

PhiThetaMassPip Proj_04 8 **Entries** 4 χ^2 / ndf 40.08 / 0 Norm 138.7 ± 0.5 7 Mean 0.989 ± 0.093 σ -19.11 ± 0.11 6 Pol Amp 1.001 ± 0.013 const term -43.06 ± 0.39 5 linear term -39.7 ± 0.3 quad term -35.71 ± 0.24 4 cube term -31.02 ± 0.16 3 2 8.8 0.85 0.9 0.95 1.05 1.15 1.2

PhiThetaMassPip Proj_05 **Entries** 3000 χ^2 / ndf 4.631e-14 / 0 Norm 3136 ± 52477.7 Mean 0.9973 ± 0.0930 2500 σ 0.009805 ± 0.130084 Pol Amp 375.8 ± 1455.7 0.726 ± 0.010 const term 2000 linear term 0.2379 ± 0.0106 quad term -0.2759 ± 0.0111 -0.8168 ± 0.0117 cube term 1500 1000 500

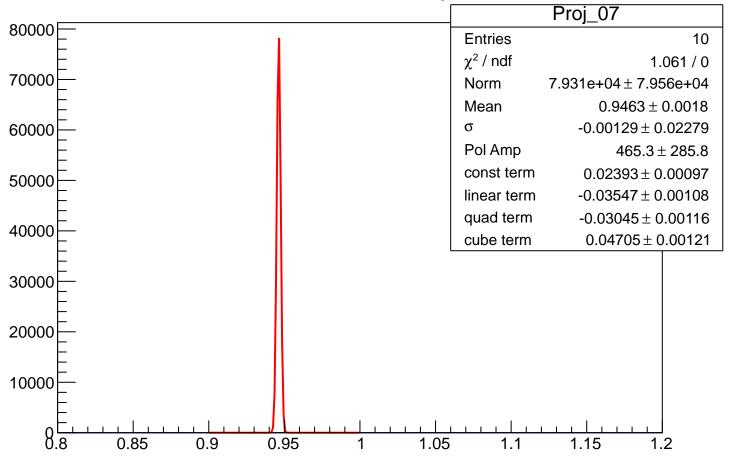
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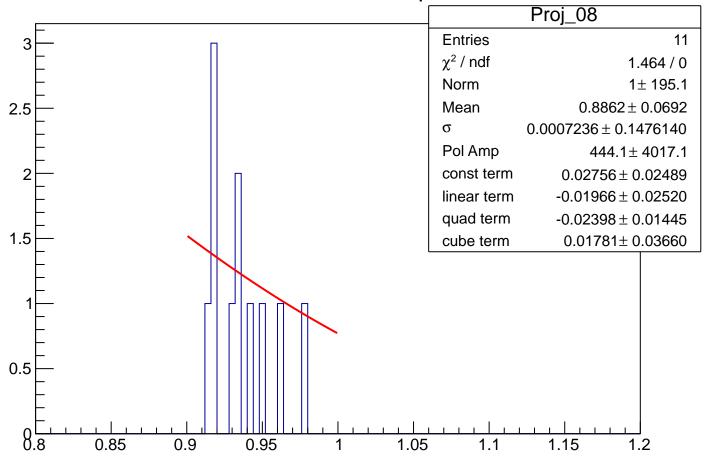
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PhiThetaMassPip Proj_09 **Entries** 2 χ^2 / ndf 7.235e-08 / 0 Norm 65.63 ± 6.96 0.9387 ± 0.0750 Mean σ 74.31 ± 1.41 Pol Amp 1.182 ± 0.128 8.0 const term -39.82 ± 1.38 -21.63 ± 1.38 linear term quad term -4.609 ± 1.385 0.6 11.47 ± 1.39 cube term 0.4 0.2 8.8

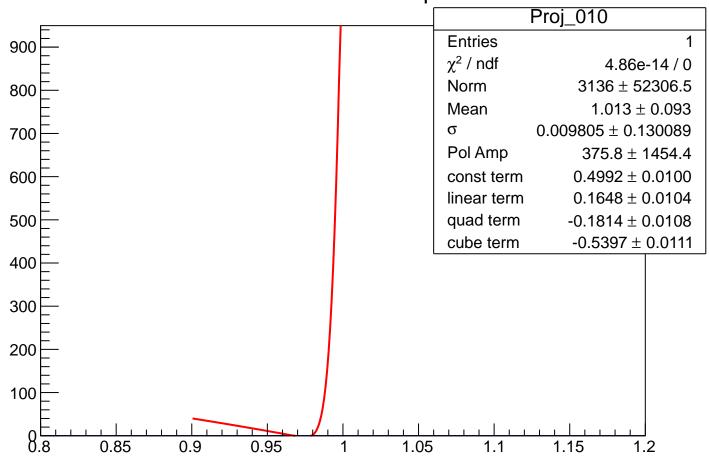
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PhiThetaMassPip Proj_015 **Entries** 3000 χ^2 / ndf 4.466e-14 / 0 Norm 3136 ± 52603.4 Mean 0.9853 ± 0.0932 2500 σ 0.009805 ± 0.130080 Pol Amp 375.8 ± 1456.6 0.8928 ± 0.0101 const term 2000 linear term 0.2908 ± 0.0107 quad term -0.3509 ± 0.0114 -1.035 ± 0.012 cube term 1500 1000 500

1.05

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PhiThetaMassPip Proj_016 **Entries** 3000 χ^2 / ndf 4.254e-14 / 0 Norm 3136 ± 52767.2 Mean 0.9693 ± 0.0935 2500 σ 0.009805 ± 0.130074 Pol Amp 375.8 ± 1457.9 1.111 ± 0.010 const term 2000 linear term 0.359 ± 0.011 quad term -0.4566 ± 0.0118 -1.341 ± 0.013 1500 cube term 1000 500 8.8

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PhiThetaMassPip Proj_018 **Entries** 3000 χ^2 / ndf 4.466e-14 / 0 Norm 3136 ± 52603.4 Mean 0.9853 ± 0.0932 2500 σ 0.009805 ± 0.130080 Pol Amp 375.8 ± 1456.6 0.8928 ± 0.0101 const term 2000 linear term 0.2908 ± 0.0107 quad term -0.3509 ± 0.0114 -1.035 ± 0.012 cube term 1500 1000 500

1.05

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PhiThetaMassPip Proj_019 **Entries** 8 3 χ^2 / ndf 1.492 / 0Norm 53.71 ± 25.80 0.9355 ± 0.0755 Mean 2.5 σ -13.97 ± 1.42 Pol Amp 1.046 ± 0.964 2 const term -35.62 ± 1.42 -21.73 ± 3.76 linear term quad term -5.572 ± 3.029 1.5 13.08 ± 2.23 cube term 0.5 8.8

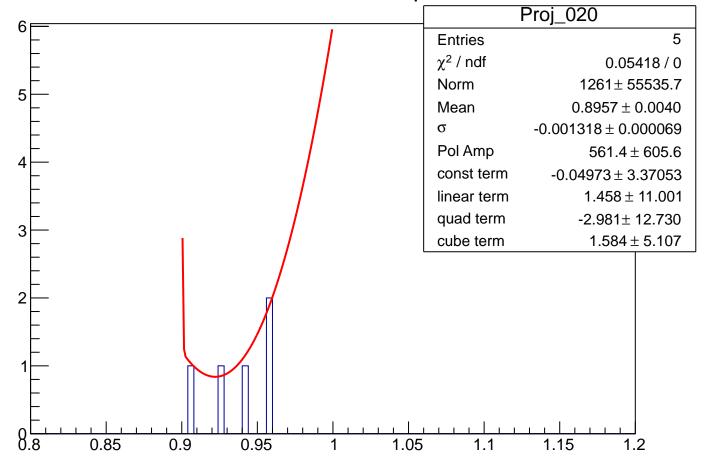
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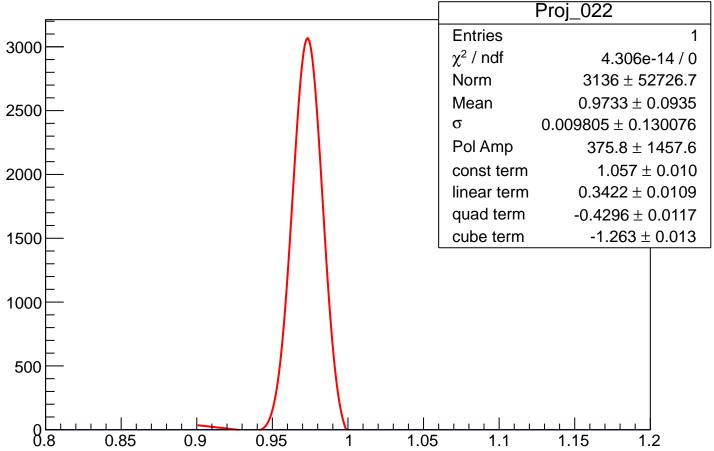
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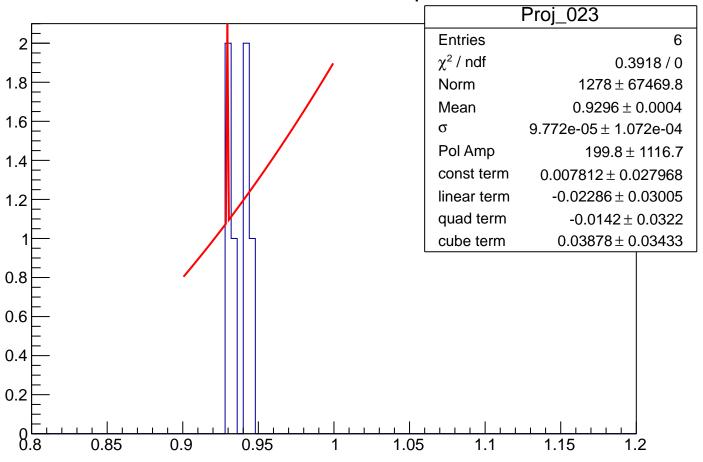
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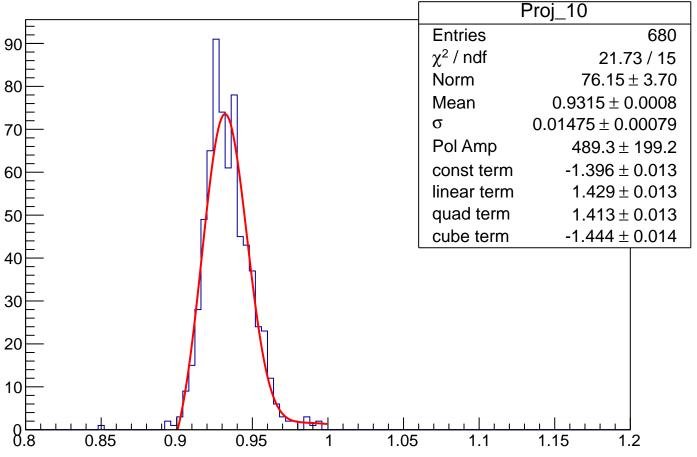
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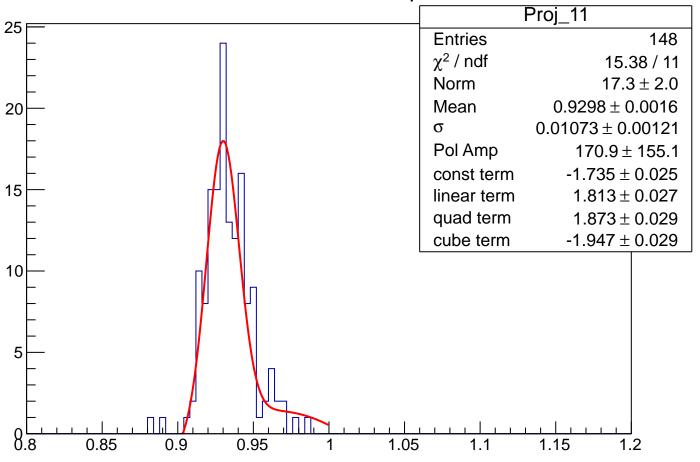
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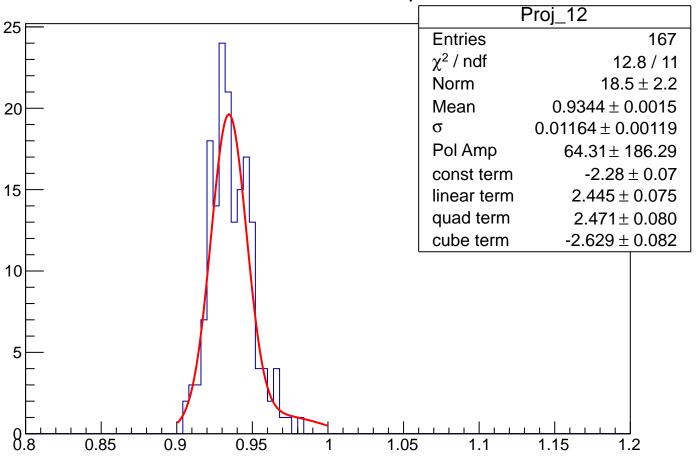




