XLEAP wiggler 3 post-shim scans

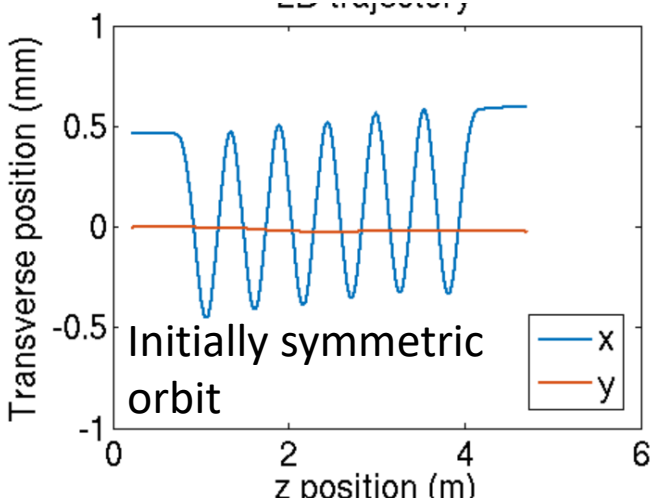
(used to be known as wiggler 1 before installation)

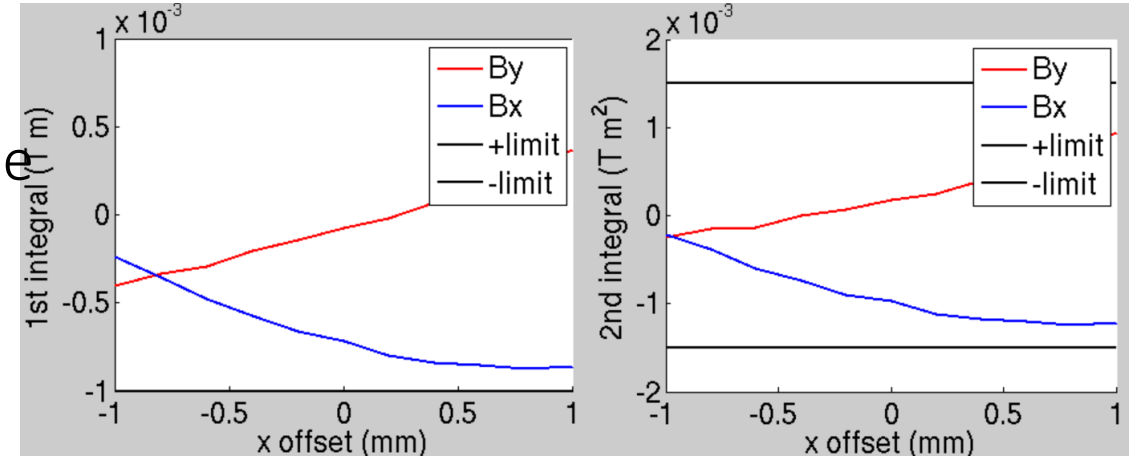
XLEAP Wiggler 3 scans

- W3R35: one of the half shims removed from the last pole (focal length -30 m @ 4 GeV)
- W3R31: Symmetrizing shims (focal length -22 m @ 4 GeV)
- W3R22: One set of shims removed from end pole (focal length -41 m @ 4 GeV)
- W3R15: After shimming (focal length -22 m @ 4 GeV)
- W1R18: Before shimming (focal length 4 m @ 4 GeV)

XLEAP wiggler 3 shimmed

one of the half shims removed from the last pole



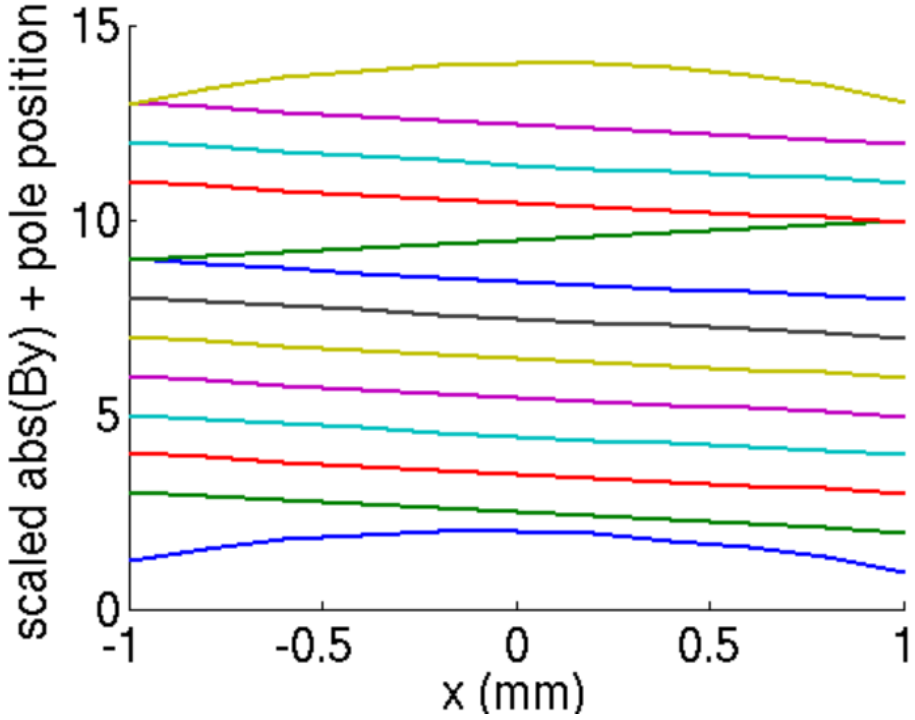


Transport matrix (4 GeV)
0.9244 4.3330
-0.0330 0.9272

Focal length = -30 m

(Previously -22 m)

dx dy dxp dyp =
133 um -24 um 23 urad -6 urad

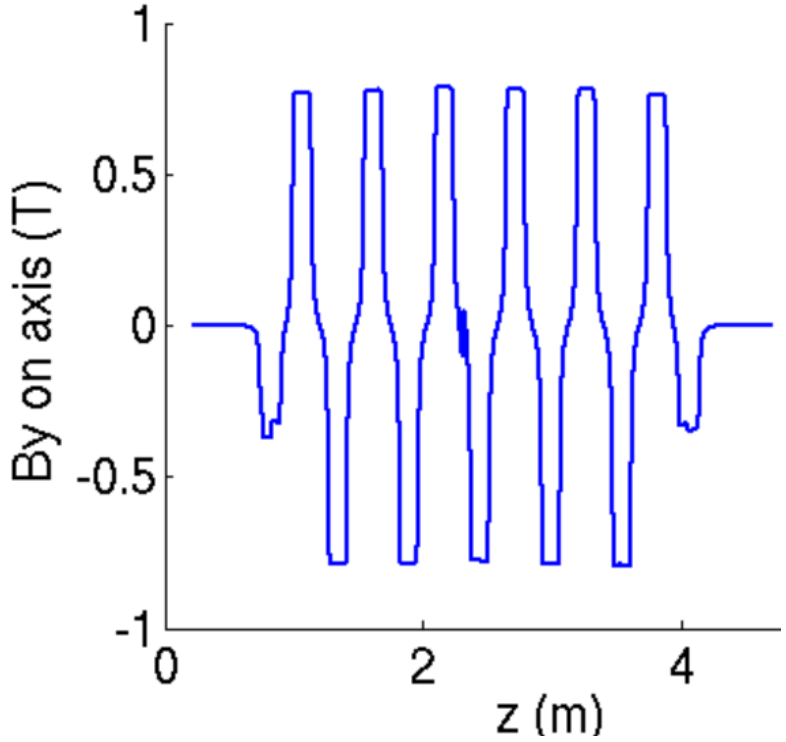


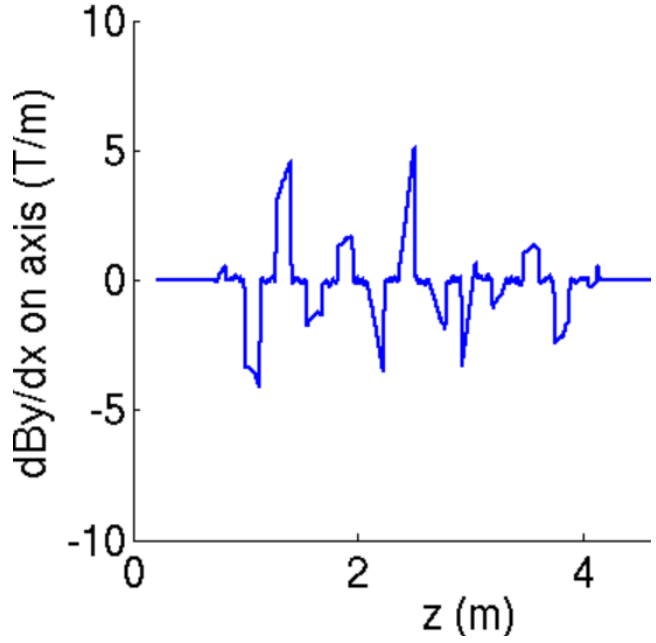
https://www-group.slac.stanford.edu/met/MagMeas/MAGDATA/LCLS-II/Undulator/X-LEAP-3/DATASET0002/Final Results/Run%20035/

