ap\_35MeV\_loose\_posP posP\_0 **Entries** 3466 450 Mean -0.002589**RMS** 0.04116 400  $\chi^2$  / ndf 164.2 / 32 Constant  $434.3 \pm 10.6$ 350  $-0.001875 \pm 0.000528$ Mean Sigma  $0.03024 \pm 0.00051$ 300 250 200 150 100 50 0<u></u> −0.6 -0.40.2 0.4 0.6

ap\_35MeV\_L1L1\_posP posP\_1 200 **Entries** 1352 Mean -0.003178180 **RMS** 0.04022  $\chi^2$  / ndf 57.45 / 26 160 Constant  $180.3 \pm 6.8$ 140 Mean  $-0.001923 \pm 0.000796$ Sigma  $0.02854 \pm 0.00073$ 120 100 80 60 40 20 0.6 -0.6

0.2

0.4

0.6

-0.4

ap\_35MeV\_L1L2\_posP posP\_2 **Entries** 330 50 Mean -0.002949**RMS** 0.03051  $\chi^2$  / ndf 21.04 / 18 40  $50.67 \pm 3.78$ Constant Mean  $-0.002859 \pm 0.001401$ Sigma  $0.02434 \pm 0.00118$ 30 20 10 0.6 -0.6 -0.2-0.40.2 0.4 0.6

ap\_35MeV\_L2L2\_posP posP\_3 **Entries** 181 Mean 0.0014 25 **RMS** 0.03592  $\chi^2$  / ndf 22.26 / 18  $21.85 \pm 2.48$ Constant 20 Mean  $0.002643 \pm 0.002325$ Sigma  $0.02903 \pm 0.00239$ 15 10 5 0.6 -0.6 -0.4-0.20.2 0.4 0.6

ap\_35MeV\_L1L1\_loose\_posP posP\_4 **Entries** 1851 250 Mean -0.002267**RMS** 0.04295  $\chi^2$  / ndf 88.91 / 30 200  $241 \pm 7.9$ Constant Mean  $-0.001487 \pm 0.000698$ Sigma  $0.02904 \pm 0.00065$ 150 100 50 0.6 -0.6 -0.40.2 0.4 0.6

ap\_35MeV\_L1L2\_loose\_posP posP\_5 **Entries** 860 Mean -0.00351100 **RMS** 0.03941  $\chi^2$  / ndf 57.25 / 30 Constant  $99.93 \pm 4.97$ 80 Mean  $-0.002938 \pm 0.001131$ Sigma  $0.03205 \pm 0.00112$ 60 40 20 0.6 -0.6 -0.40.2 0.4 0.6

ap\_35MeV\_L2L2\_loose\_posP posP\_6 **Entries** 410 60 Mean -0.002985**RMS** 0.03635 50  $\chi^2$  / ndf 24.42 / 20 Constant  $51.25 \pm 3.70$ Mean  $-0.001859 \pm 0.001548$ 40 Sigma  $0.03005 \pm 0.00156$ 30 20 10 0.6 -0.6 -0.40.2 0.4 0.6

ap\_35MeV\_L1L2\_loose\_extrap\_posP posP\_7 70 **Entries** 449 Mean -0.000969**RMS** 0.03415 60  $\chi^2$  / ndf 32.67 / 22 Constant  $63.48 \pm 4.07$ 50  $-0.002533 \pm 0.001299$ Mean Sigma  $0.02618 \pm 0.00109$ 40 30 20 10 -0.4-0.20.2 0.4 0.6

ap\_35MeV\_L2L2\_loose\_extrap\_posP posP\_8 **Entries** 263 35 Mean -0.00255**RMS** 0.03664  $\chi^2$  / ndf 23.22 / 18 30 Constant  $30.9 \pm 2.9$ Mean  $-0.002735 \pm 0.002049$ 25 Sigma  $0.03106 \pm 0.00218$ 20 15 10 5 -0.20.2 -0.40.4 0.6