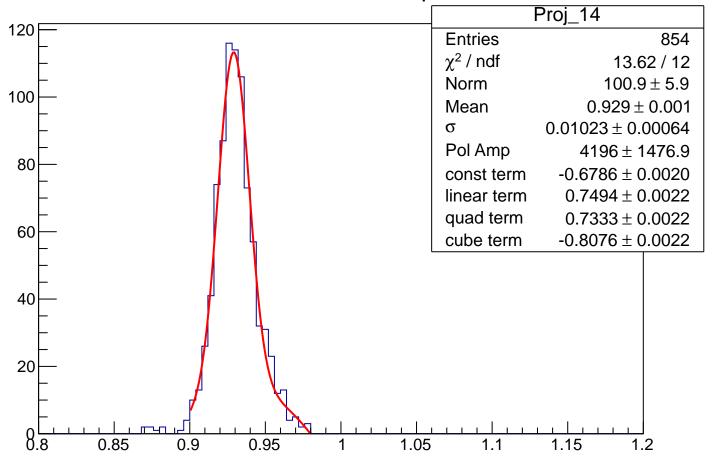


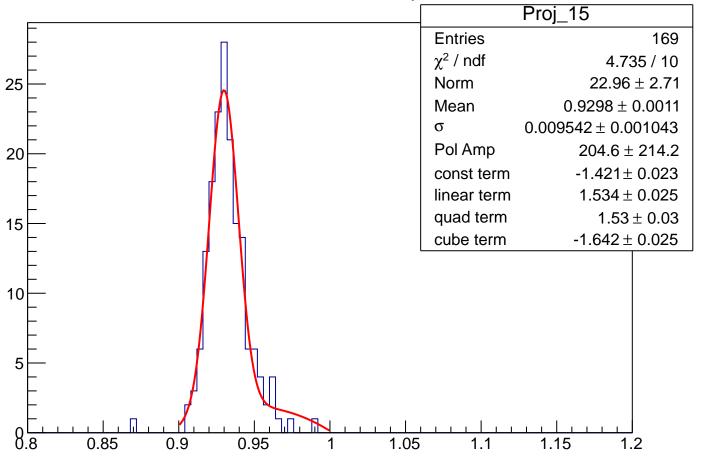




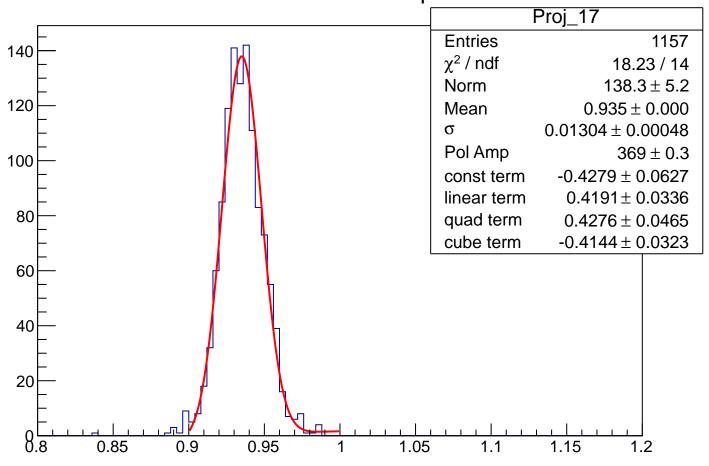


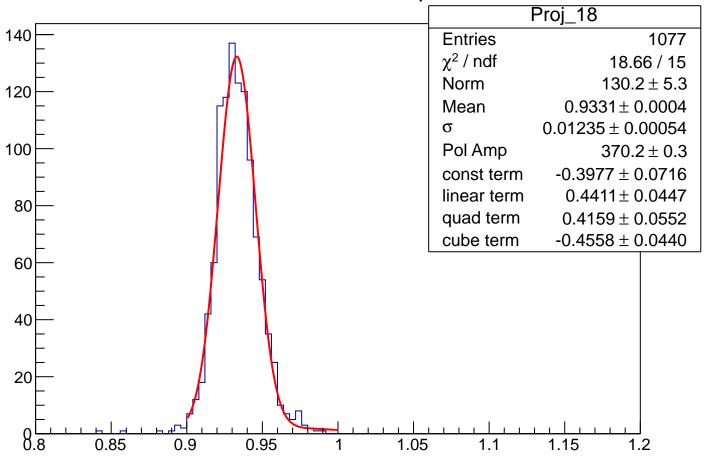
PhiThetaMassPip Proj_13 **Entries** 760 χ^2 / ndf 14.53 / 11 100 Norm 101 ± 5.3 Mean 0.9305 ± 0.0005 σ 0.01025 ± 0.00048 80 Pol Amp 367 ± 105.8 const term -3.647 ± 0.018 linear term 3.919 ± 0.022 60 quad term 3.93 ± 0.02 cube term -4.204 ± 0.021 40 20 8.8 0.85 0.9 0.95 1.05 1.15 1.2

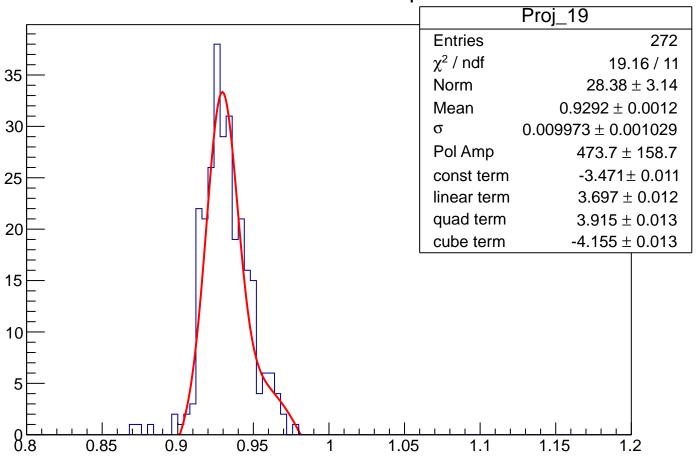




PhiThetaMassPip Proj_16 **Entries** 242 χ^2 / ndf 14.21 / 10 Norm 24.95 ± 2.75 25 0.9378 ± 0.0012 Mean σ 0.01123 ± 0.00137 Pol Amp 183.6 ± 126.1 20 const term -2.112 ± 0.031 linear term 2.133 ± 0.034 quad term 2.449 ± 0.037 15 cube term -2.455 ± 0.040 10 5 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2







PhiThetaMassPip Proj_110 **Entries** 91 14 χ^2 / ndf 8.994 / 10 Norm 8.924 ± 1.615 12 0.9315 ± 0.0024 Mean σ 0.01186 ± 0.00233 Pol Amp 89.01 ± 105.56 10 const term -2.463 ± 0.044 linear term 2.578 ± 0.048 8 quad term 2.758 ± 0.051 cube term -2.87 ± 0.05 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

PhiThetaMassPip Proj_111 **Entries** 456 χ^2 / ndf 12.99 / 13 Norm 51.26 ± 3.20 50 Mean 0.9305 ± 0.0010 σ 0.01361 ± 0.00077 Pol Amp 393.9 ± 238.9 40 const term -1.681 ± 0.014 linear term 1.787 ± 0.015 quad term 1.739 ± 0.016 30 cube term -1.846 ± 0.016 20 10