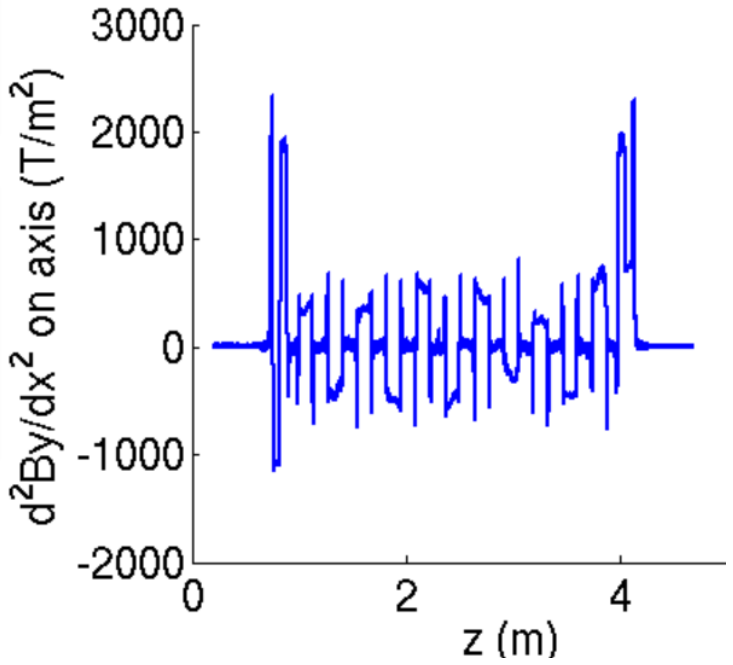
~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\ 035/

XLEAP wiggler 3 shimmed

one of the half shims removed from the last pole



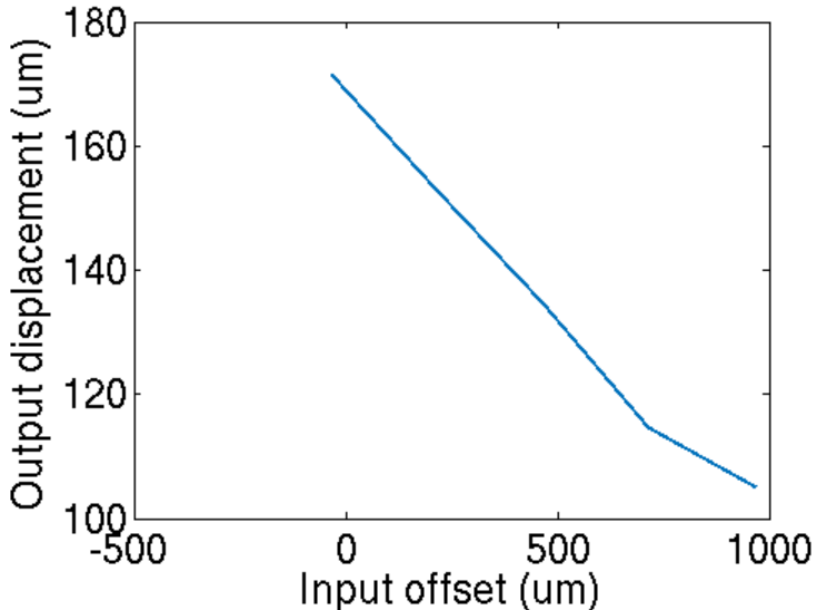


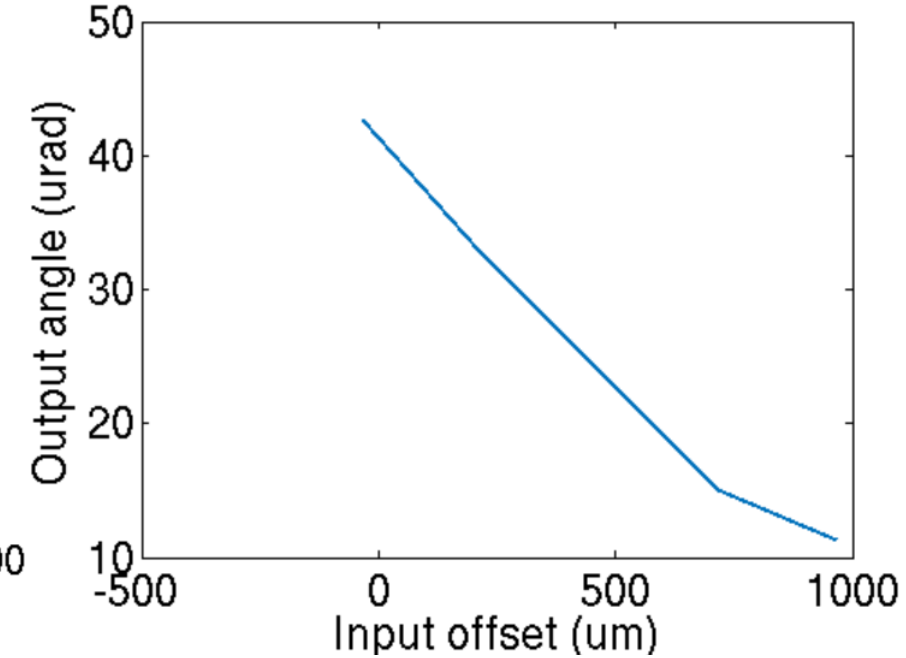


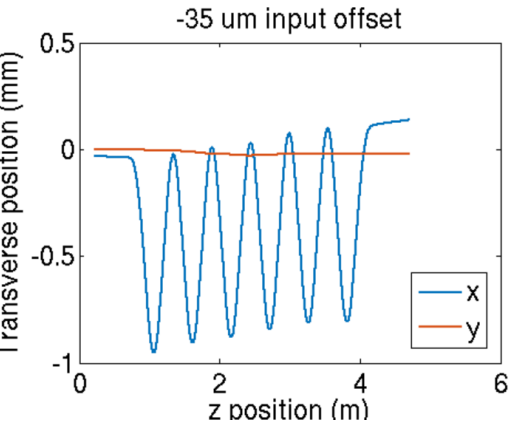
~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\ 035/

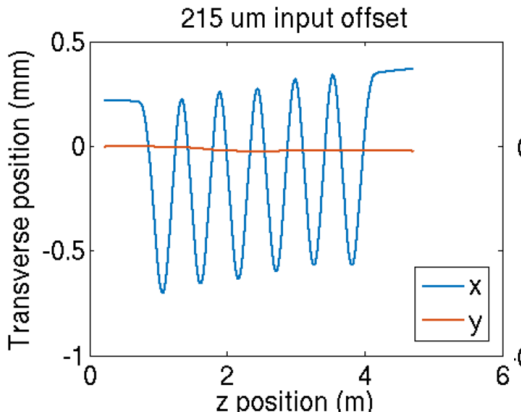
~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\.035/

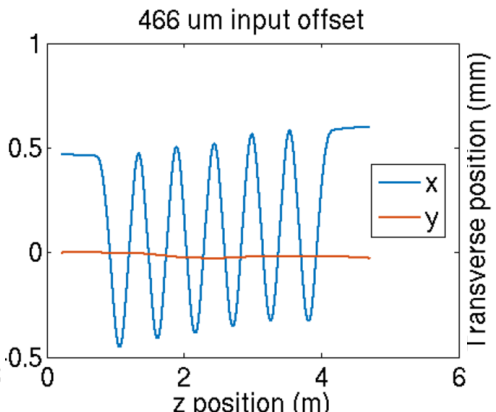
X-offset scan - Wiggler 3 one of the half shims removed from the last pole

