



NPS/CPS Meeting  
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# SWEEP MAGNET MAPPING DATA

CHARLES HYDE

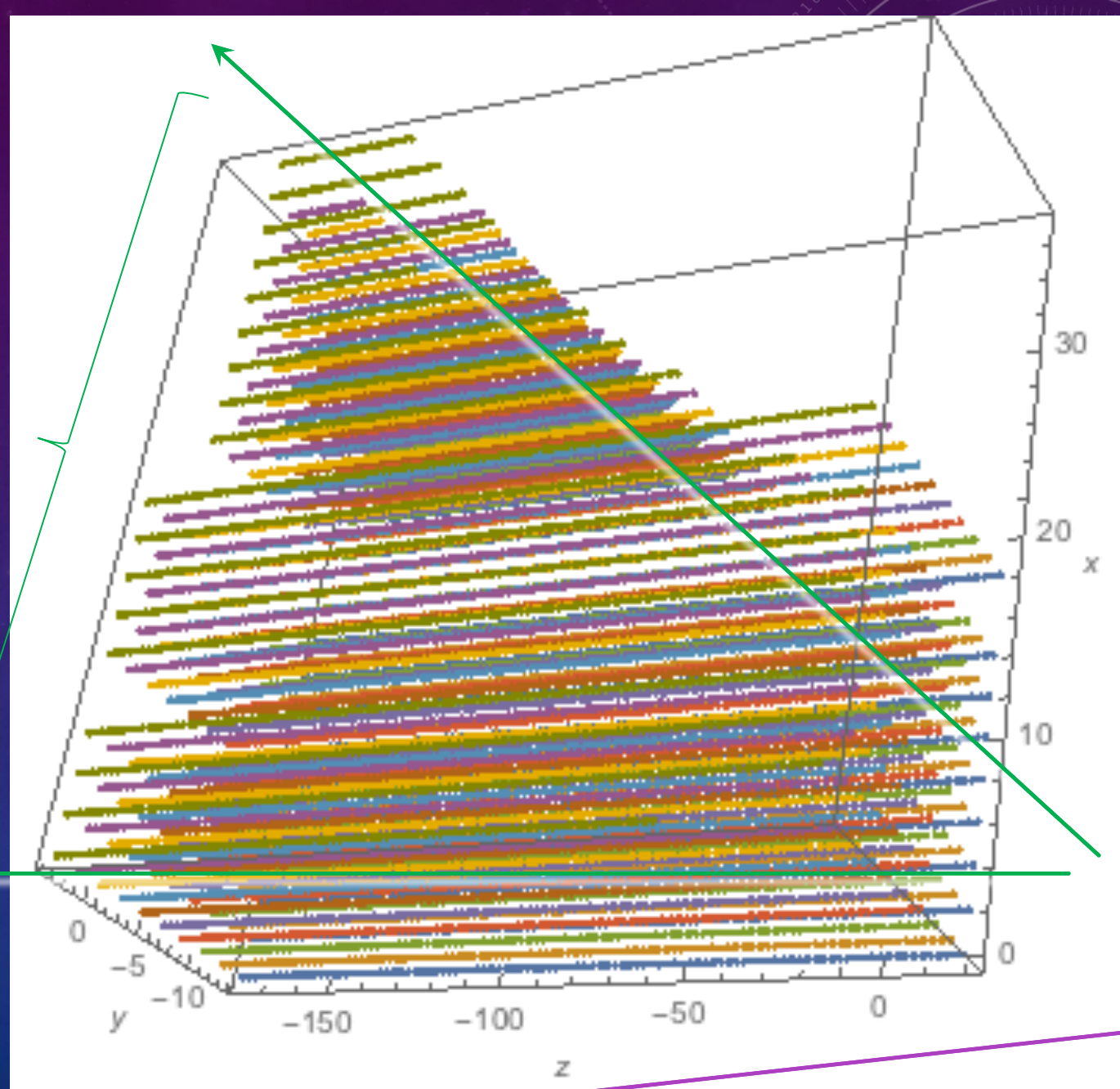
OLD DOMINION UNIVERSITY

Mitch Kerver, Software  
Tom Hartlove, Mechanical

# MAGNET MAPPER

- 3-D Coverage
  - +z towards target
  - +y down
  - +x horizontal away from beamline
- View from below