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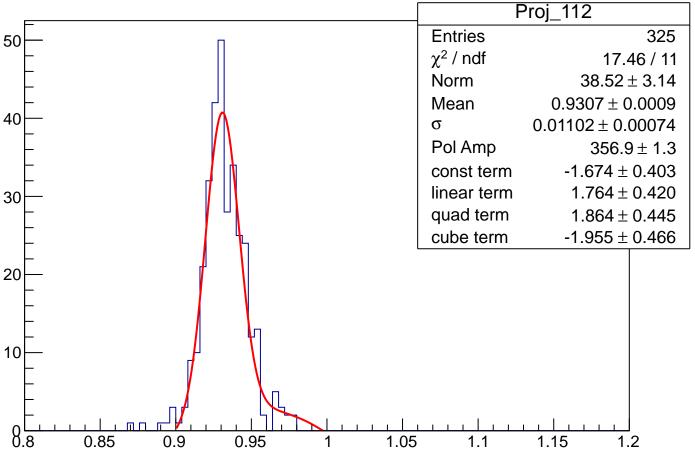
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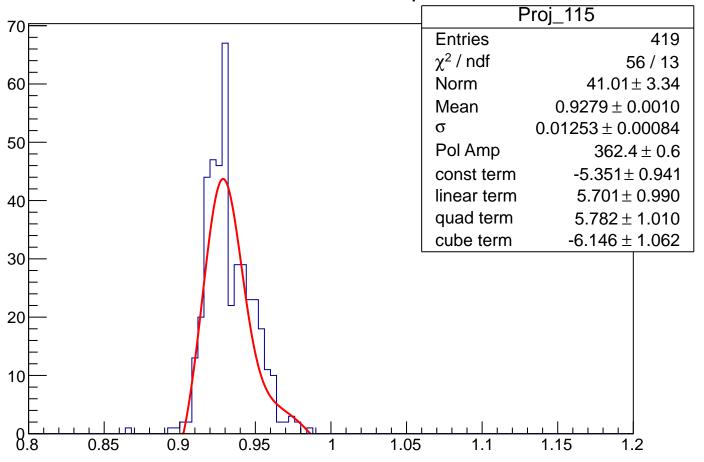
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PhiThetaMassPip Proj_113 **Entries** 85 12 χ^2 / ndf 15.15 / 9 Norm 20.14 ± 31.41 0.9318 ± 0.0003 Mean 10 σ 0.001351 ± 0.000821 Pol Amp 19.1 ± 36.5 8 const term -0.4492 ± 1.0452 2.035 ± 3.959 linear term quad term 1.302 ± 2.617 6 cube term -2.948 ± 5.658 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

PhiThetaMassPip Proj_114 **Entries** 107 χ^2 / ndf 22.4 / 10 12 Norm 3723 ± 2471.5 Mean 0.9309 ± 0.0010 σ -0.0002564 ± 0.0002943 10 Pol Amp 12.24 ± 13.62 const term -8.487 ± 11.067 8 linear term 12.16 ± 15.45 quad term 10.38 ± 13.33 -14.15 ± 17.82 cube term 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2



PhiThetaMassPip Proj_116 **Entries** 435 60 χ^2 / ndf 13.34 / 12 Norm 49.4 ± 3.4 Mean 0.9288 ± 0.0010 50 σ 0.01214 ± 0.00080 Pol Amp 534.4 ± 341.2 const term -1.637 ± 0.012 40 linear term 1.748 ± 0.013 quad term 1.763 ± 0.014 cube term -1.877 ± 0.014 30 20 10

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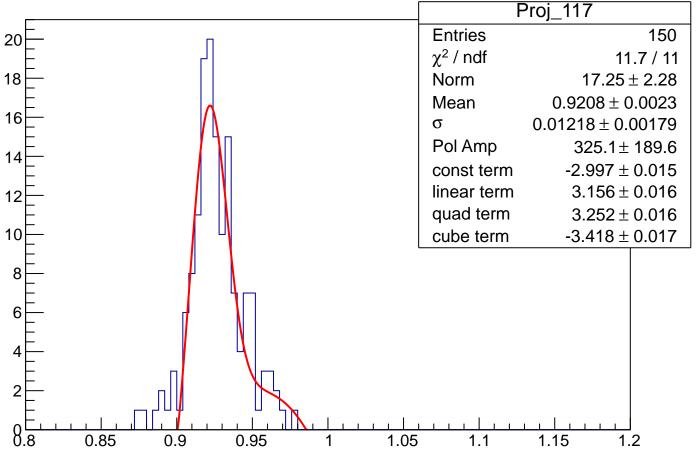
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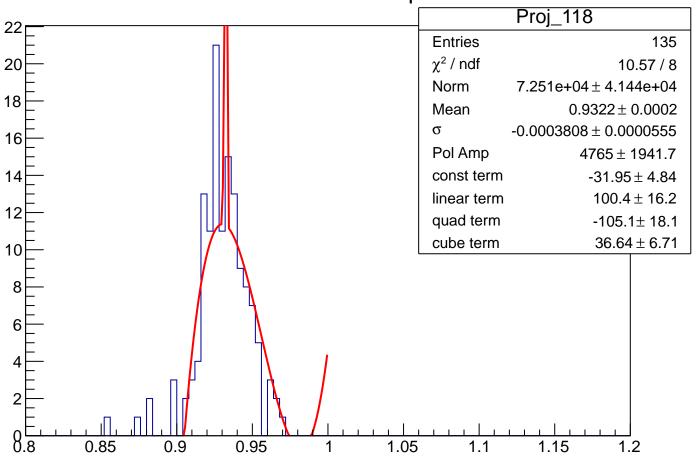
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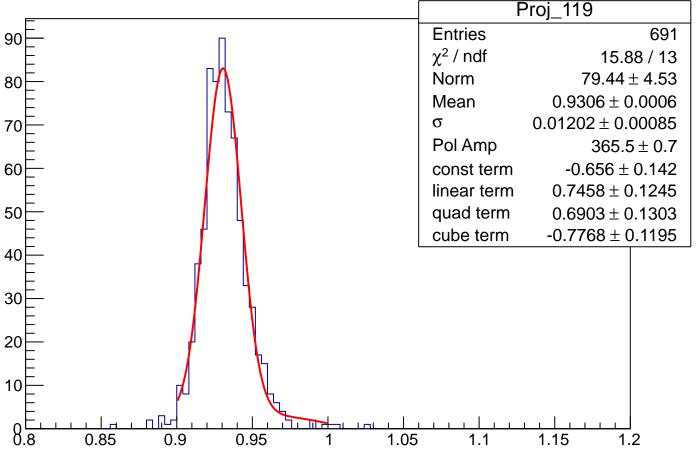
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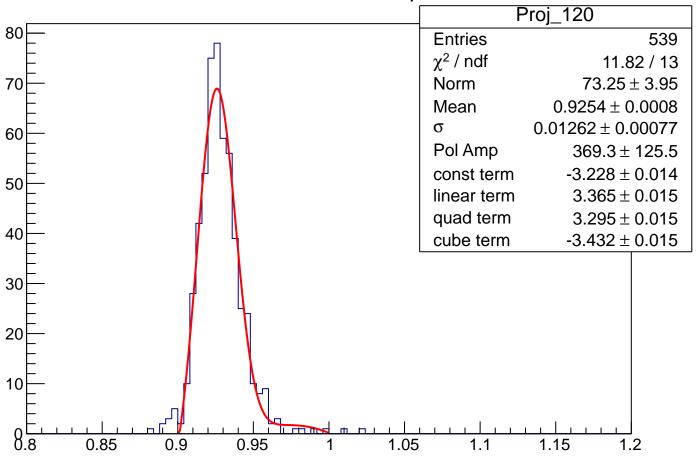
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PhiThetaMassPip Proj_121 **Entries** 113 18 χ^2 / ndf 8.199 / 13 Norm 11.81 ± 1.60 16 0.9283 ± 0.0018 Mean σ 0.01466 ± 0.00167 14 Pol Amp 1.915 ± 105.242 12 const term -6.428 ± 50.381 linear term 0.1573 ± 16.8011 10 quad term 3.598 ± 19.211 cube term 3.597 ± 57.512 8 6 4 2

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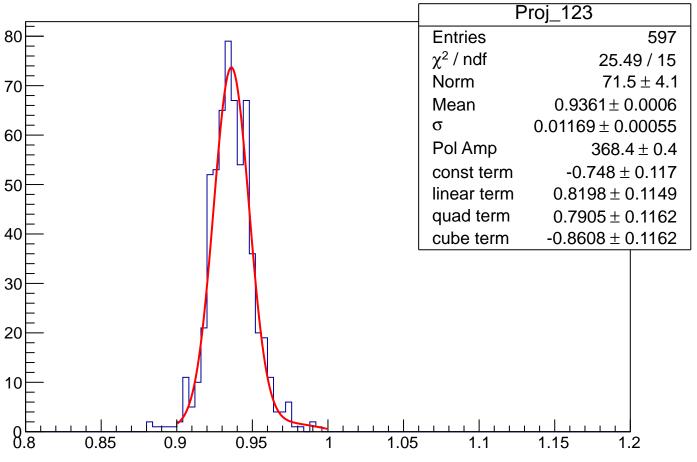
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PhiThetaMassPip Proj_122 **Entries** 130 16 χ^2 / ndf 17.56 / 12 Norm 13.34 ± 2.10 14 Mean 0.9395 ± 0.0006 σ 0.00952 ± 0.00106 12 Pol Amp 351.7 ± 2.6 const term 0.02365 ± 0.69204 10 0.05279 ± 0.73269 linear term quad term -0.123 ± 0.775 8 0.04854 ± 0.81704 cube term 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2



PhiThetaMassPip Proj_20 **Entries** 906 140 χ^2 / ndf 36.1 / 13 Norm 125.9 ± 5.8 Mean 0.9309 ± 0.0004 120 σ 0.01083 ± 0.00049 Pol Amp 370.3 ± 0.3 100 const term -0.3608 ± 0.0861 linear term 0.3586 ± 0.0724 80 quad term 0.366 ± 0.080 -0.3589 ± 0.0693 cube term 60 40 20

