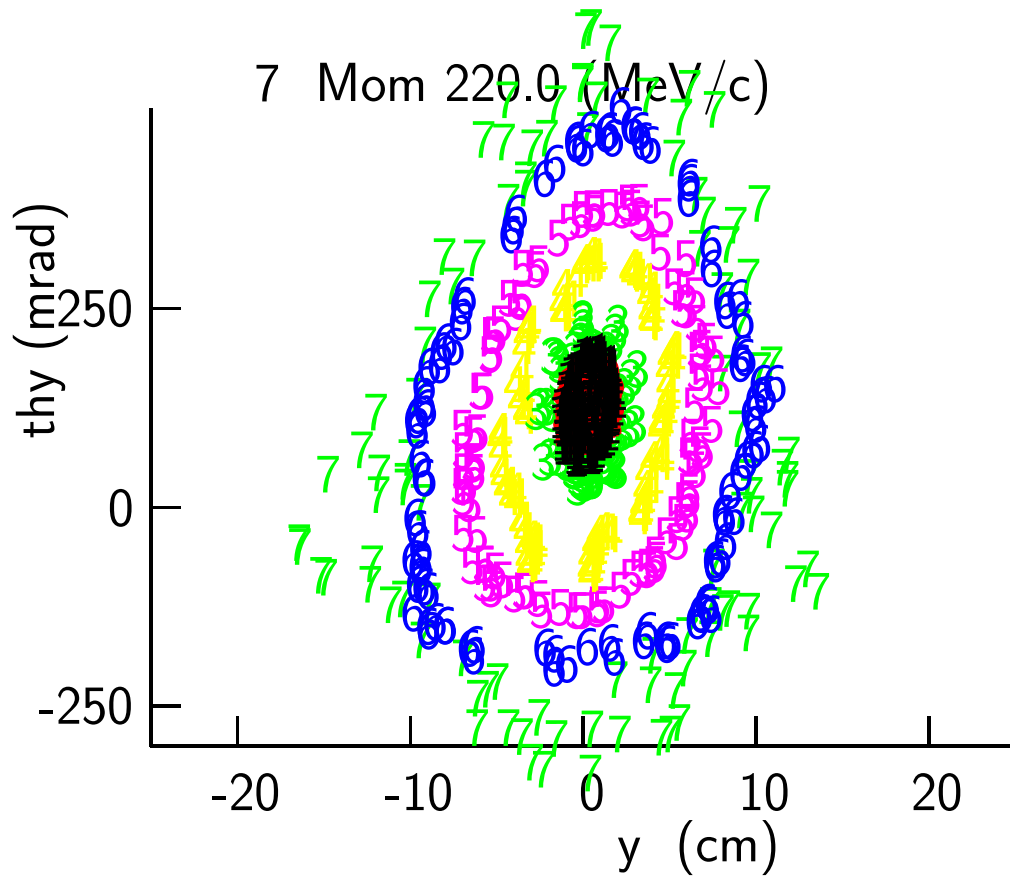


Fig. 7