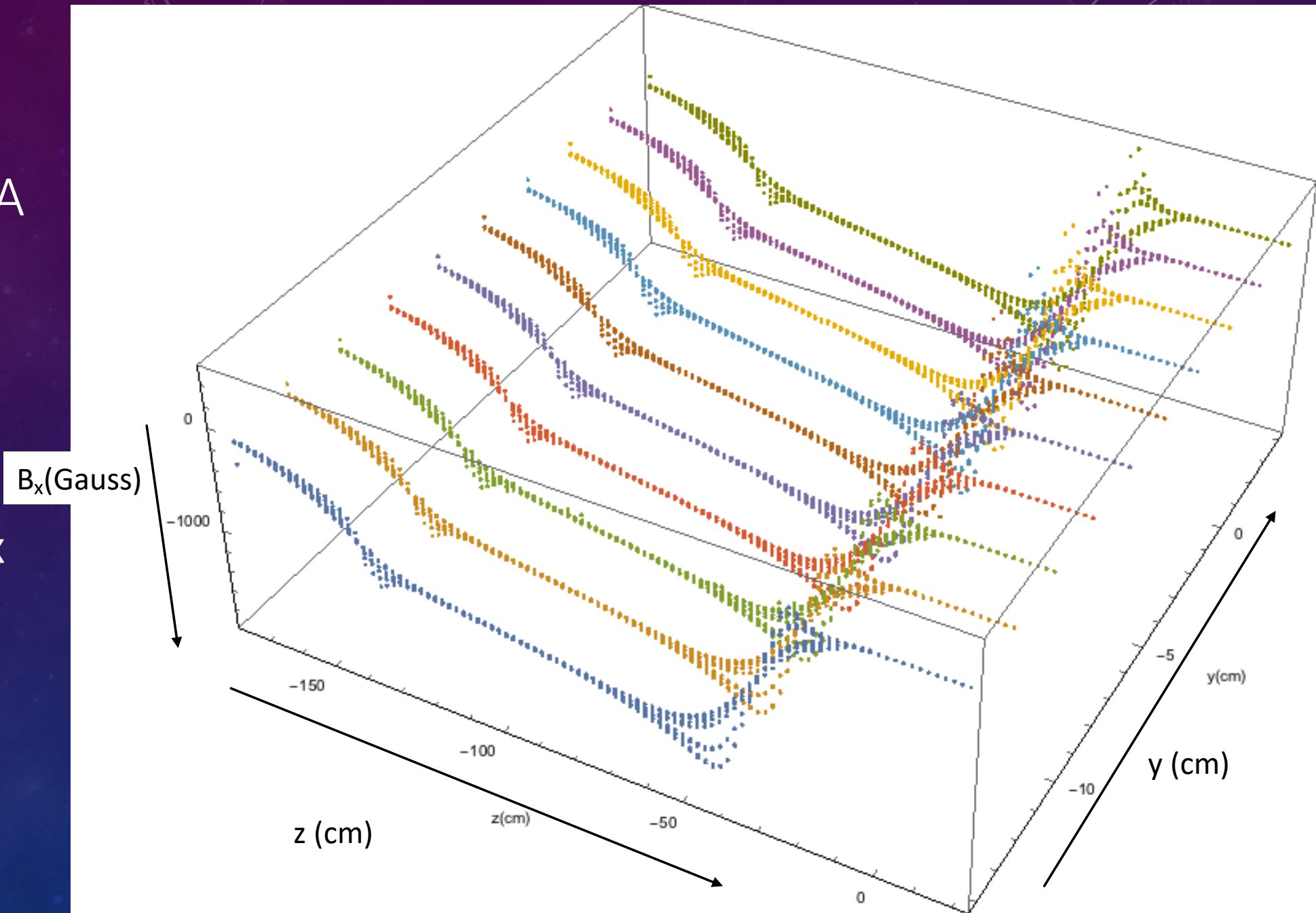
*Gamma  
and  
background*



Beam

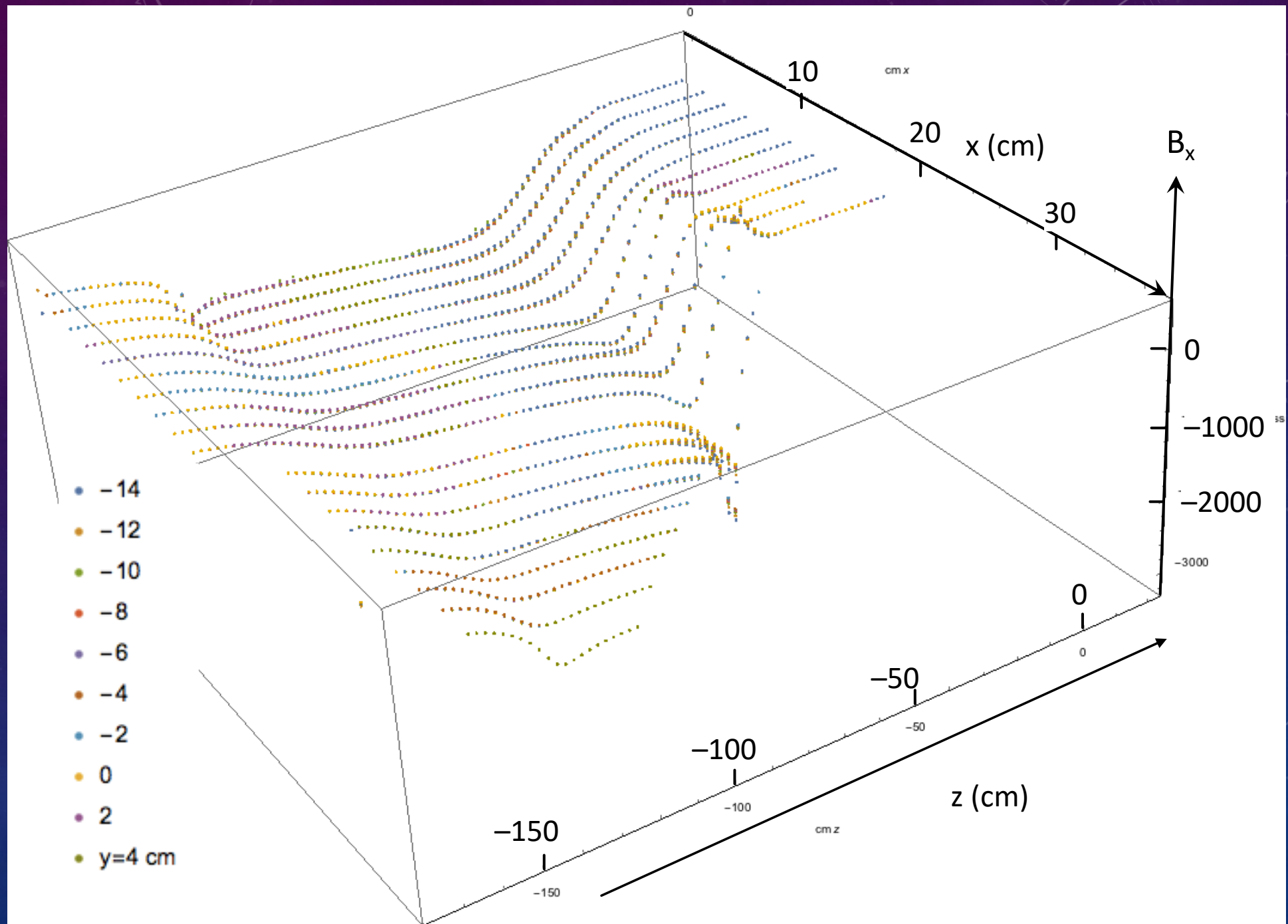
# HORIZONTAL FIELD AT 250 A

- Front trim coil off
- Field uniform in x and y at center of z-range



