## HEST, January 8th, 2019

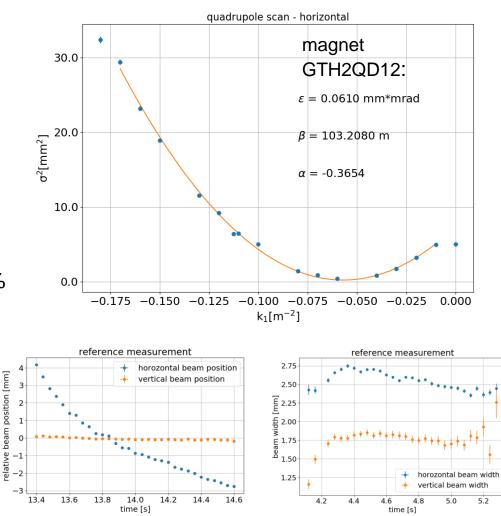


- Engineering Run data analysis ongoing:
  - trajectory response matrix measurement,
  - dispersion measurement,
  - quadrupolar scan,
  - multiple profile measurement,
  - Beam Loss studies.
- Main activity in January:
  - installation of CUPID system (without aperture control) on GTH2DFA scintillating screen – allows more precise beam setting and facilitates quadrupolar scan for emittance measurement.

## Example of quadrupole scan



- Preliminary results for HADES beam line optics used for physics test.
- Location of the measurement is not dispersion free; model dispersion: 10m, measured 1.5m (large discrepancy!); However dp/p for quadrupolar extraction is very small, so dispersion effect should be small.
- Beam size varies during spill by ~10%
- MADX model gives:
  - $\beta_x = 136.5 \text{ m}$
  - $\alpha_x = 14.15$
- Emittance very small, typical number used 0.25 mm\*mrad



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