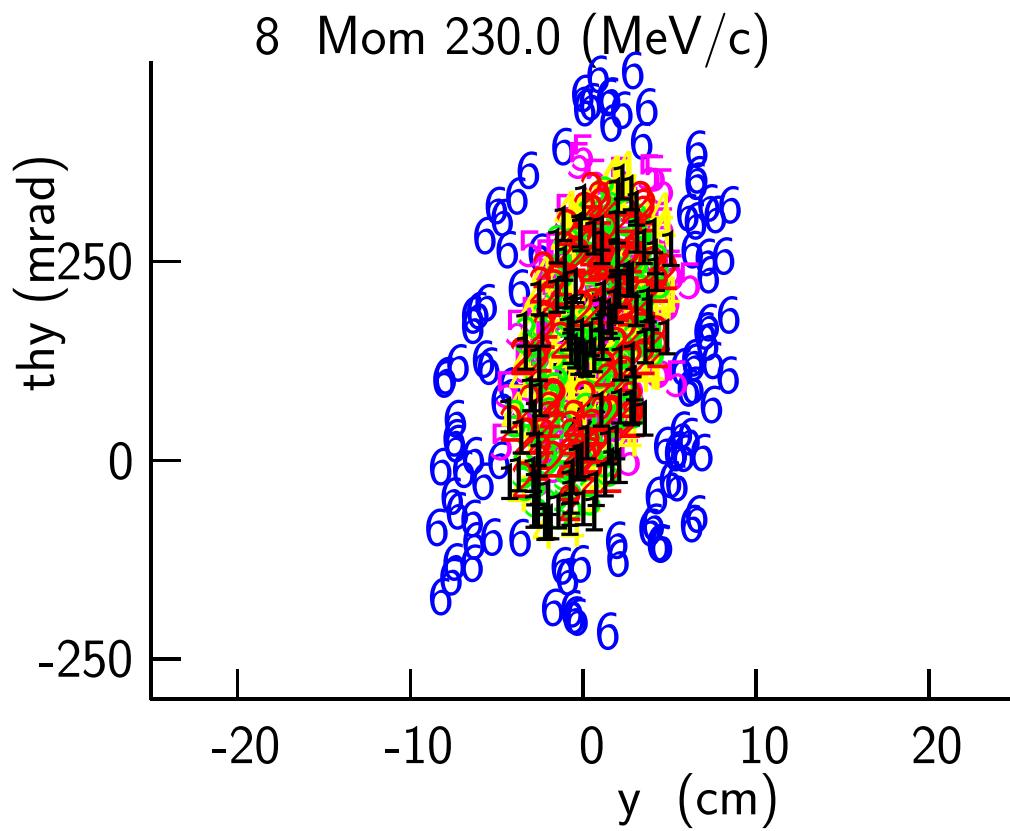
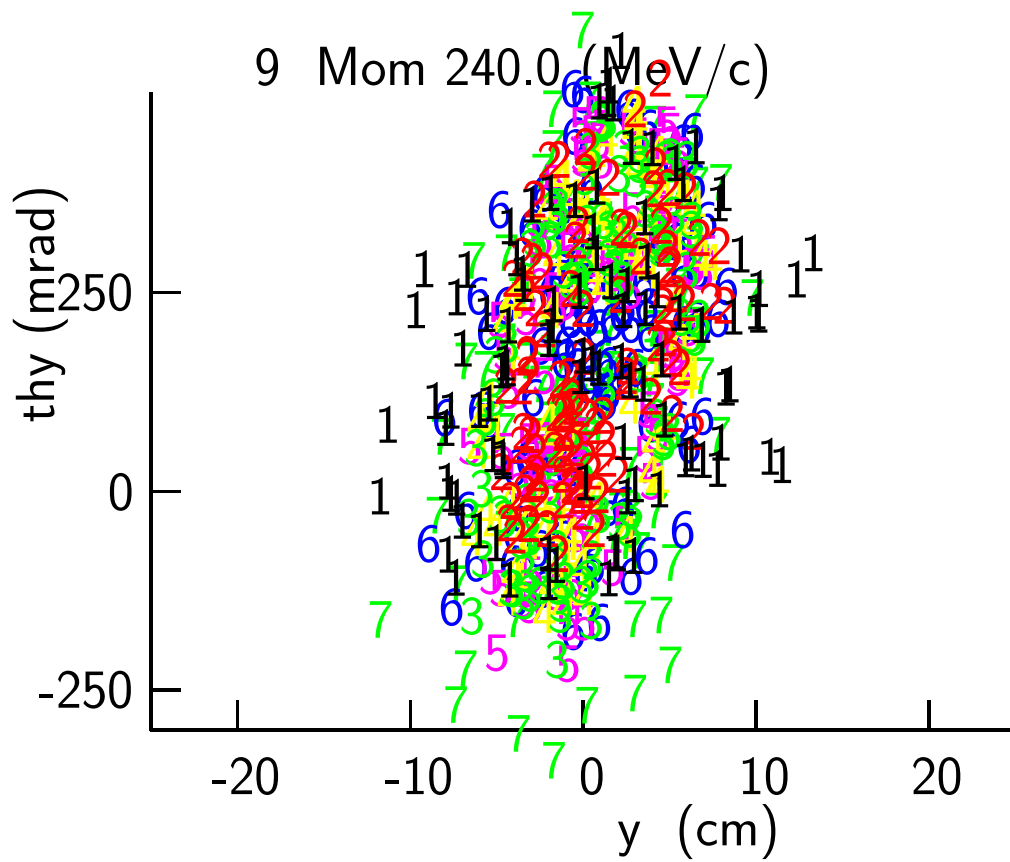