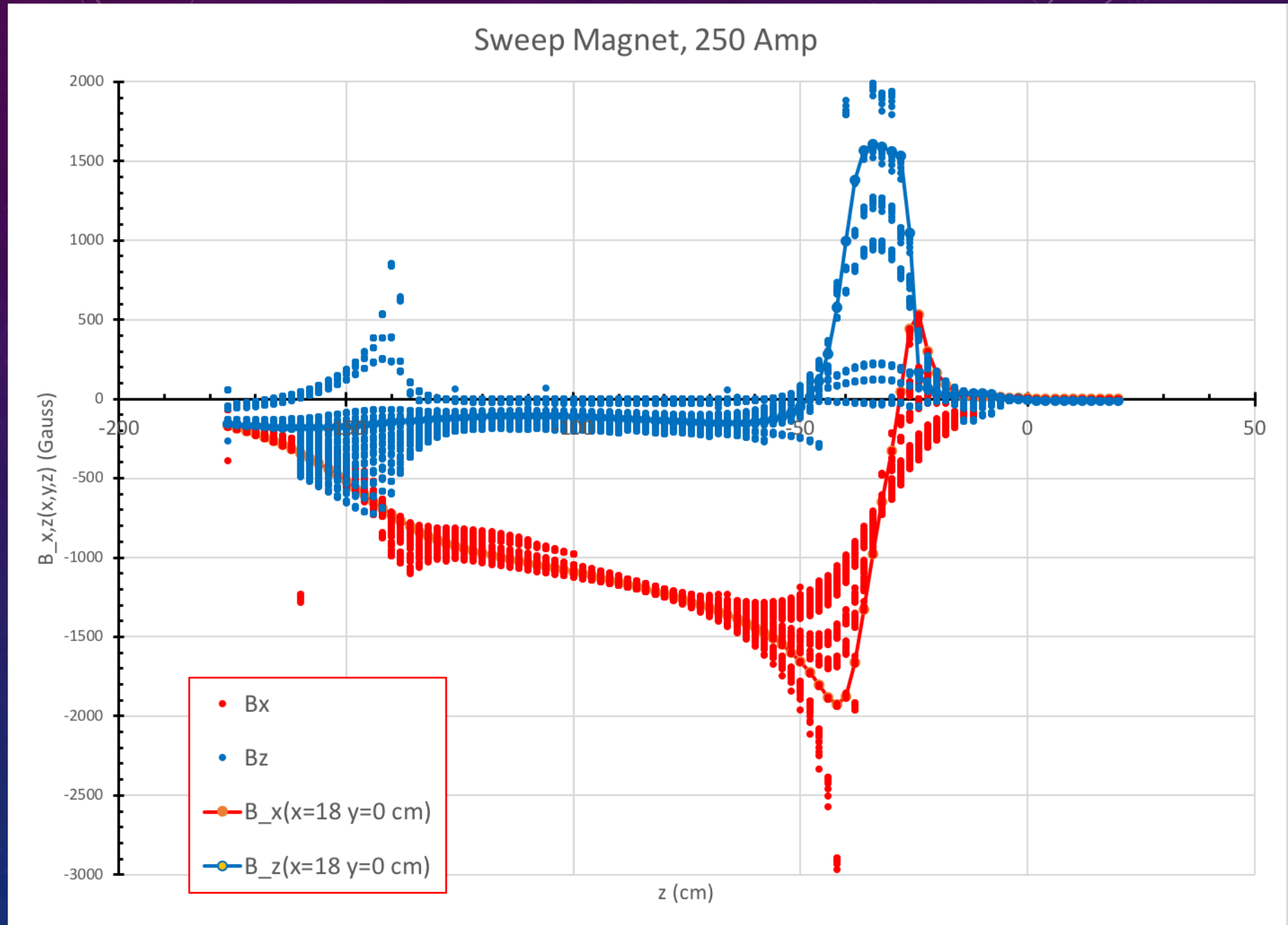
# $B_x$ (Gauss)

- Central Field  $\approx -1100$  Gauss
- Color = various  $y$ -values



$B_x, B_z$

- Various x,y values



# SUMMARY

- $B_x$ ,  $B_y$ ,  $B_z$  data available in full magnet volume
- Beamline data available
- Future work: Local Interpolation to test consistency
  - $\nabla \cdot B = 0$ ?
  - $\nabla \times B = 0$ ?