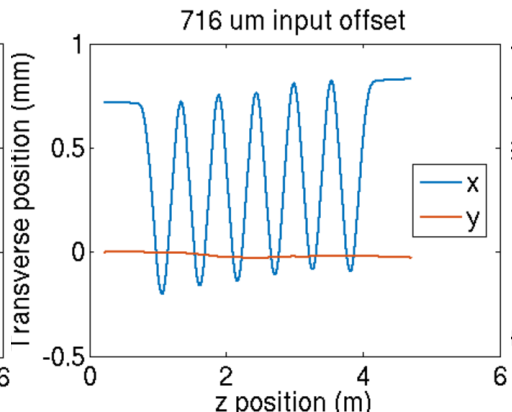


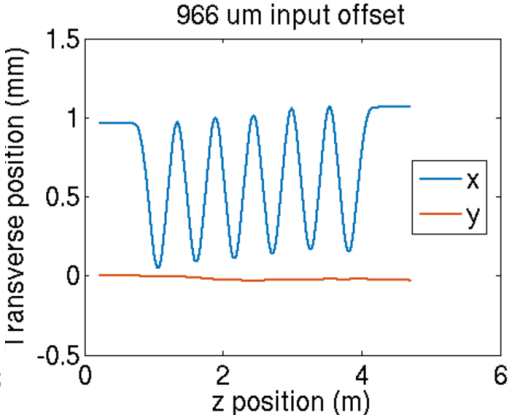




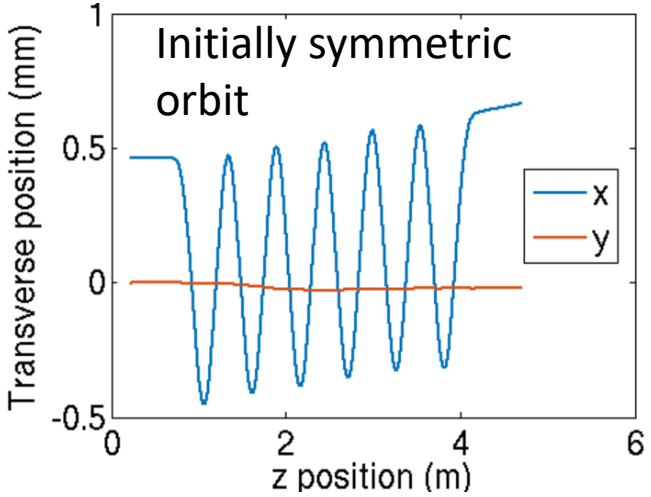








XLEAP wiggler 3 shimmed with shims symmetrized



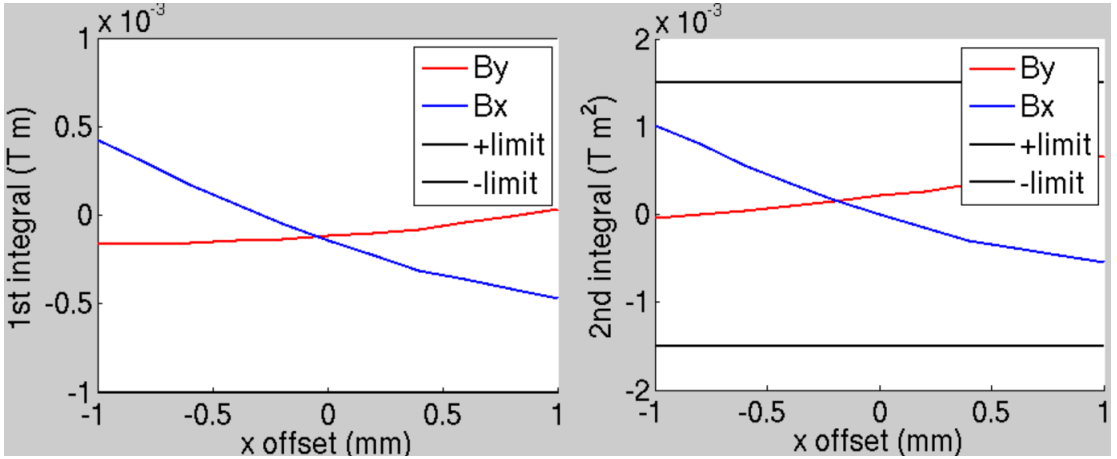
Transport matrix (4 GeV)

0.9114 4.3213

-0.0449 0.8843

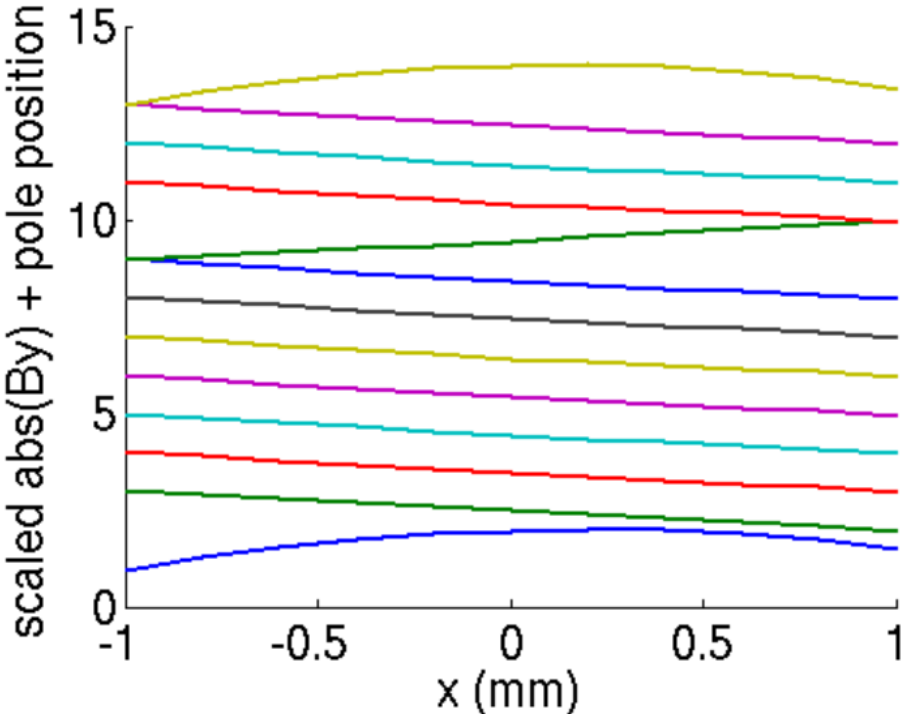
Focal length = -22 m

(Previously -41 m)



dx dy dxp dyp =

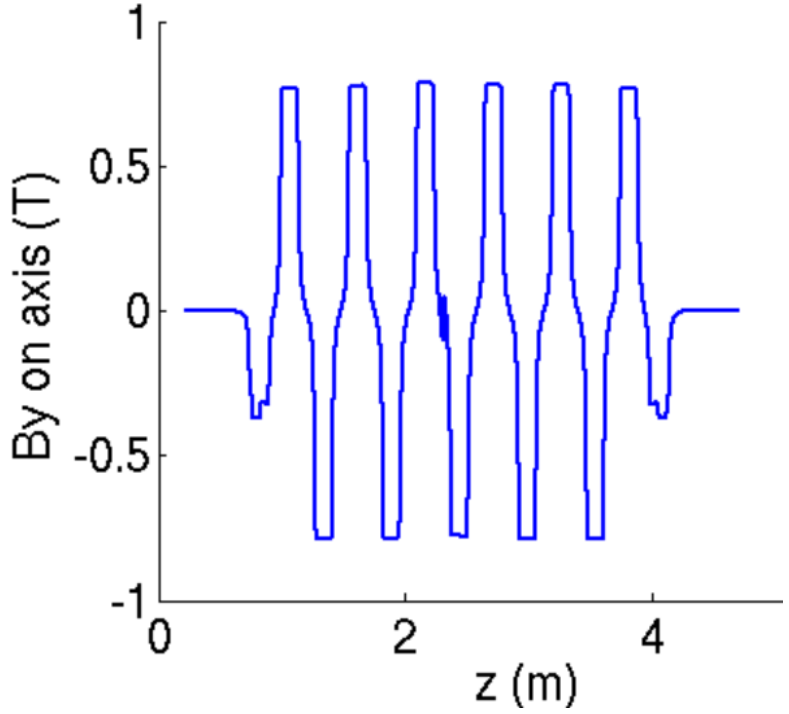
199 um -19 um 61 urad 8 urad

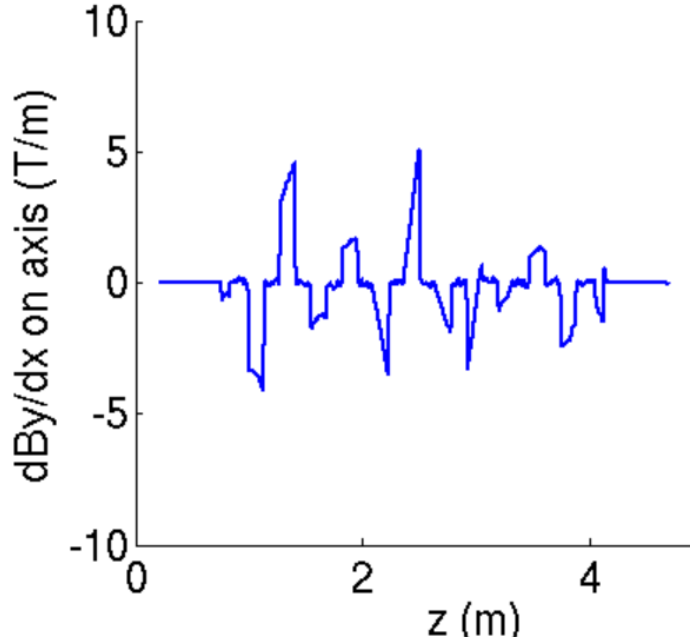


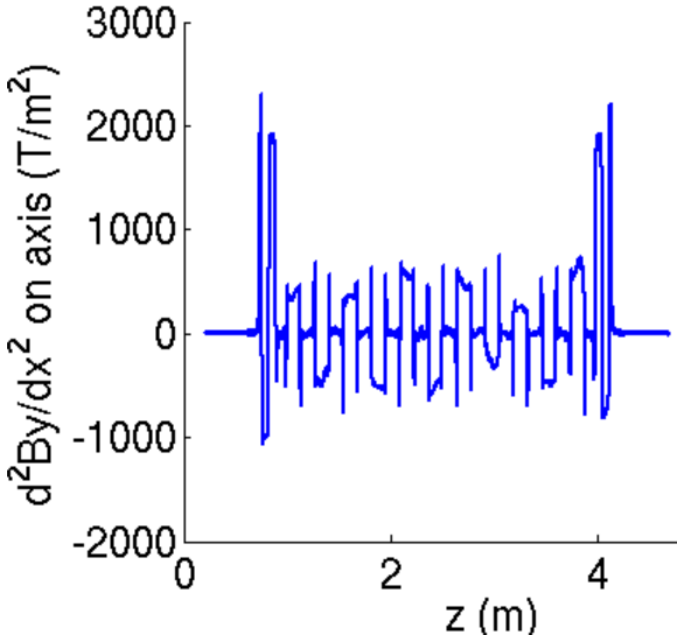
https://www-group.slac.stanford.edu/met/MagMeas/MAGDATA/LCLS-II/Undulator/X-LEAP-3/DATASET0002/Final Results/Run%20031/