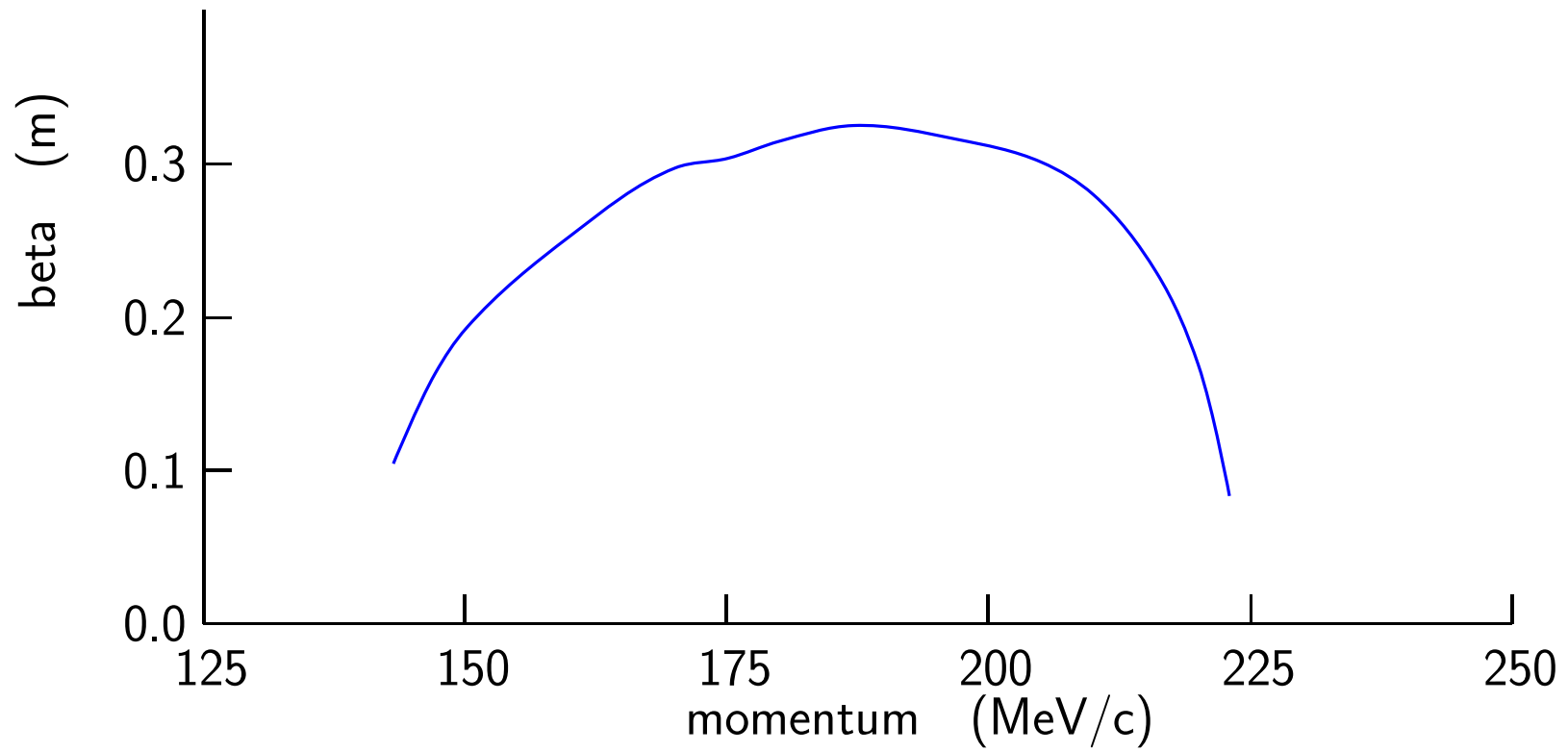