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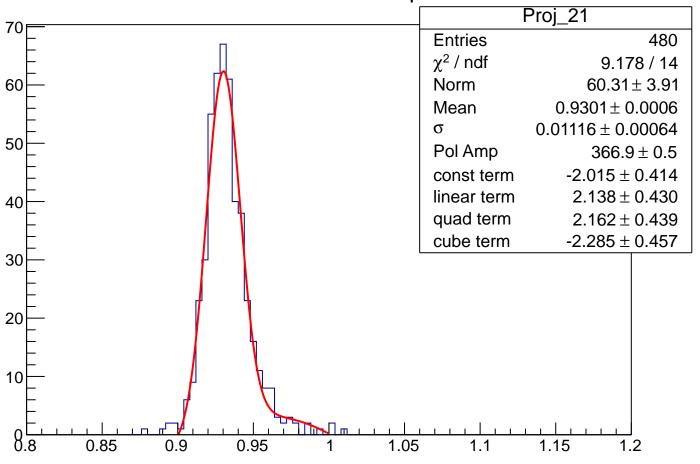
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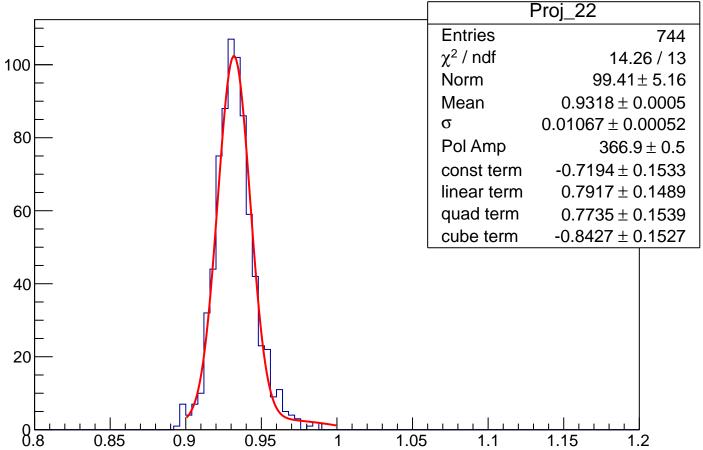
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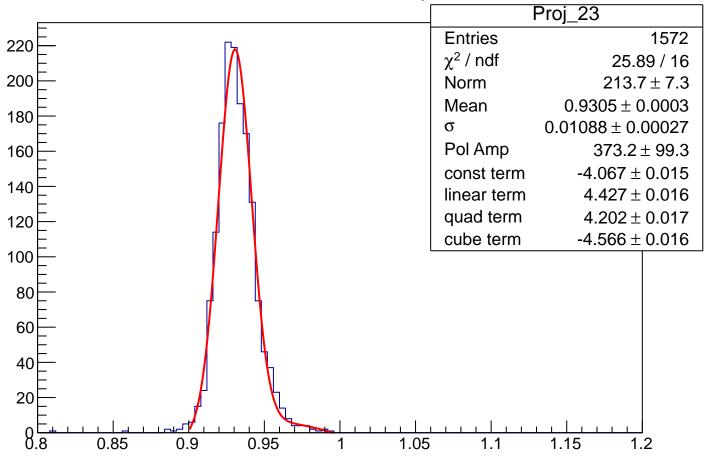
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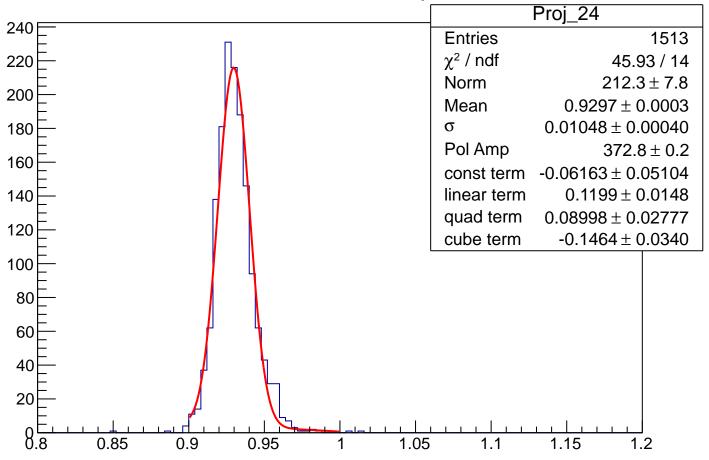
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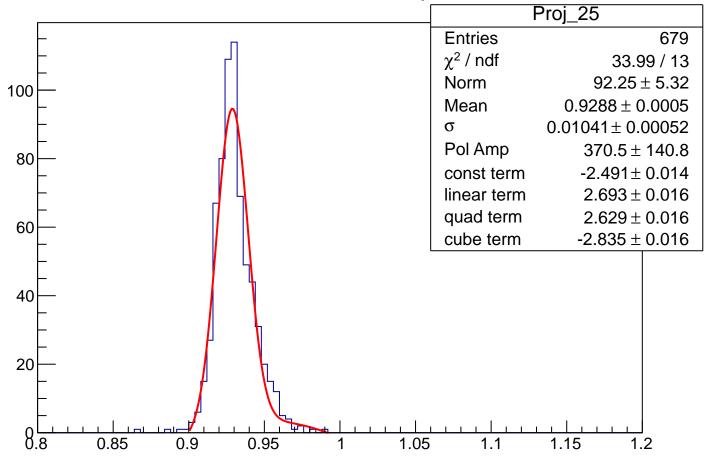
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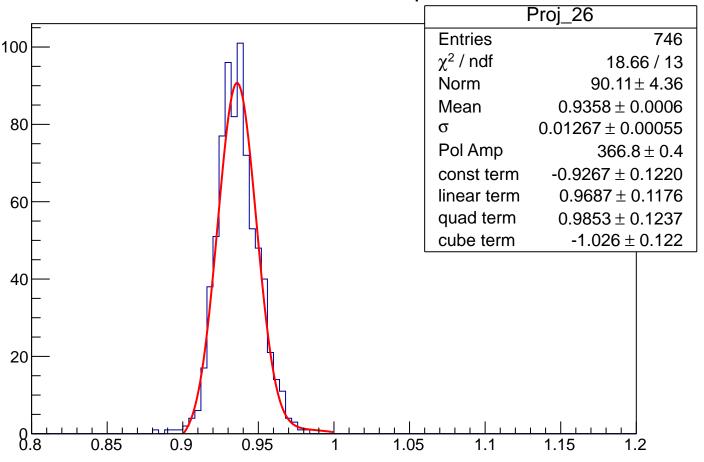