~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\ 031/

XLEAP wiggler 3 shimmed with shims symmetrized



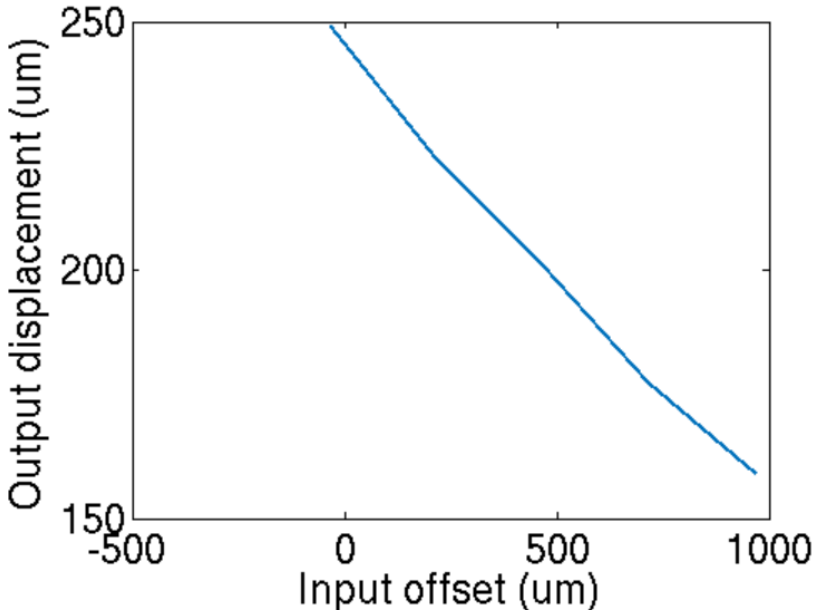


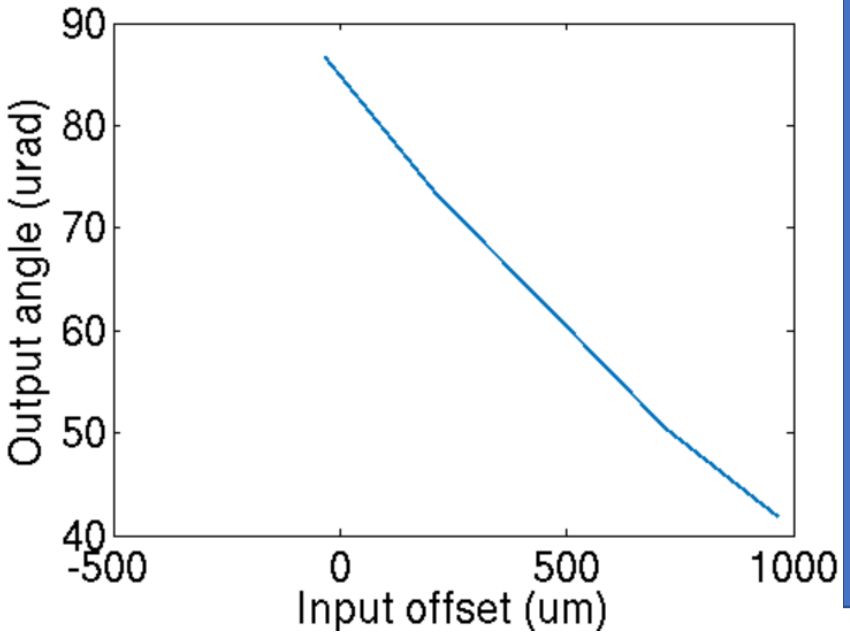


~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\ 031/

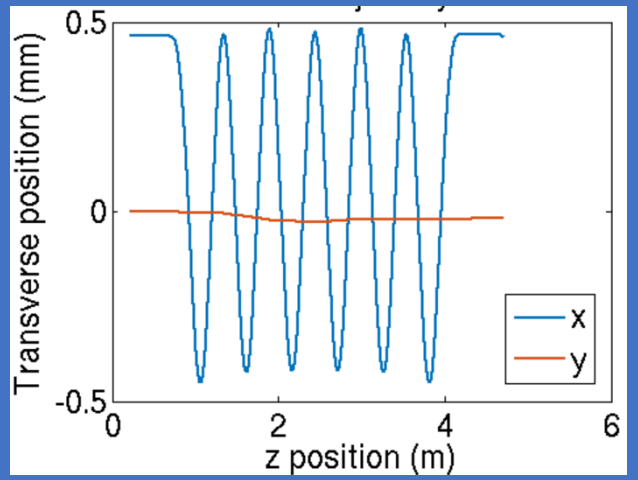
~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Final Results/Run\ 031/

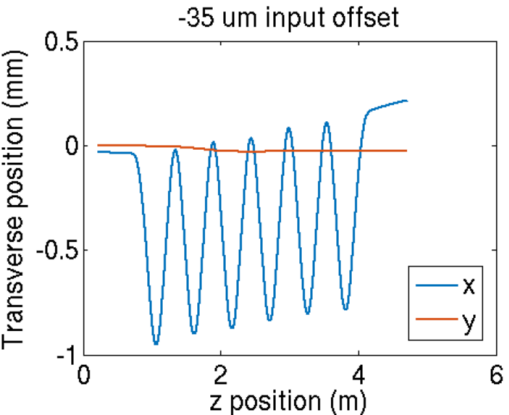
Wiggler 3 with shims symmetrized x-offset scan

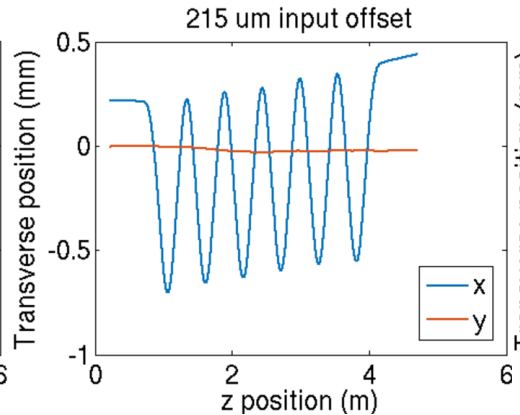


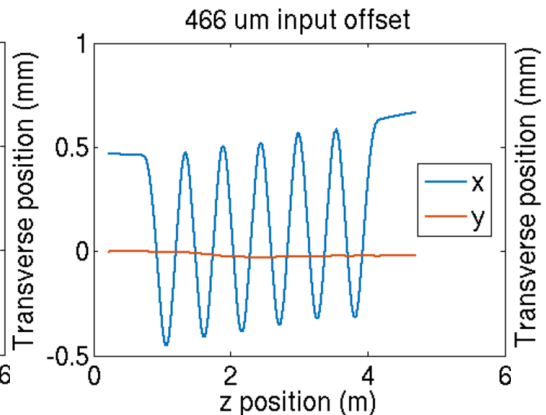


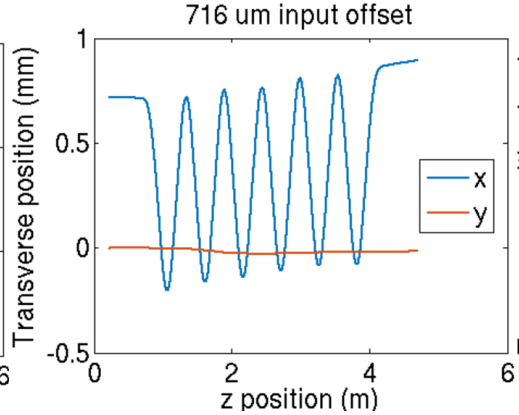
Compare to orbit with on-axis field and no field roll-off in x