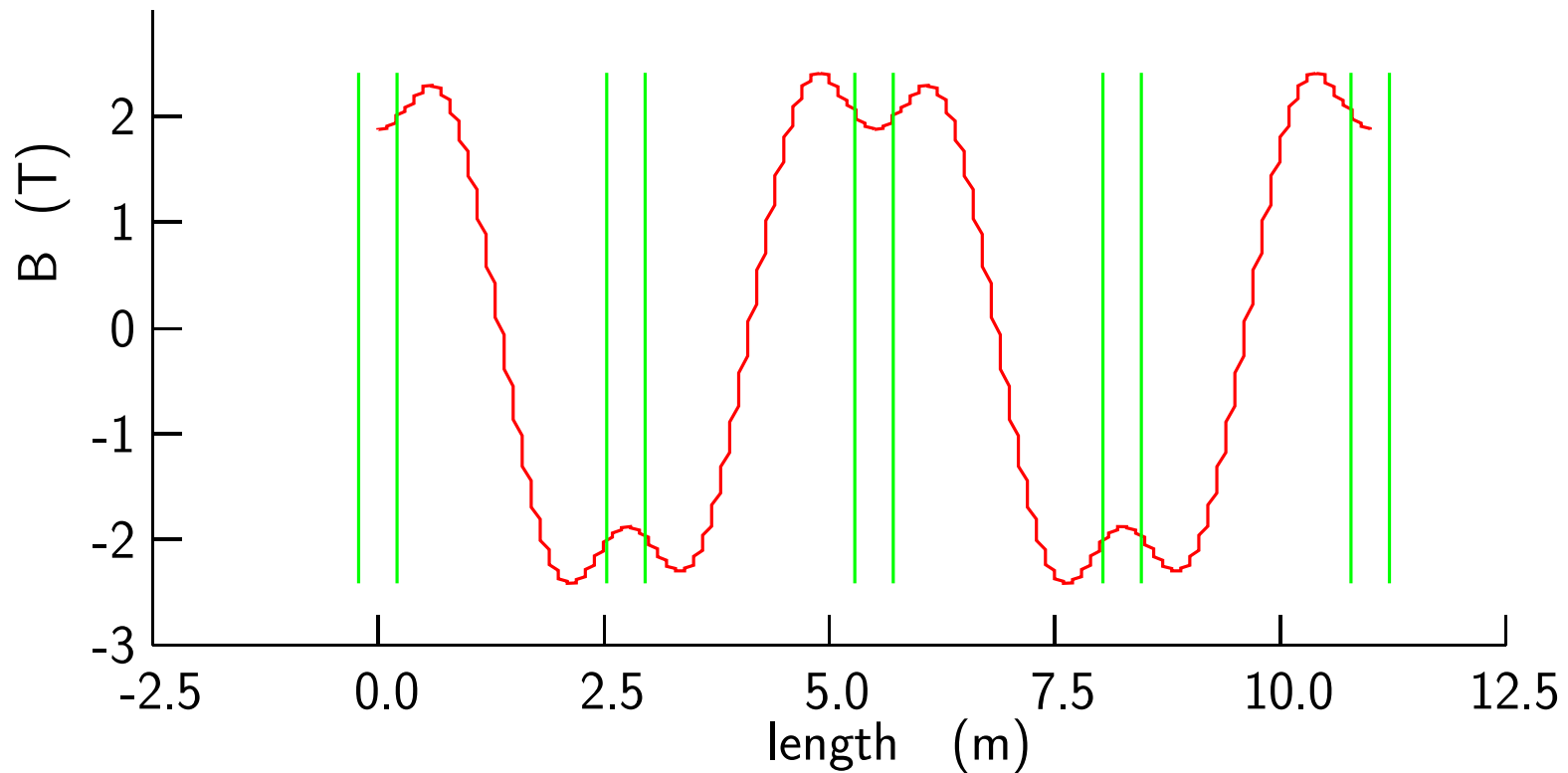
Fig. 8



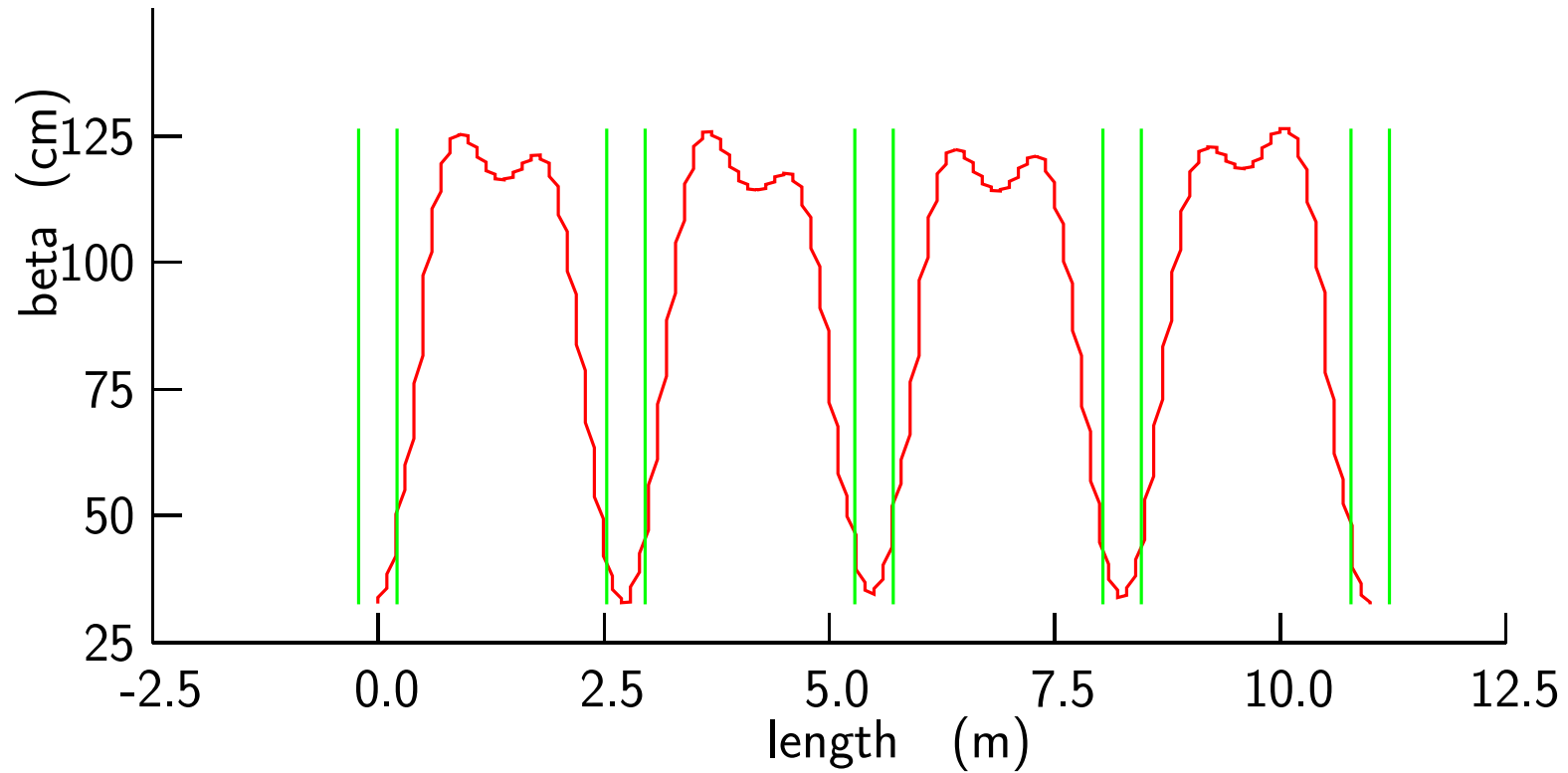