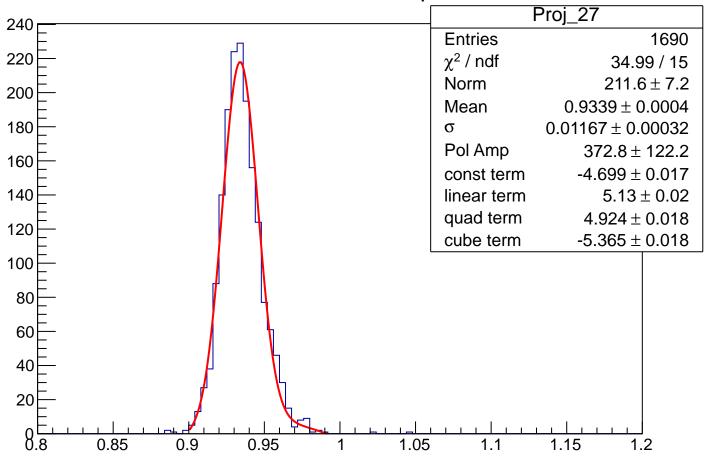


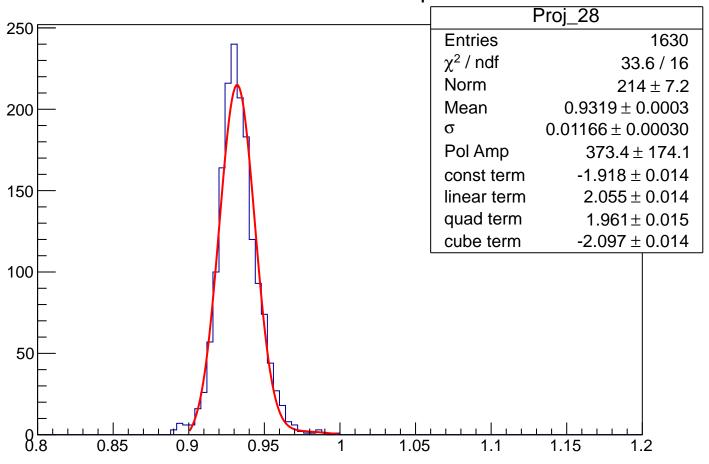


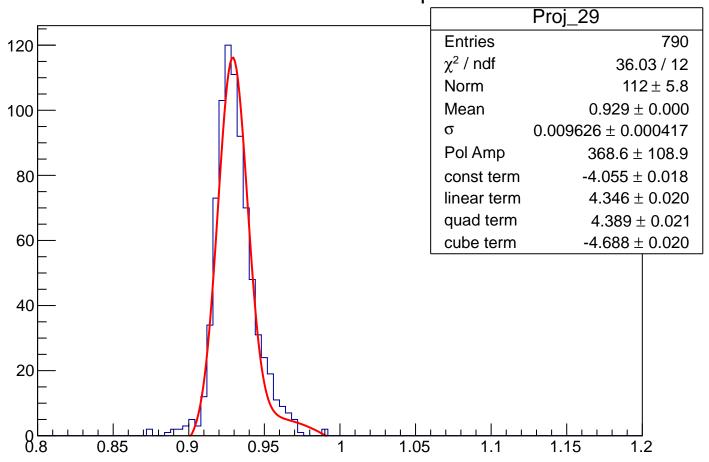


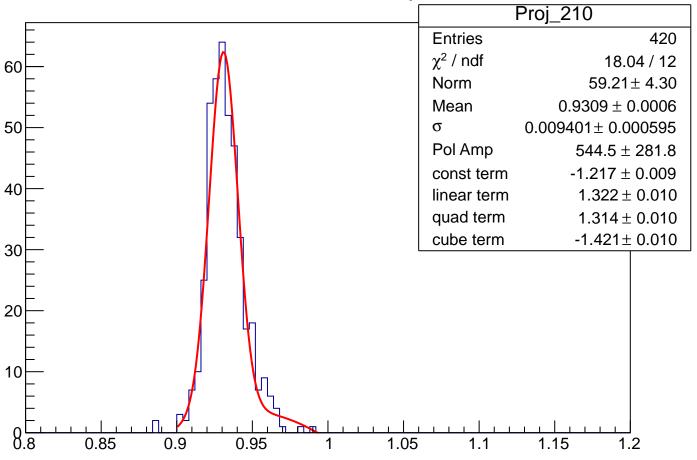


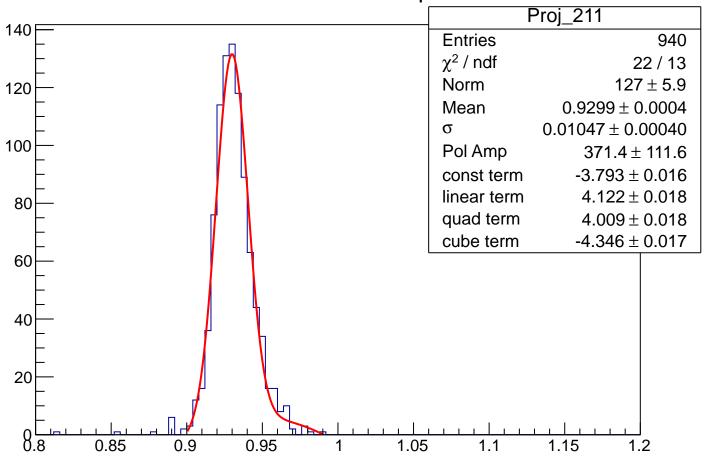


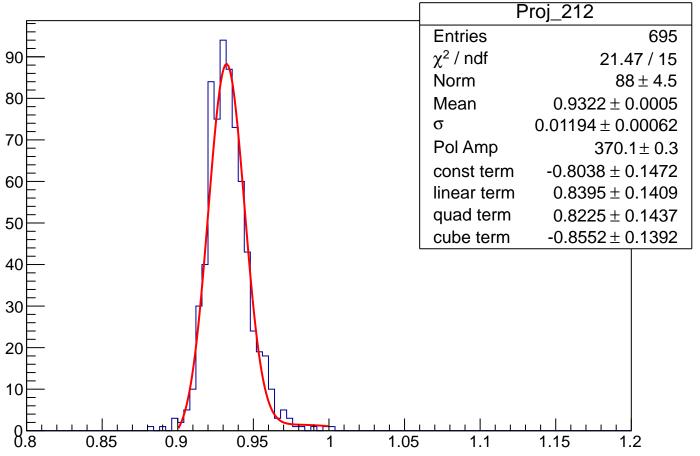


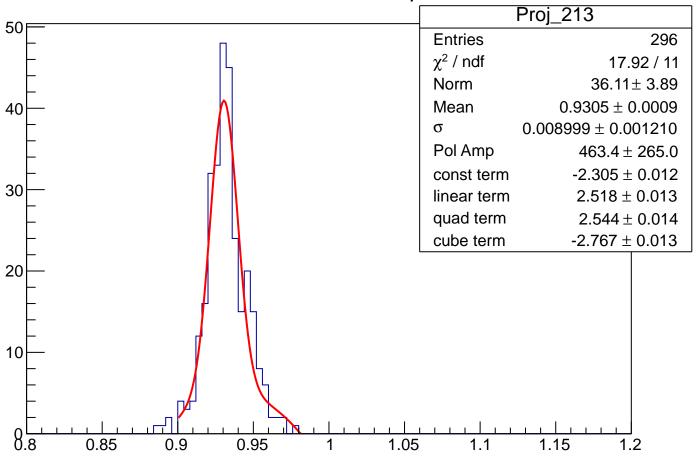












PhiThetaMassPip Proj_214 **Entries** 442 χ^2 / ndf 24.66 / 12 60 Norm 61.09 ± 3.94 0.9312 ± 0.0006 Mean σ 0.01038 ± 0.00055 50 Pol Amp 254.8 ± 332.5 const term -0.6052 ± 0.0181 40 linear term 0.636 ± 0.020 quad term 0.6374 ± 0.0210 -0.6647 ± 0.0207 cube term 30 20 10

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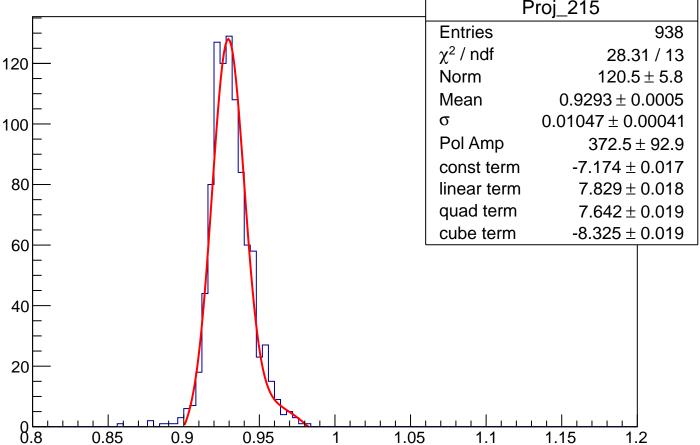
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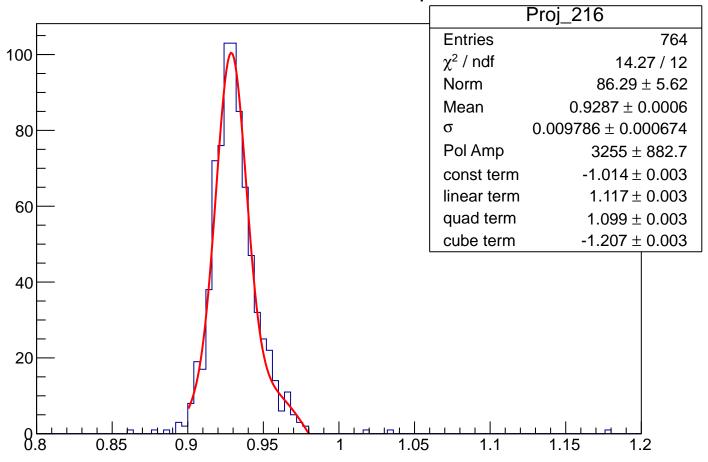
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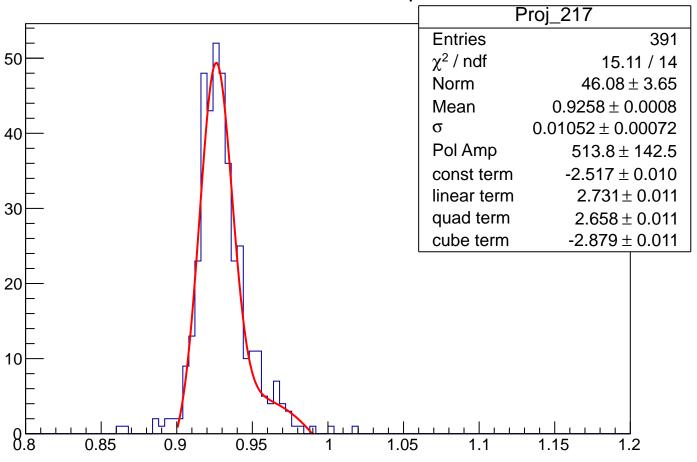
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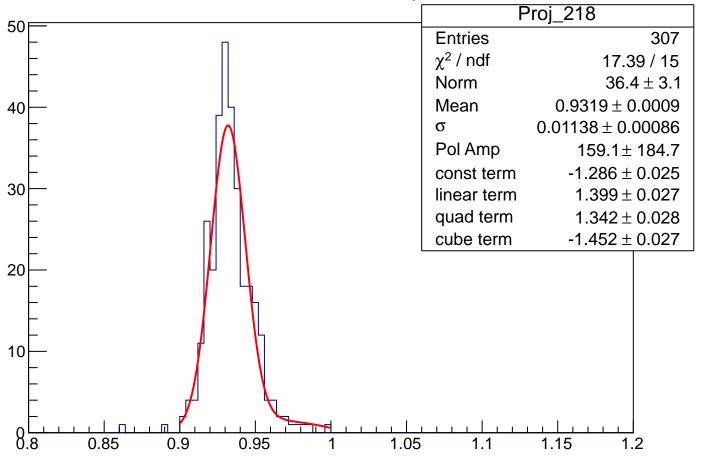
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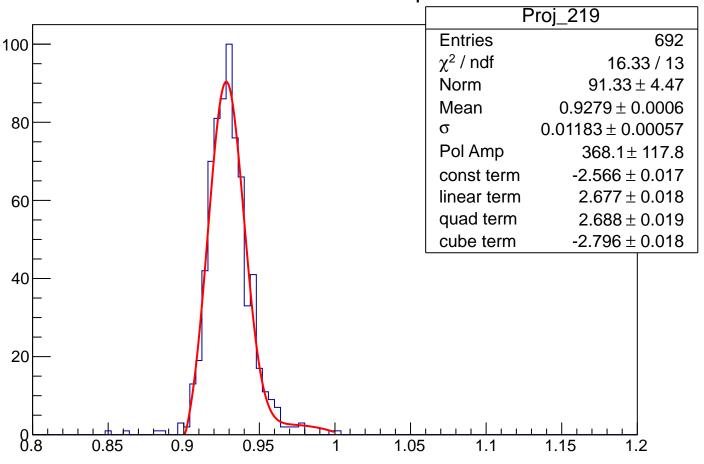
PhiThetaMassPip Proj_215 **Entries** χ^2 / ndf Norm Mean σ Pol Amp const term linear term quad term











PhiThetaMassPip Proj_220 **Entries** 682 χ^2 / ndf 32.87 / 12 Norm 89.96 ± 4.90 100 0.9264 ± 0.0006 Mean σ 0.0112 ± 0.0006 Pol Amp 368.3 ± 118.1 80 const term -2.998 ± 0.017 3.19 ± 0.02 linear term quad term 3.095 ± 0.019 60 -3.286 ± 0.019 cube term 40 20 8.8