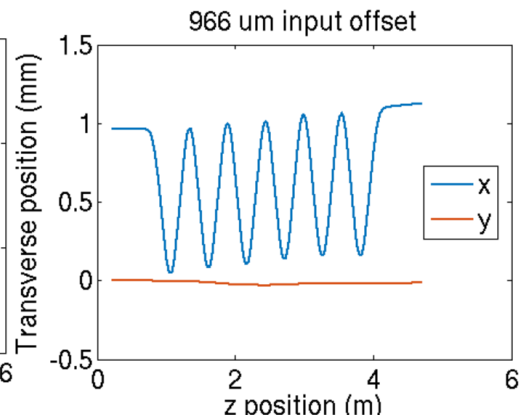




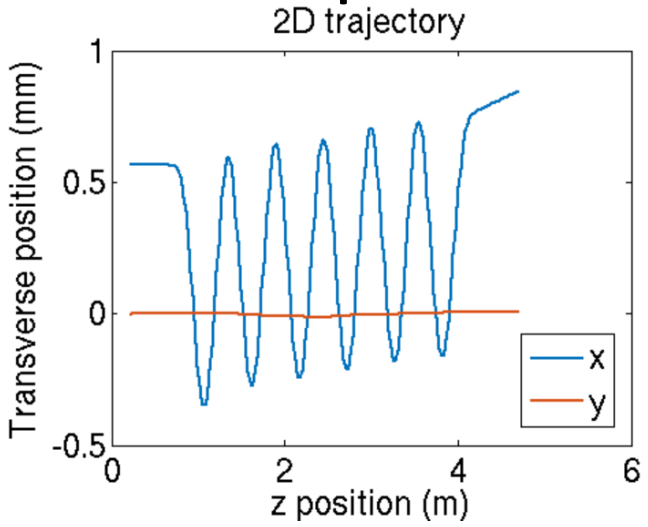








XLEAP wiggler 3 shimmed but 1 pole shims removed



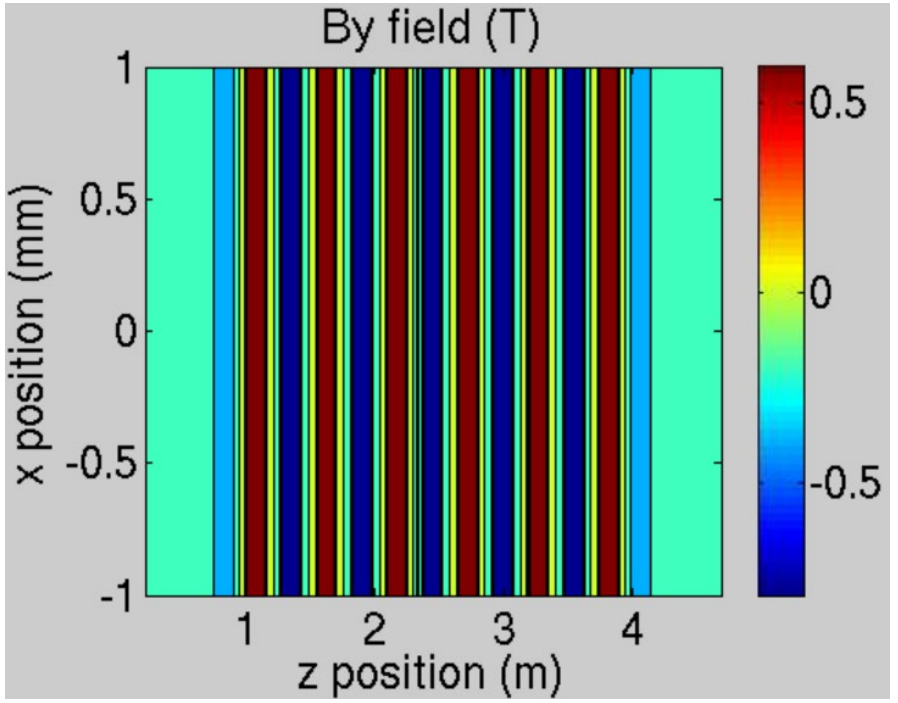
Transport matrix (4 GeV)

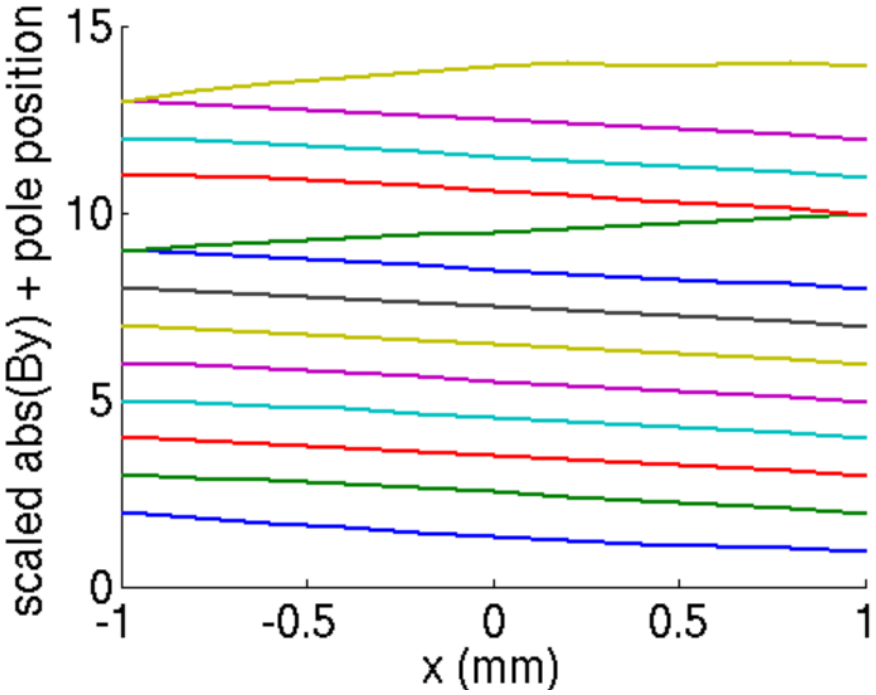
0.9816 4.3944

-0.0243 0.9099

Focal length = -41 m

(Previously -21 m)