Betas without tilts



Parameters with absorber & rf

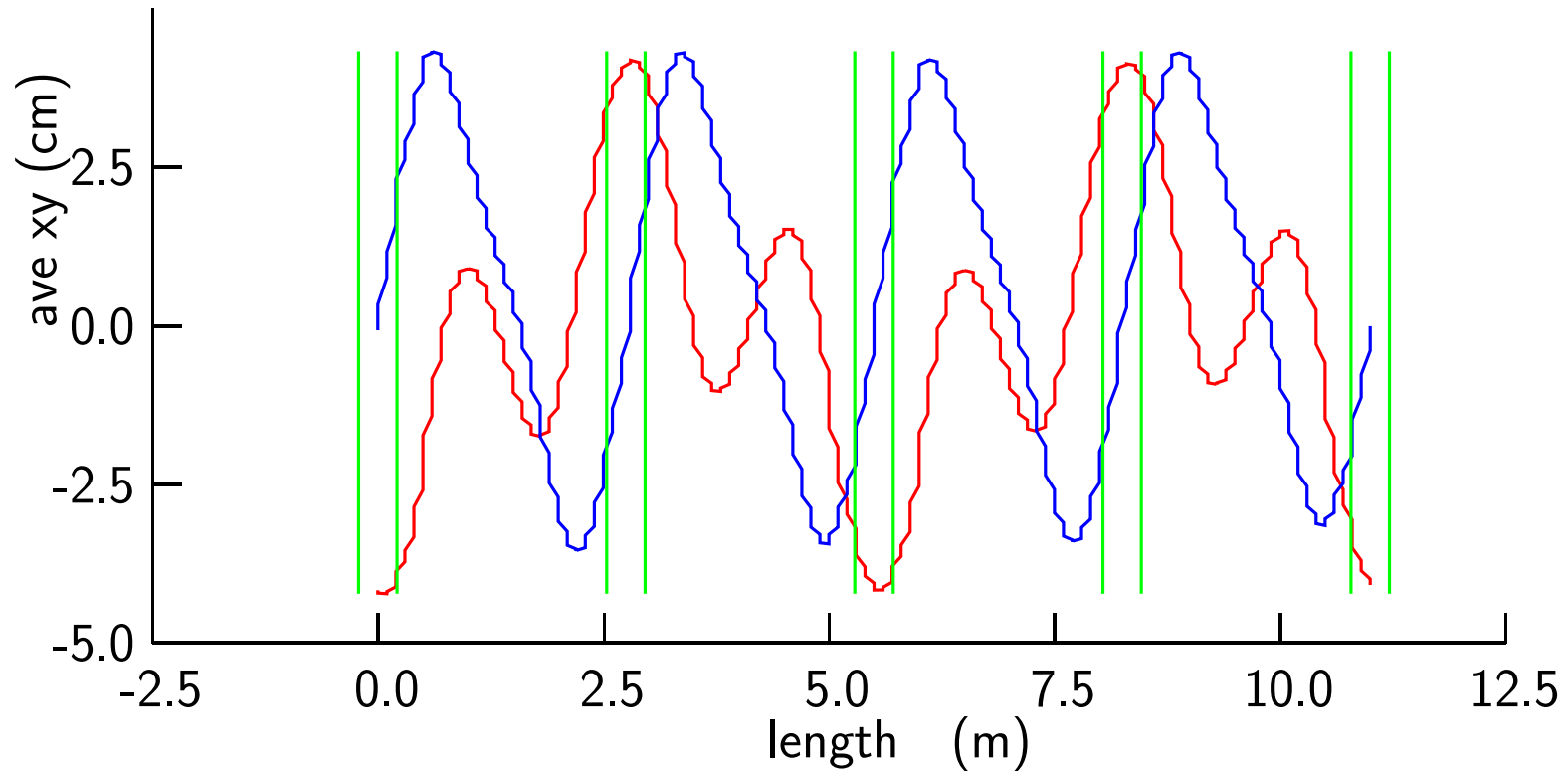


