ap\_30MeV\_loose\_posP posP\_0 **Entries** 1999 300 Mean 0.001053 **RMS** 0.04636  $\chi^2$  / ndf 102.3 / 33 250 Constant  $246.4 \pm 8.0$  $-0.0003952 \pm 0.0007094$ Mean 200 Sigma  $0.03052 \pm 0.00070$ 150 100 50 \_0.6 -0.40.2 0.4 0.6

ap\_30MeV\_L1L1\_posP posP\_1 140 **Entries** 797 Mean -0.00186120 **RMS** 0.04271  $\chi^2$  / ndf 39.88 / 28  $102.7 \pm 5.1$ Constant 100 Mean  $-0.001301 \pm 0.001065$ Sigma  $0.02919 \pm 0.00098$ 80 60 40 20

0.2

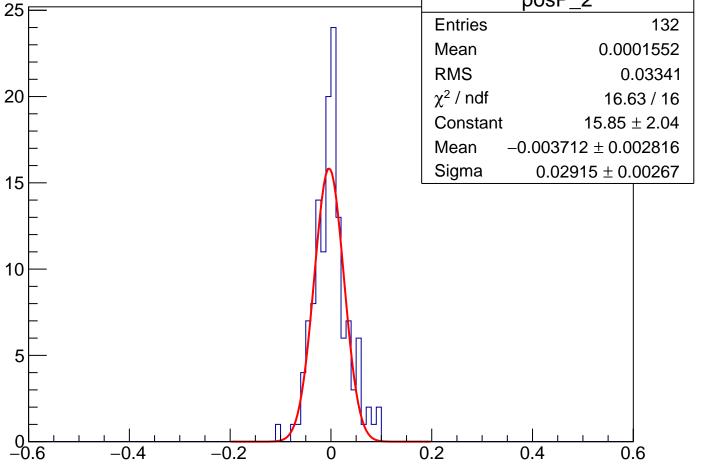
0.4

0.6

0.6 -0.6

-0.4

ap\_30MeV\_L1L2\_posP posP\_2 **Entries** 132 Mean 0.0001552 **RMS** 0.03341  $\chi^2$  / ndf 16.63 / 16  $15.85 \pm 2.04$ Constant Mean  $-0.003712 \pm 0.002816$ Sigma  $0.02915 \pm 0.00267$ 



ap\_30MeV\_L2L2\_posP posP\_3 **Entries** 90 Mean 0.002507 14 **RMS** 0.03749  $\chi^2$  / ndf 10.62 / 17 12  $10.55 \pm 1.77$ Constant Mean  $0.008646 \pm 0.003804$ 10 Sigma  $0.03059 \pm 0.00422$ 8 6 4 2 0.6 -0.6 -0.4-0.20.2 0.4 0.6

ap\_30MeV\_L1L1\_loose\_posP posP\_4 **Entries** 1148 180 Mean 0.0001834 **RMS** 0.04716 160  $\chi^2$  / ndf 66.73 / 32 140 Constant  $144.5 \pm 6.3$  $-0.0007207 \pm 0.0009080$ Mean 120 Sigma  $0.0296 \pm 0.0009$ 100 80 60 40 20 0.6 -0.6 -0.40.2 0.4 0.6

ap\_30MeV\_L1L2\_loose\_posP posP\_5 70 **Entries** 492 Mean 0.00196 60 **RMS** 0.05116  $\chi^2$  / ndf 28.66 / 25  $60.04 \pm 3.71$ Constant 50 Mean  $-0.001628 \pm 0.001455$ Sigma  $0.0306 \pm 0.0013$ 40 30 20 10 \_0.6 -0.40.2 0.4 0.6

ap\_30MeV\_L2L2\_loose\_posP posP\_6 **Entries** 198 Mean 0.001045 25 **RMS** 0.03778  $\chi^2$  / ndf 14.26 / 19 Constant  $21.57 \pm 2.34$ 20 Mean  $0.003367 \pm 0.002592$ Sigma  $0.03425 \pm 0.00283$ 15 10 5 0.6 -0.6 -0.20.2 -0.40.4 0.6

ap\_30MeV\_L1L2\_loose\_extrap\_posP posP\_7 **Entries** 202 Mean 0.003463 30 **RMS** 0.05146  $\chi^2$  / ndf 28.04 / 19 25 Constant  $20.81 \pm 2.31$  $-0.003262 \pm 0.002854$ Mean Sigma  $0.0334 \pm 0.0028$ 20 15 10 5 \_0.6 -0.20.2 -0.40.4 0.6

ap\_30MeV\_L2L2\_loose\_extrap\_posP posP\_8 **Entries** 114 18 Mean -0.0002812**RMS** 0.03746 16  $\chi^2$  / ndf 10.06 / 19 Constant  $13.29 \pm 1.95$ 14 Mean  $0.003128 \pm 0.003121$ Sigma  $0.03135 \pm 0.00353$ 12 10 8 6 4 2 \_0.6 -0.4-0.20.2 0.4 0.6