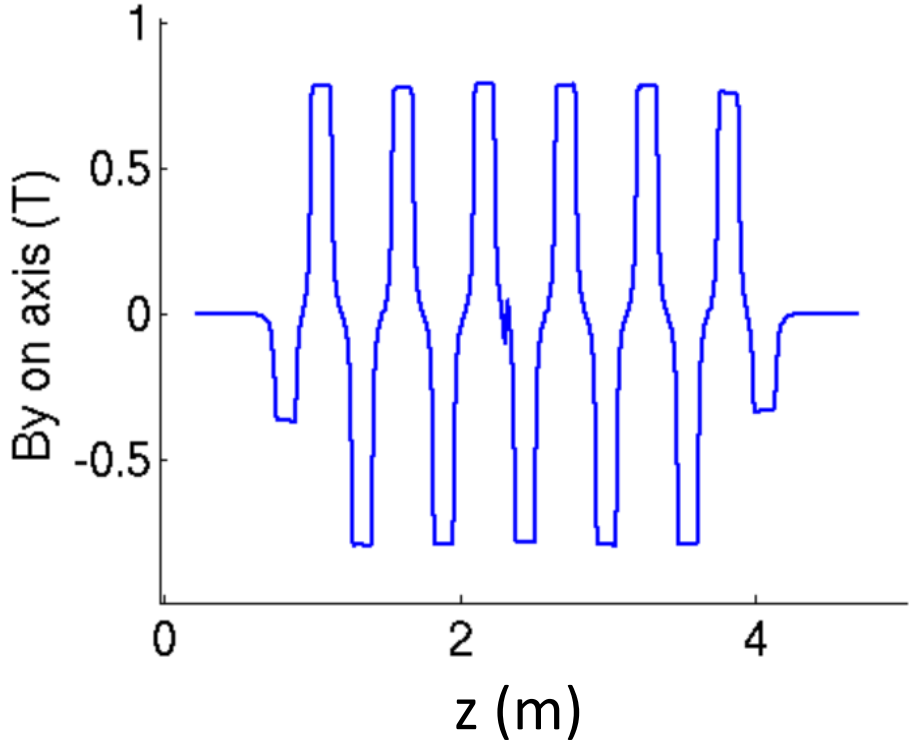
dx dy dxp dyp =

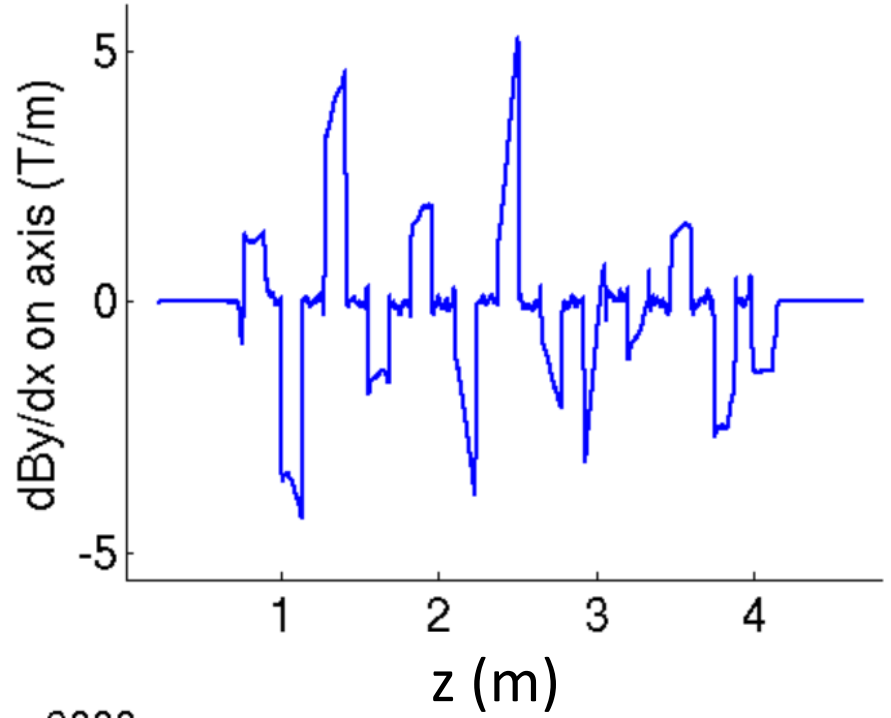
280 um 3 um 155 urad 1 urad

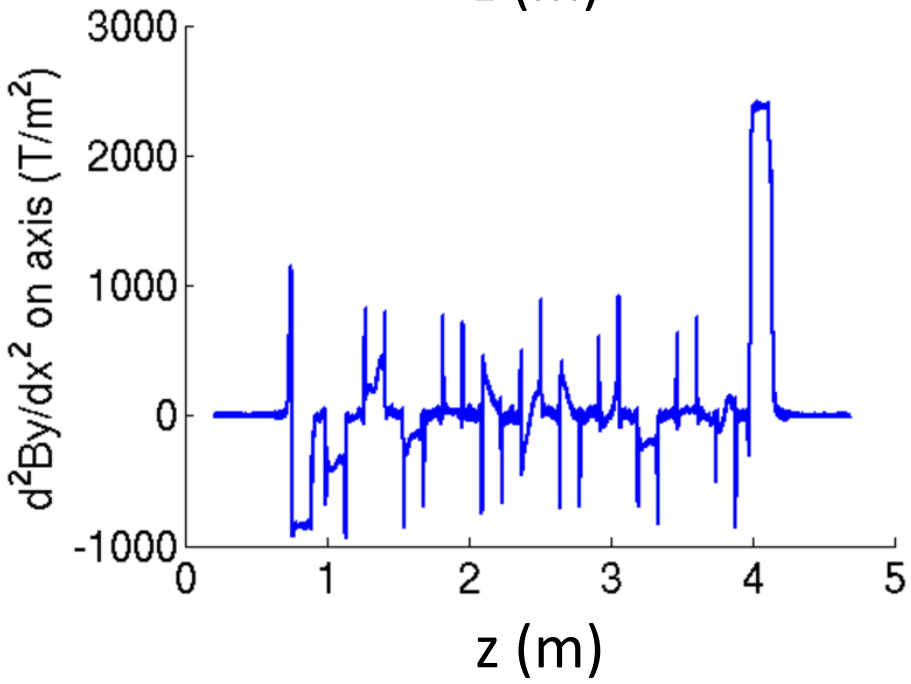
https://www-group.slac.stanford.edu/met/MagMeas/MAGDATA/LCLS-II/Undulator/X-LEAP-3/DATASET0002/Tuning/Z%20Scans/Run%20022/

~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Tuning/Z\ Scans/Run\ 022/

XLEAP wiggler 3 shimmed one end removed

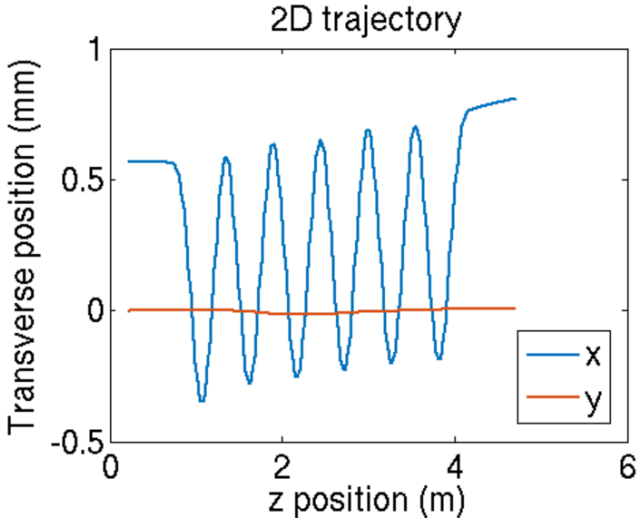






~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Tuning/Z\ Scans/Run\ 022/

XLEAP wiggler 3 shimmed



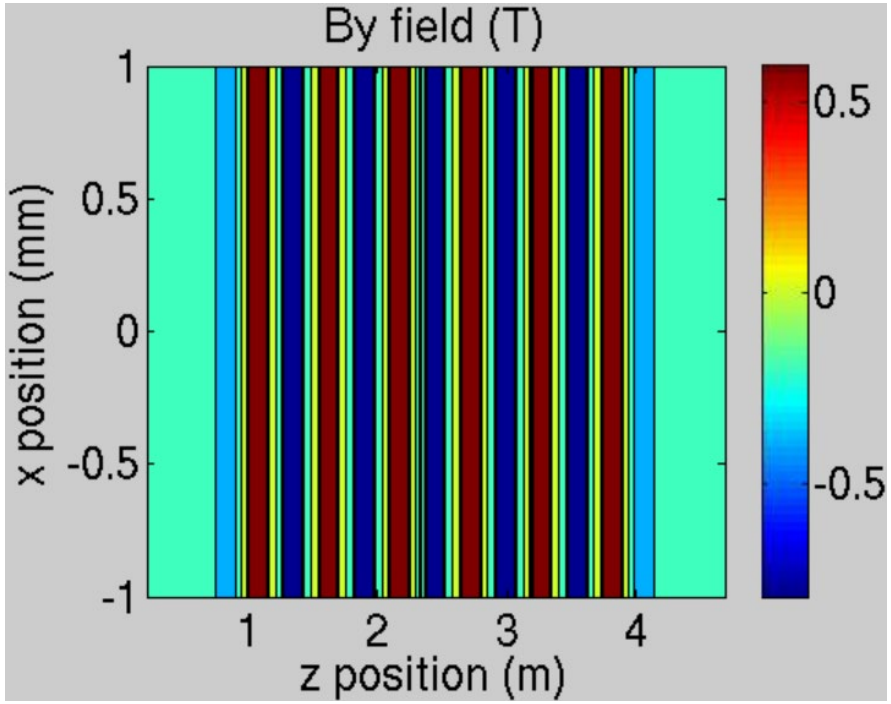
Transport matrix (4 GeV)

0.9087 4.3202

-0.0459 0.8821

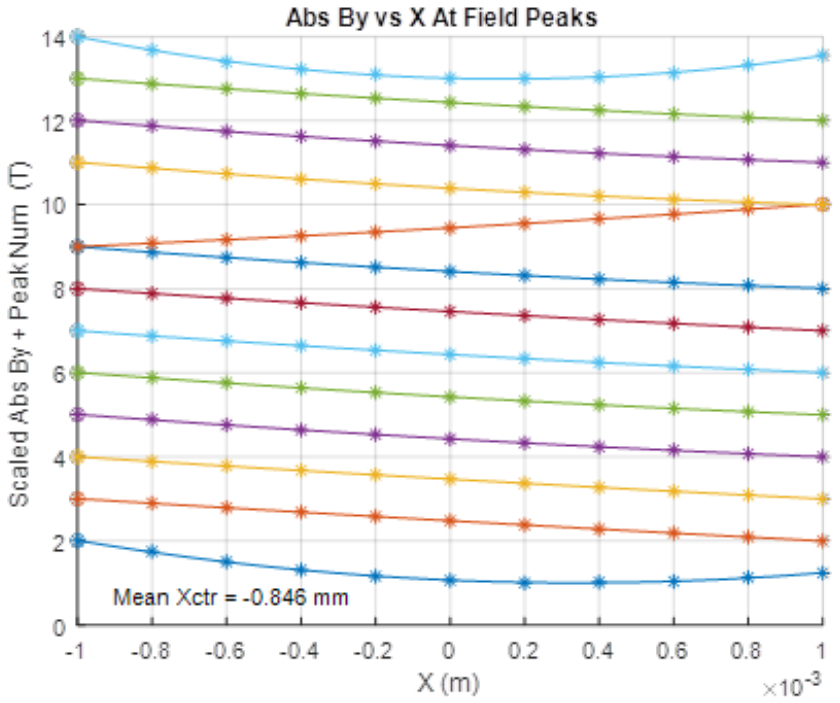
Focal length = -22 m

(Previously 3.8 m)