- Solenoid fields slightly higher before absorber than after
not shown above

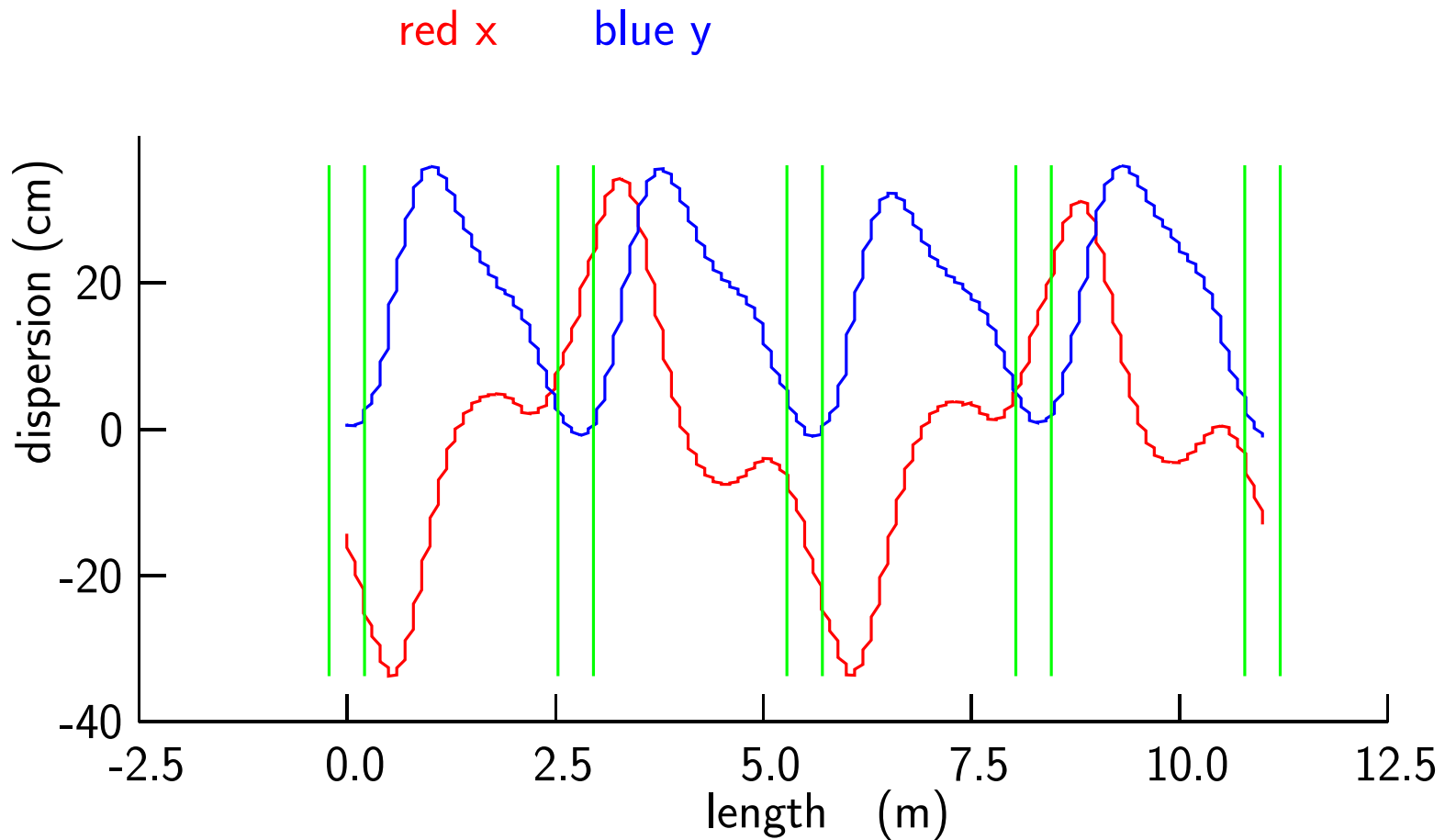


- betas more or less symmetric about absorber
this was not so before tweaking Bz's