1.05

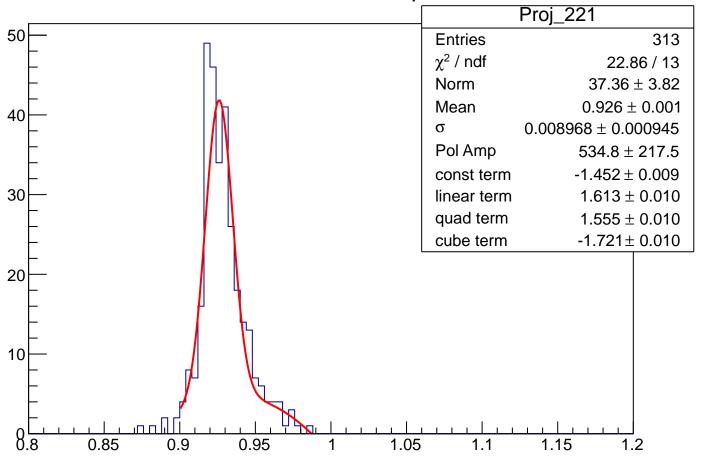
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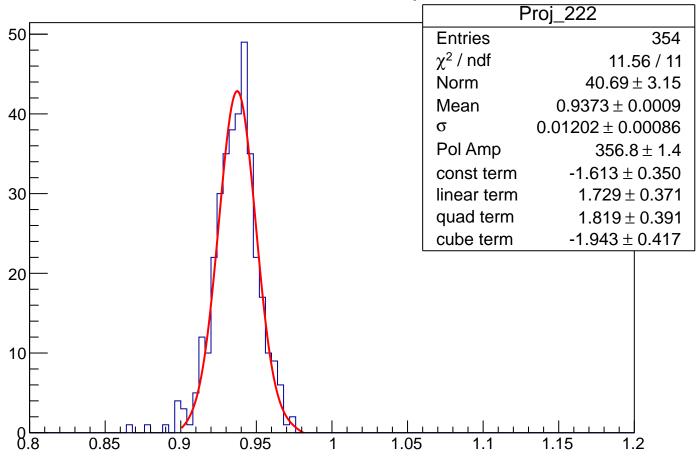
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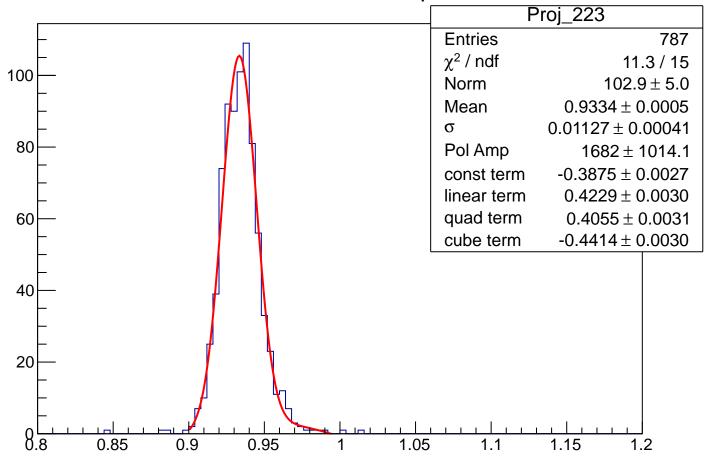
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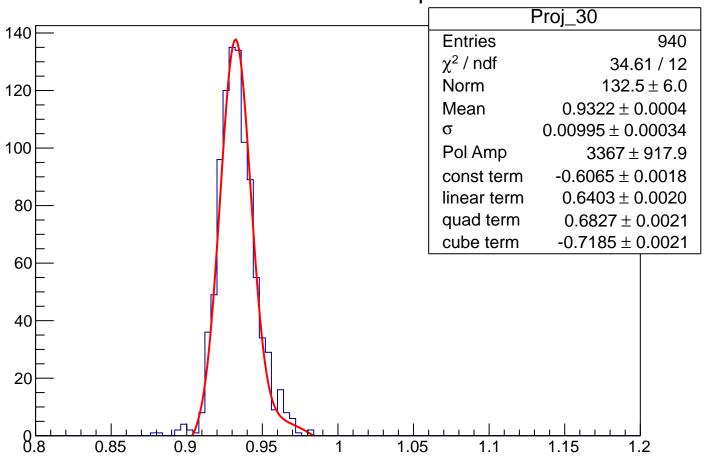
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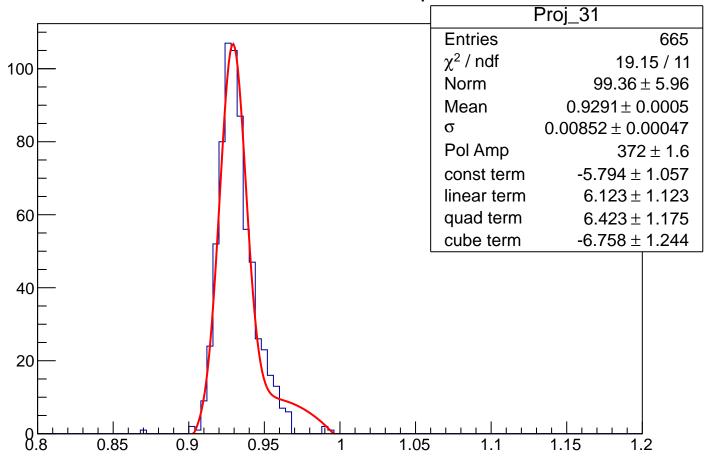
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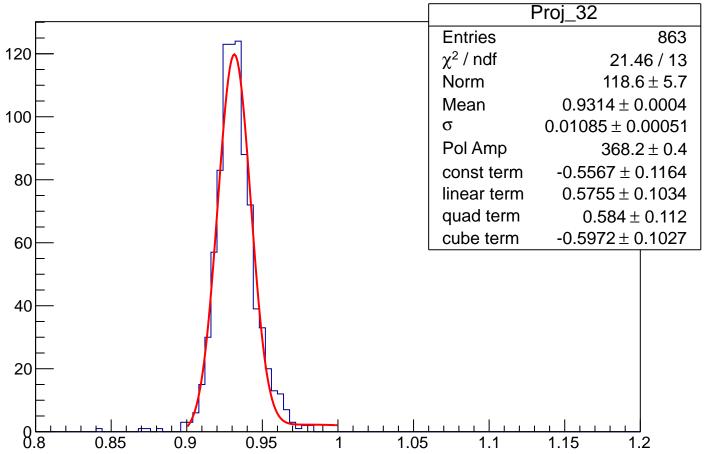


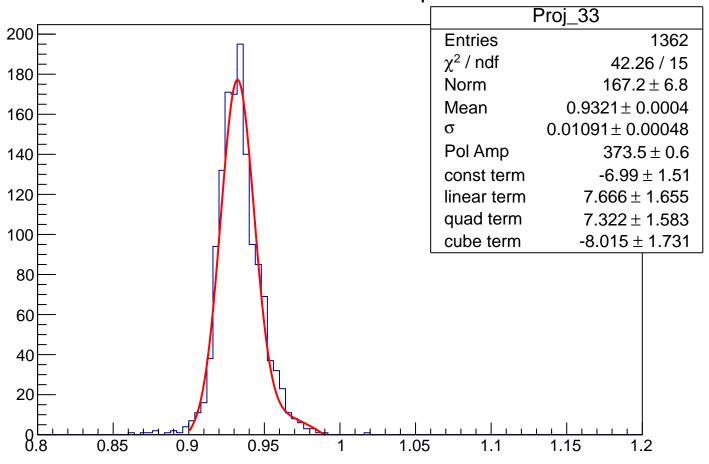




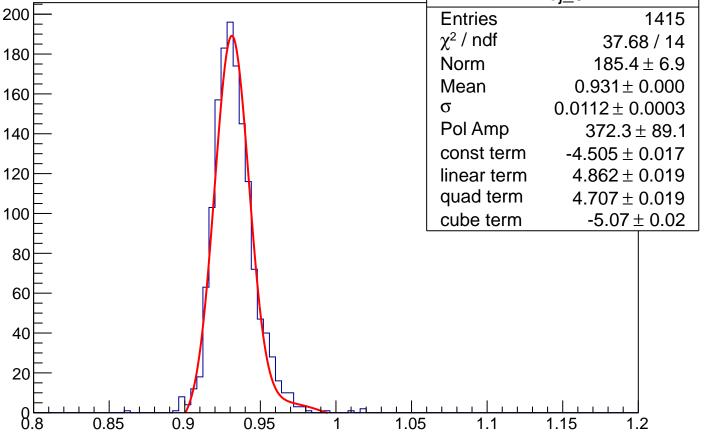


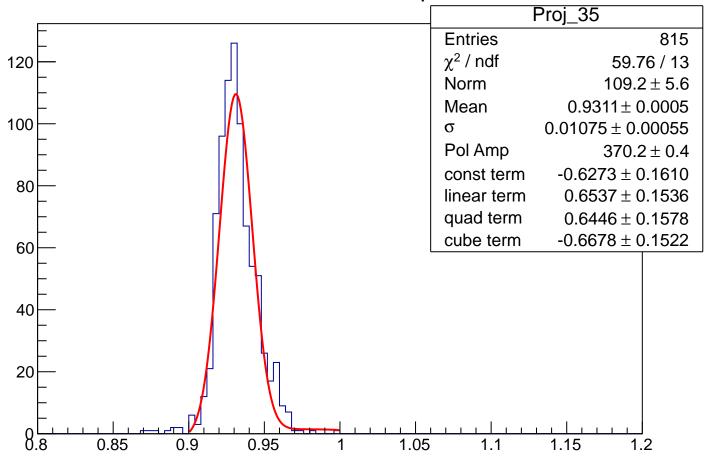


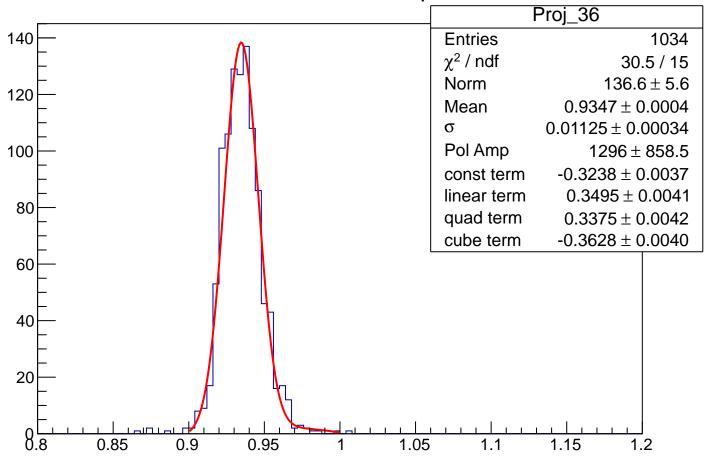


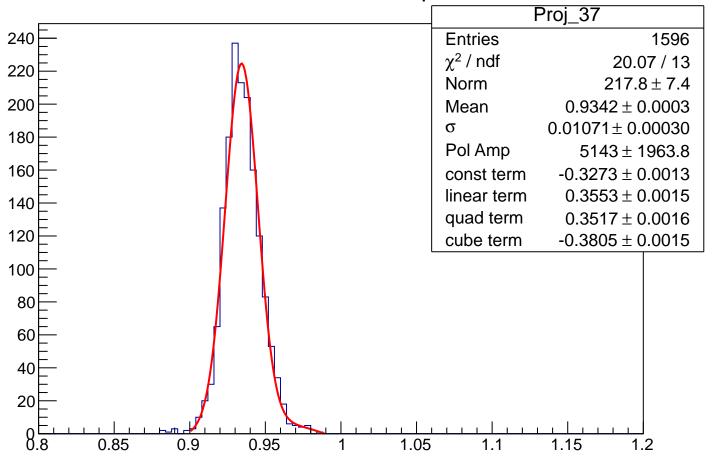


PhiThetaMassPip Proj_34 **Entries** 1415 χ^2 / ndf 37.68 / 14 Norm 185.4 ± 6.9 0.931 ± 0.000 Mean σ 0.0112 ± 0.0003 Pol Amp 372.3 ± 89.1 const term -4.505 ± 0.017 4.862 ± 0.019 linear term quad term 4.707 ± 0.019 cube term -5.07 ± 0.02

