ap_50MeV_loose_posP posP_0 700 **Entries** 4732 Mean -0.004738600 **RMS** 0.04029 χ^2 / ndf 211 / 33 Constant 600.4 ± 12.6 500 -0.002394 ± 0.000446 Mean Sigma 0.02995 ± 0.00044 400 300 200 100 -0.40.2 0.4 0.6

ap_50MeV_L1L1_posP posP_1 **Entries** 1999 300 Mean -0.003023**RMS** 0.03897 χ^2 / ndf 80.4 / 32 250 Constant 278.3 ± 8.7 Mean -0.001629 ± 0.000627 Sigma 0.02739 ± 0.00058 200 150 100 50 0.6 -0.6 -0.40.2 0.4 0.6

ap_50MeV_L1L2_posP posP_2 50 **Entries** 331 Mean -0.003417**RMS** 0.03192 χ^2 / ndf 26.18 / 17 40 41.39 ± 3.07 Constant Mean -0.003419 ± 0.001749 Sigma 0.02941 ± 0.00140 30 20 10 0.6 -0.6 -0.4-0.20.2 0.4 0.6

ap_50MeV_L2L2_posP posP_3 **Entries** 326 45 Mean -0.001366**RMS** 0.03422 40 χ^2 / ndf 21.22 / 21 Constant 41.1 ± 3.3 35 Mean -0.0008666 ± 0.0017692 Sigma 0.02962 ± 0.00163 30 25 20 15 10 5 -0.2-0.40.2 0.4 0.6

ap_50MeV_L1L1_loose_posP posP_4 **Entries** 2586 Mean -0.004585350 **RMS** 0.04291 χ^2 / ndf 132 / 32 300 Constant 338.5 ± 9.6 Mean -0.002002 ± 0.000582 250 Sigma 0.02879 ± 0.00057 200 150 100 50 _0.6 -0.40.2 0.4 0.6

ap_50MeV_L1L2_loose_posP posP_5 **Entries** 895 120 Mean -0.007176**RMS** 0.03719 χ^2 / ndf 46.05 / 25 100 106.8 ± 5.0 Constant Mean -0.004555 ± 0.001095 Sigma 80 0.03168 ± 0.00100 60 40 20 0.6 -0.6 -0.40.2 0.4 0.6

ap_50MeV_L2L2_loose_posP posP_6 **Entries** 663 90 Mean -0.003465**RMS** 0.0386 80 χ^2 / ndf 39.38 / 24 Constant 78.42 ± 4.29 70 Mean -0.0006371 ± 0.0012750 Sigma 0.0317 ± 0.0012 60 50 40 30 20 10 _0.6 -0.6 -0.40.2 0.4 0.6

ap_50MeV_L1L2_loose_extrap_posP posP_7 **Entries** 515 70 Mean -0.005036**RMS** 0.03135 χ^2 / ndf 31.62 / 17 60 64.49 ± 3.96 Constant Mean -0.004779 ± 0.001369 50 Sigma 0.02993 ± 0.00124 40 30 20 10 -0.20.2 -0.40.4 0.6

ap_50MeV_L2L2_loose_extrap_posP posP_8 70 **Entries** 488 Mean -0.004143**RMS** 0.03875 60 χ^2 / ndf 35.5 / 24 Constant 56.77 ± 3.76 50 Mean -0.001835 ± 0.001501 Sigma 0.03182 ± 0.00149 40 30 20 10 -0.40.2 0.4 0.6