dx dy dxp dyp =

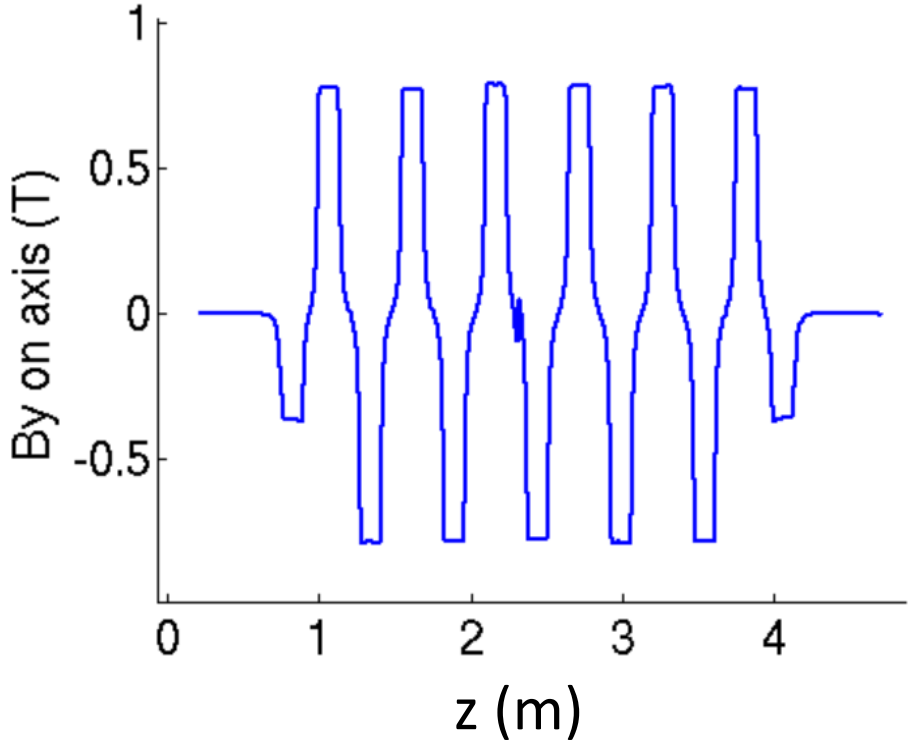
252 um 6 um 84 urad 2 urad

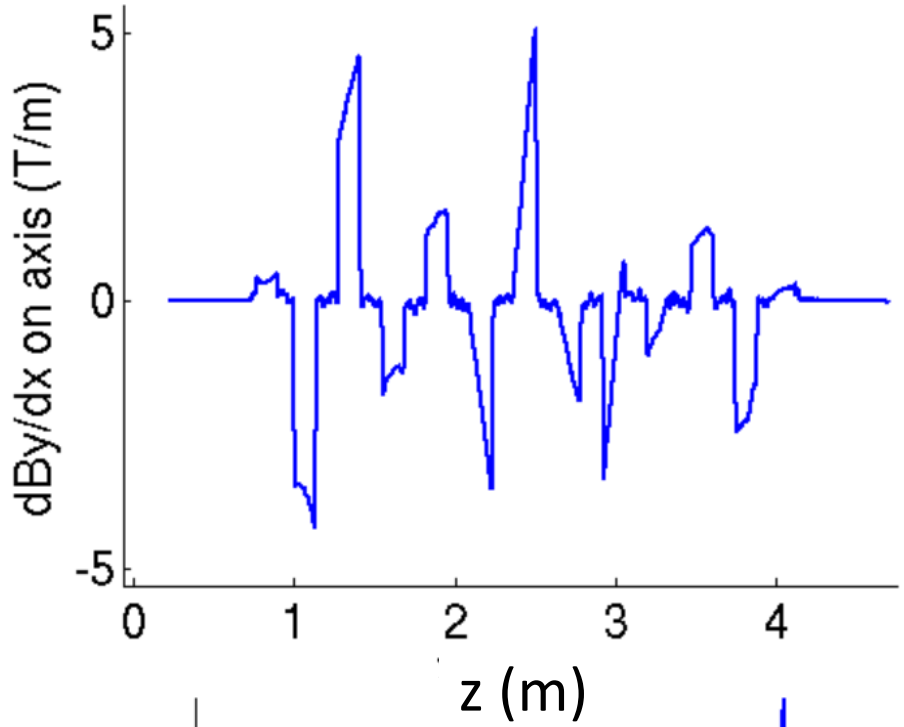


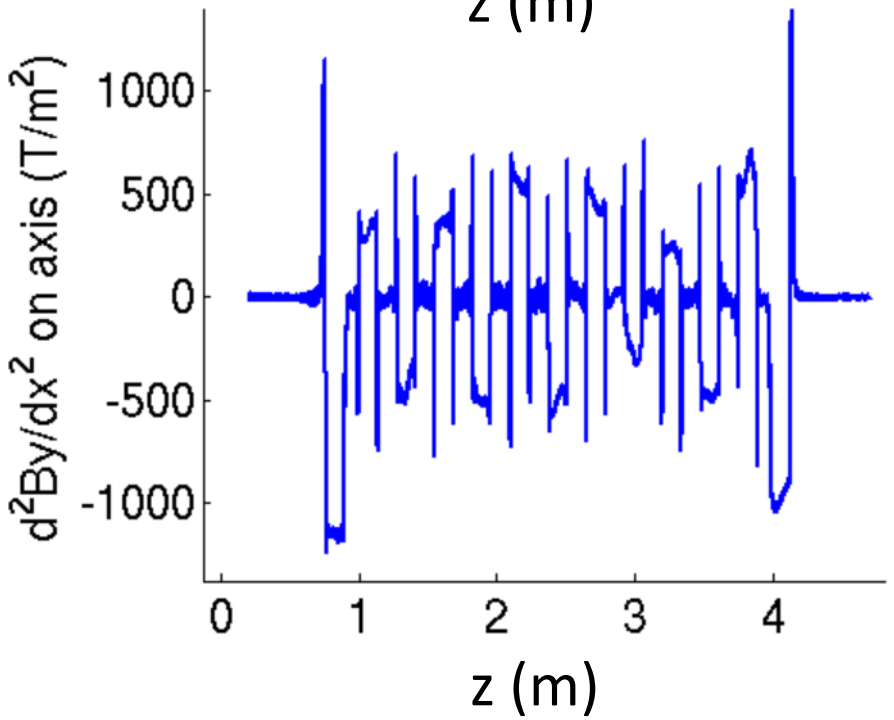
https://www-group.slac.stanford.edu/met/MagMeas/MAGDATA/LCLS-II/Undulator/X-LEAP-3/DATASET0002/Tuning/Z%20Scans/Run%20015/

~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Tuning/Z\ Scans/Run\ 015/

XLEAP wiggler 3 shimmed

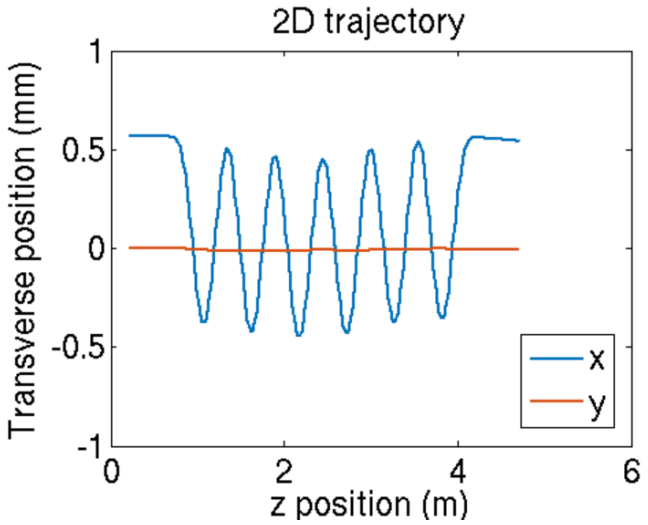






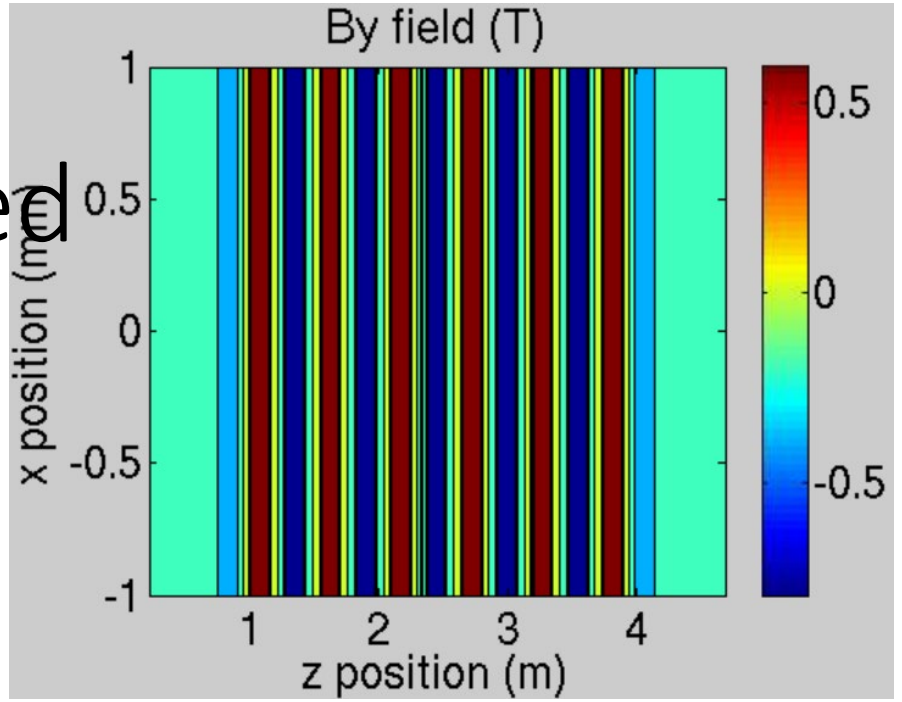
~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-3/DATASET0002/Tuning/Z\ Scans/Run\ 015/