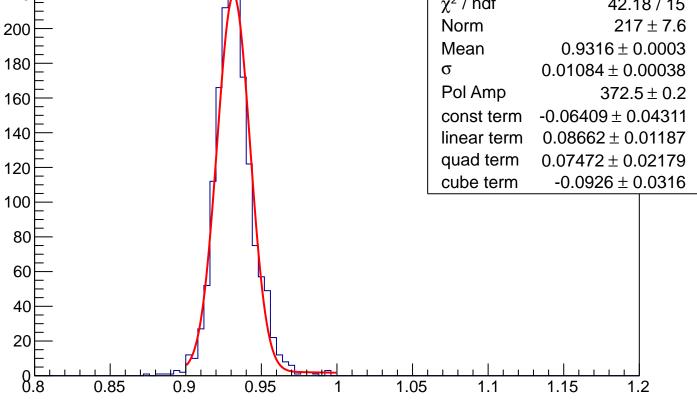


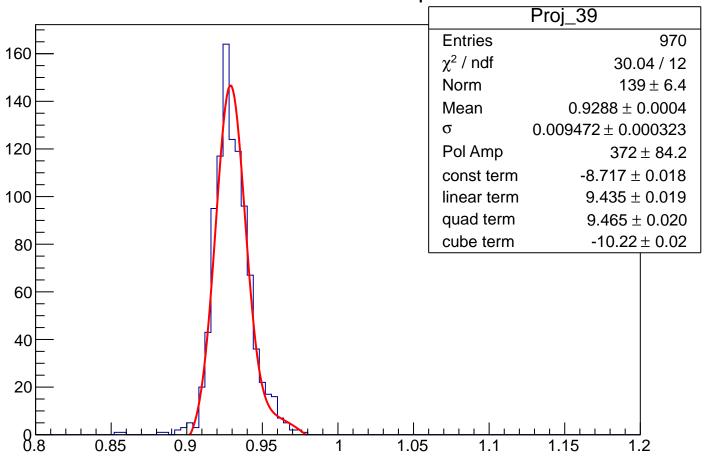


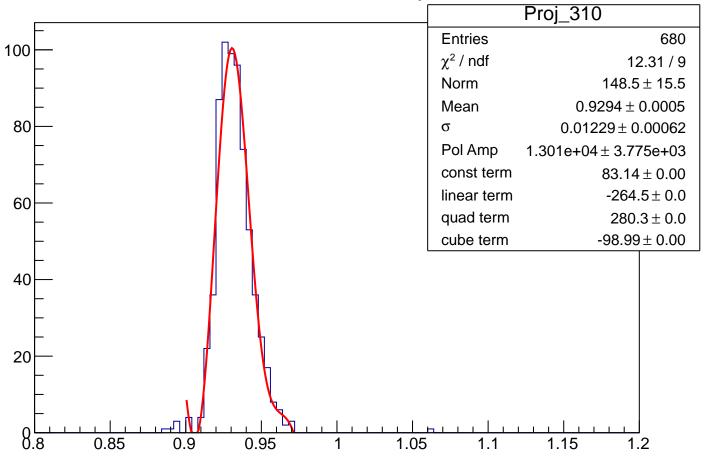




PhiThetaMassPip Proj_38 **Entries** 1576 220 χ^2 / ndf 42.18 / 15 Norm 217 ± 7.6 Mean 0.9316 ± 0.0003 σ 0.01084 ± 0.00038 Pol Amp 372.5 ± 0.2 const term -0.06409 ± 0.04311 0.08662 ± 0.01187 linear term quad term 0.07472 ± 0.02179 cube term -0.0926 ± 0.0316 80 60 40







PhiThetaMassPip Proj_311 **Entries** 873 χ^2 / ndf 31.36 / 13 120 Norm 120.3 ± 5.5 Mean 0.9326 ± 0.0004 100 σ 0.01098 ± 0.00048 Pol Amp 370.3 ± 0.3 const term -0.4256 ± 0.0967 80 linear term 0.4328 ± 0.0832 quad term 0.4399 ± 0.0911 -0.4437 ± 0.0815 cube term 60 40 20

1.05

1.15

1.2

8.8

0.85

0.9

PhiThetaMassPip Proj_312 **Entries** 503 χ^2 / ndf 13.13 / 12 Norm 63.75 ± 3.98 Mean 0.9306 ± 0.0006 σ 0.01148 ± 0.00081 Pol Amp 365.9 ± 0.7 const term -0.7494 ± 0.1671 linear term 0.818 ± 0.157 quad term 0.7826 ± 0.1614 -0.8501 ± 0.1542 cube term

1.05

1.1

1.15

1.2

70

60

50

40

30

20

10

8.8

0.85

0.9

PhiThetaMassPip Proj_313 **Entries** 361 50 χ^2 / ndf 13.14 / 12 Norm 49.44 ± 3.36 Mean 0.931 ± 0.001 40 σ -0.01062 ± 0.00060 Pol Amp 21.91 ± 29.55 const term -4.695 ± 0.212 linear term 5.036 ± 0.231 30 4.55 ± 0.25 quad term cube term -4.842 ± 0.252 20 10

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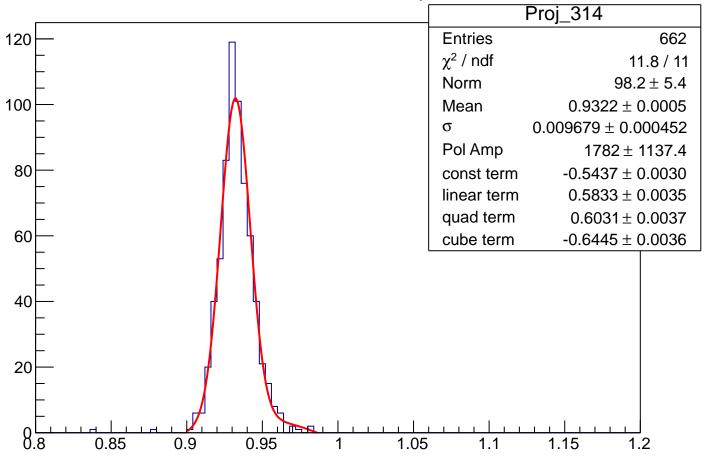
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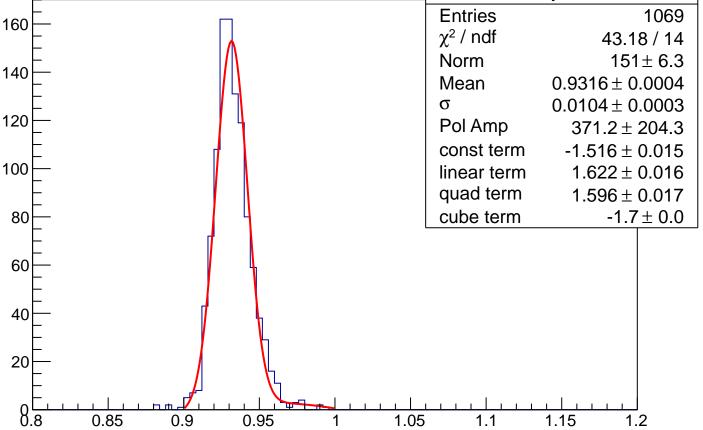
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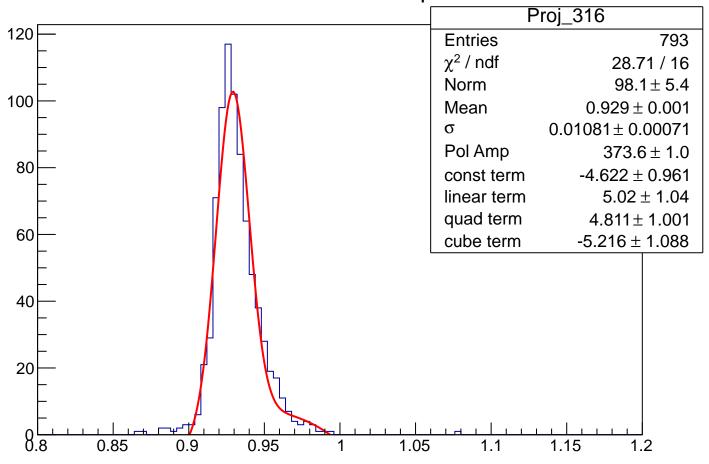
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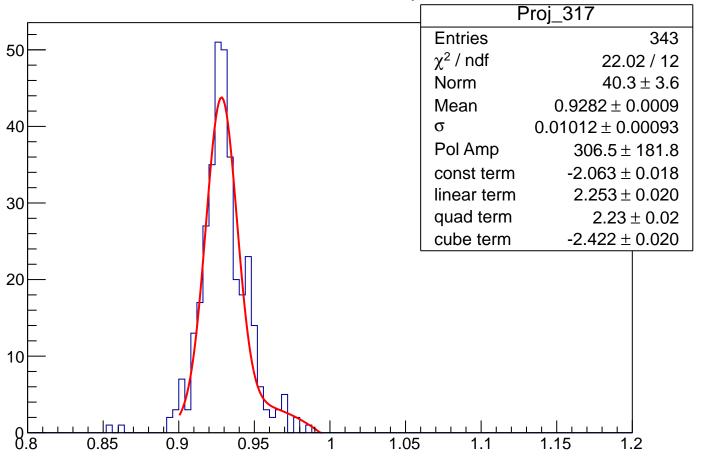
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PhiThetaMassPip Proj_315 **Entries** χ^2 / ndf Norm Mean σ Pol Amp const term linear term quad term cube term