red x blue y

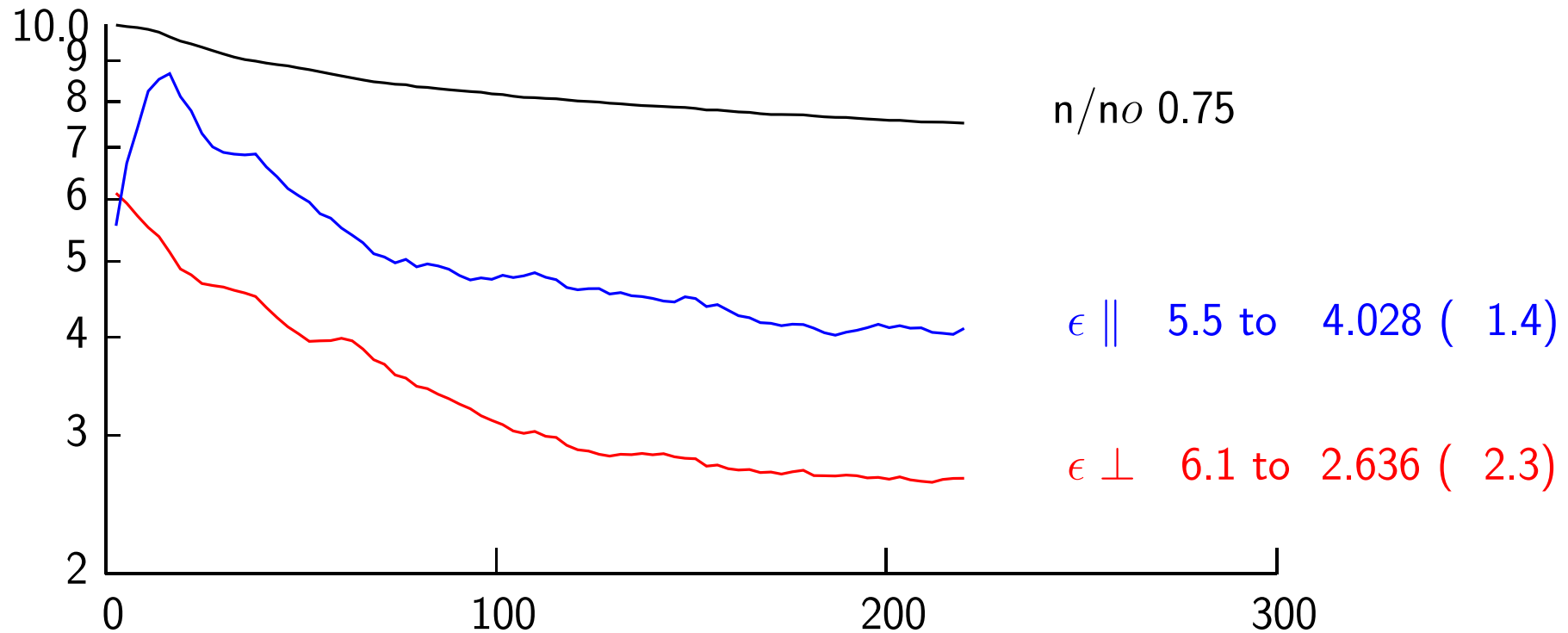


- Displaced in x 5 cm at absorbers
- No displacement in y at absorbers
- But θ_y is significant



- x Dispersion maximal (35 cm!) away from absorbers
- x Dispersion prime is large at absorbers
- y dispersion zero at absorbers

ICOOOL Simulation of cooling



- Ignoring the initial longitudinal miss-match at start
- This cools in all 6 dimensions
- without a wedge
- This will work for both signs!