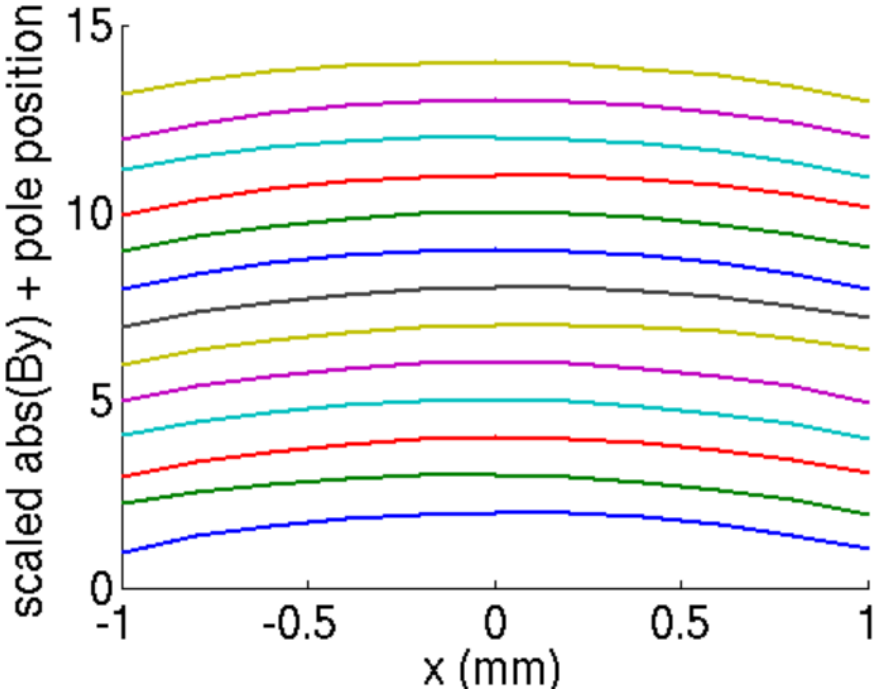
XLEAP wiggler 3 unshimmed



Transport matrix (4 GeV)
1.5607 5.5118
0.2648 1.5761

Focal length = 3.8 m

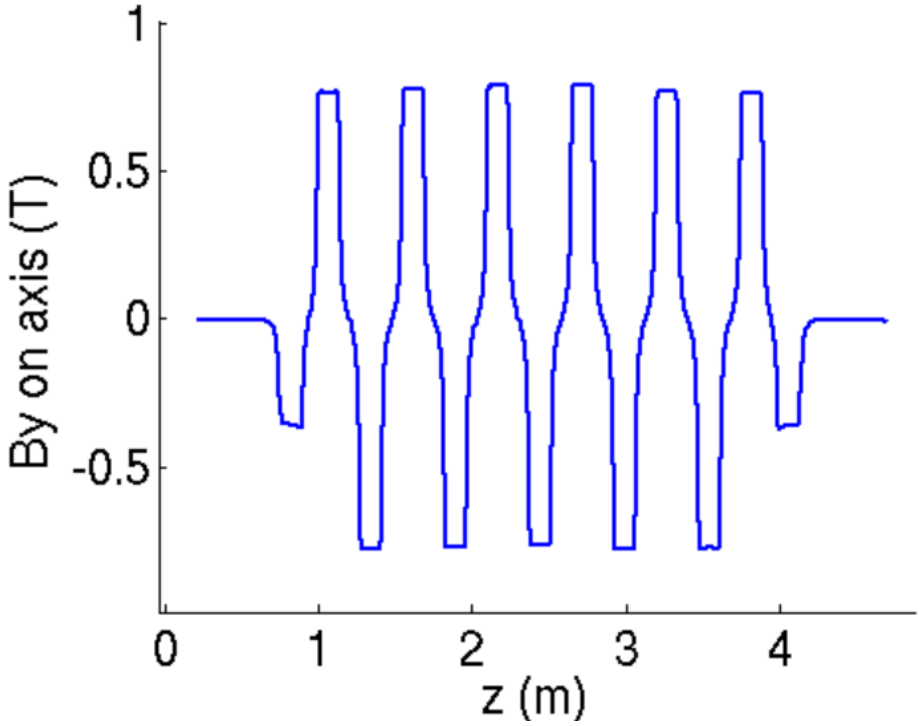


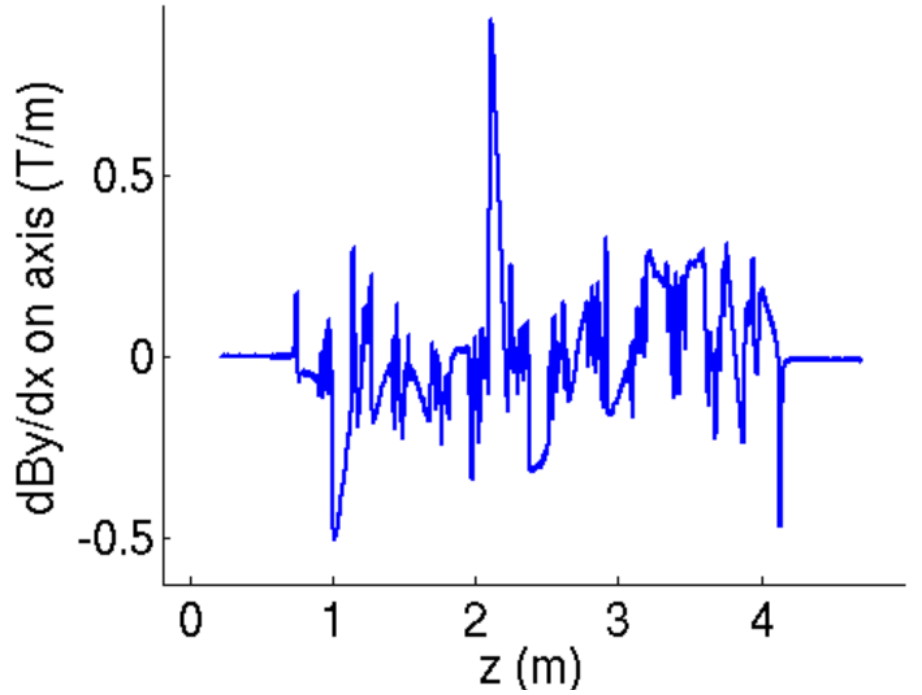


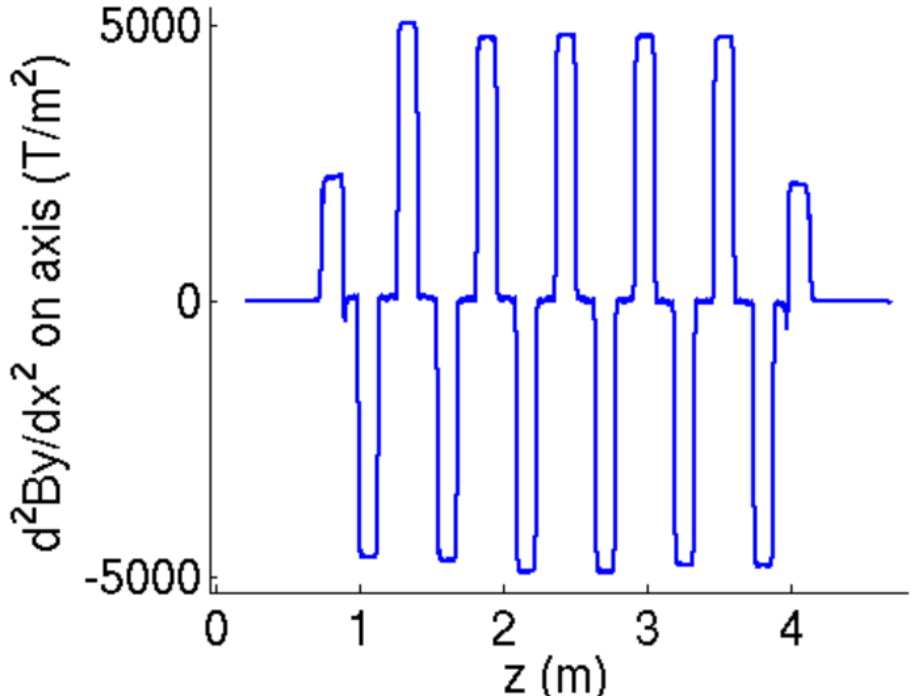
https://www-group.slac.stanford.edu/met/MagMeas/MAGDATA/LCLS-II/Undulator/X-LEAP-1/DATASET0001/Tuning/Z%20Scans/Run%20018/

~/xleap2/wiggler/xleap2-wiggler-data/SLAC/X-LEAP-1/DATASET0001/Tuning/Z\ Scans/Run\ 018/

XLEAP wiggler 3 shimmed one end removed







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