

# KaonLT Analysis Update

(Heap Coin Analysis)  
(Offset Study)

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# Preview

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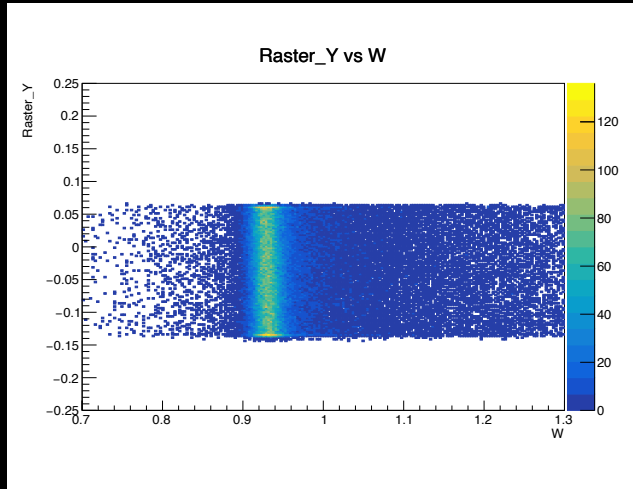
- Dave suggested to look at BPM calibrations to make sure we are using the right ones.
  - All Kaon-LT was using one BPM calibration (from Fall 2018)
- Dave shared new BPM calibrations for Spring 2019 data.
  - Work on BPM grider in Feb 2019
- New Calibration change distributions significantly (mostly Pm, Em, W and all the components).

# High Q<sup>2</sup> Heep Coin Data

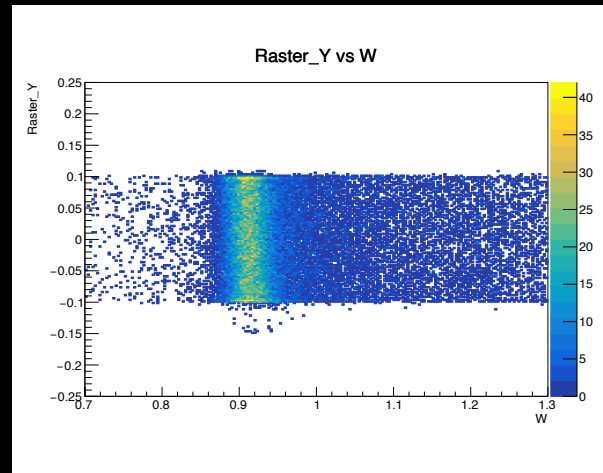
- 6.2 GeV
  - HMS P = 3.57 GeV
  - SHMS P = 3.48 GeV
- 8.2 GeV
  - HMS P = 4.67 GeV
  - SHMS P = 4.37 GeV
- 10.6 GeV
  - HMS P = 6.59 GeV
  - SHMS P = 4.84 GeV

# W vs Raster Y (No offset)

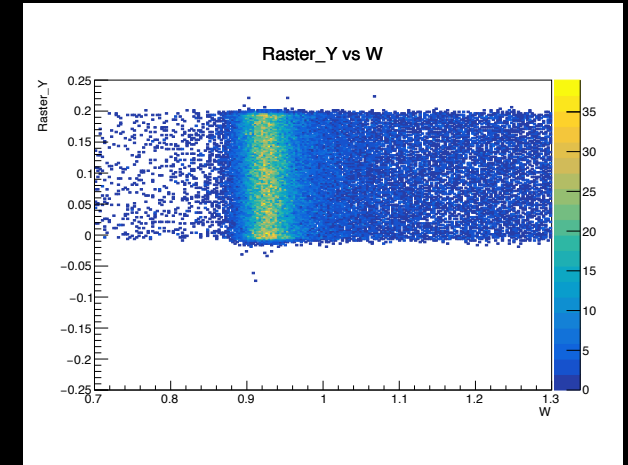
6.2



8.2



10.6



# Out of Plane Offset

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- Carlos Yero does apply two out-of plane offsets (pg. 150-154).
  - One to fix  $P_{my}$
  - Second to fix  $x_{ptar}$  (manually moves  $x_{ptar}$ )
- Tanja thesis has better method.
  - What is beam offset ( $D$ )?
  - Is it okay to use  $x_{ptar}$  mean values and error?
  - Do constants come from optics matrix elements?

# Summary

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- Wrong BPM calibrations were being used for spring data.
  - New calibrations change distributions
- Checked raster calibrations and sign.
- Working on out-of plane offset using Tanja's method.