PhiThetaMassPip Proj_318 **Entries** 321 45 χ^2 / ndf 7.721 / 11 Norm 35.77 ± 3.37 40 Mean 0.9316 ± 0.0009 σ 0.01071 ± 0.00085 35 Pol Amp 357 ± 1.4 30 const term -2.471 ± 0.504 linear term 2.694 ± 0.533 quad term 25 2.709 ± 0.543 cube term -2.94 ± 0.57 20 15 10 5

1.05

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0.8 8.8

0.85

0.9

PhiThetaMassPip Proj_319 **Entries** 688 χ^2 / ndf 30.3 / 12 120 Norm 88.41 ± 5.33 0.9292 ± 0.0005 Mean 100 σ 0.01003 ± 0.00060 Pol Amp 368.5 ± 131.7 const term -1.968 ± 0.017 80 linear term 2.206 ± 0.018 quad term 2.064 ± 0.019 cube term -2.303 ± 0.018 60 40 20

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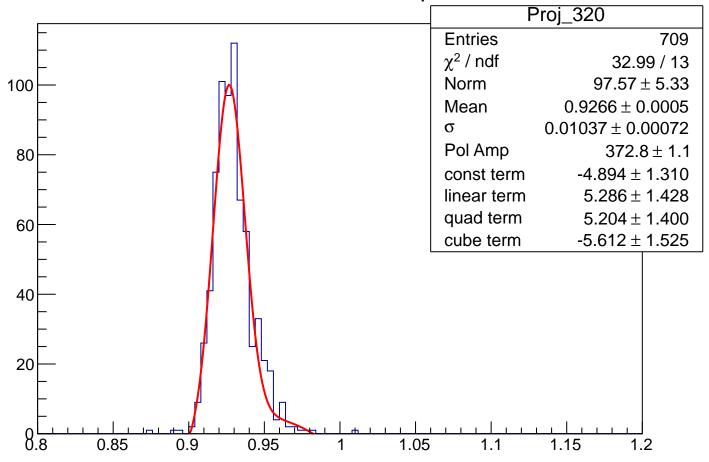
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PhiThetaMassPip Proj_321 **Entries** 434 χ^2 / ndf 21.48 / 12 60 Norm 53.79 ± 3.84 Mean 0.9266 ± 0.0008 50 σ 0.01092 ± 0.00071 Pol Amp 481.8 ± 145.5 const term -2.537 ± 0.012 40 linear term 2.716 ± 0.013 quad term 2.704 ± 0.014 cube term -2.886 ± 0.014 30 20 10 8.8

1.05

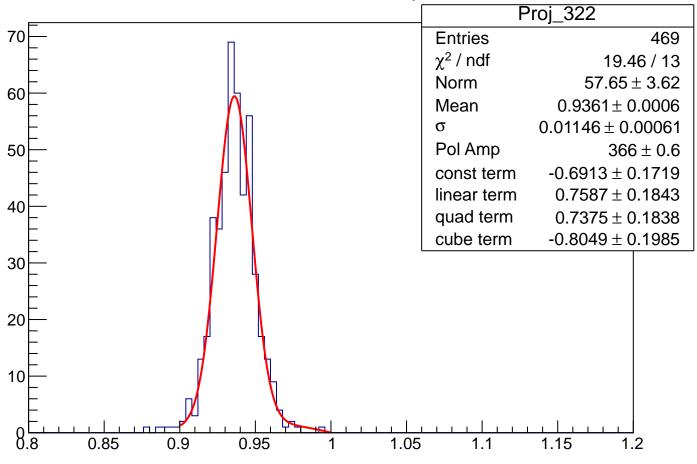
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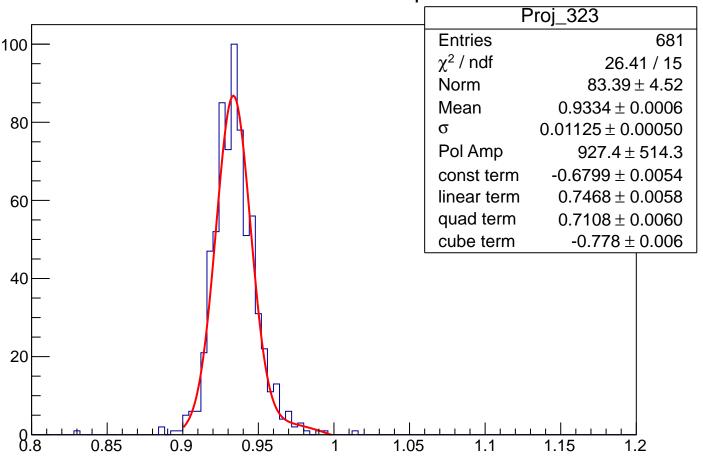
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0.85

0.9





PhiThetaMassPip Proj_40 120 **Entries** 823 χ^2 / ndf 31.58 / 14 Norm 114.3 ± 5.8 100 0.9324 ± 0.0004 Mean σ 0.0102 ± 0.0004 Pol Amp 1531± 1593.6 80 const term -0.3126 ± 0.0036 0.3396 ± 0.0041 linear term quad term 0.3339 ± 0.0043 60 -0.3607 ± 0.0042 cube term 40 20

1.05

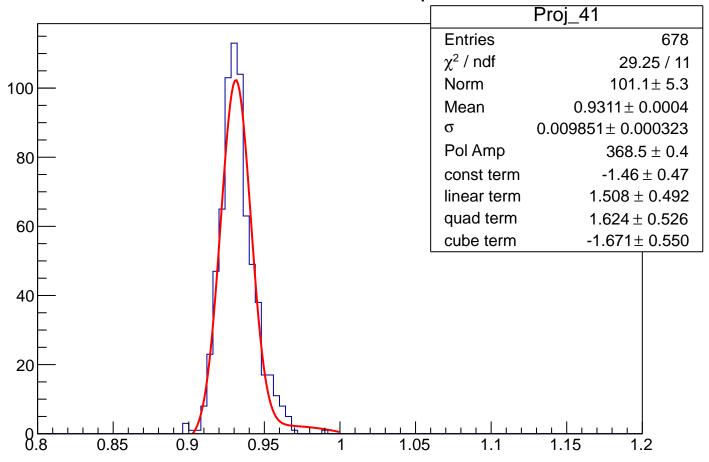
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1.2

8.8

0.85

0.9



PhiThetaMassPip Proj_42 **Entries** 1038 140 χ^2 / ndf 13.02 / 10 Norm 138.2 ± 5.6 Mean 0.9334 ± 0.0004 120 σ 0.01132 ± 0.00044 Pol Amp 357.2 ± 132.0 100 const term -0.5132 ± 0.0281 linear term 0.4135 ± 0.0305 80 quad term 0.5326 ± 0.0329 cube term -0.4074 ± 0.0355 60 40 20

1.05

1.1

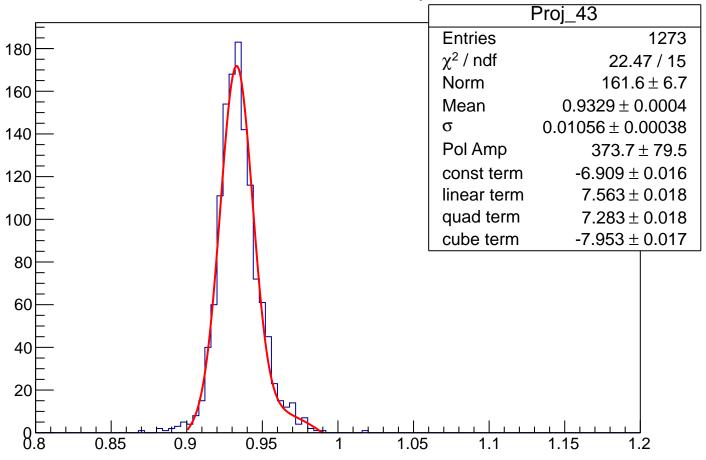
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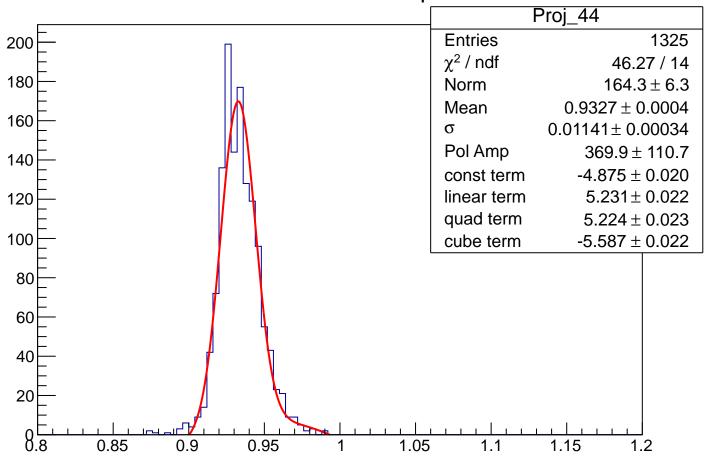
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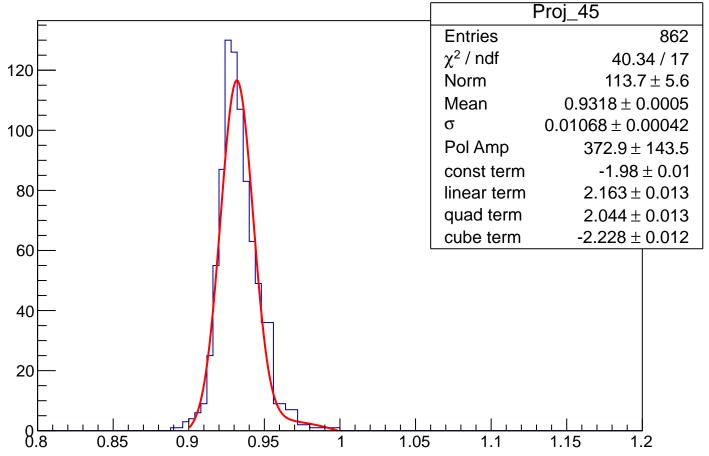
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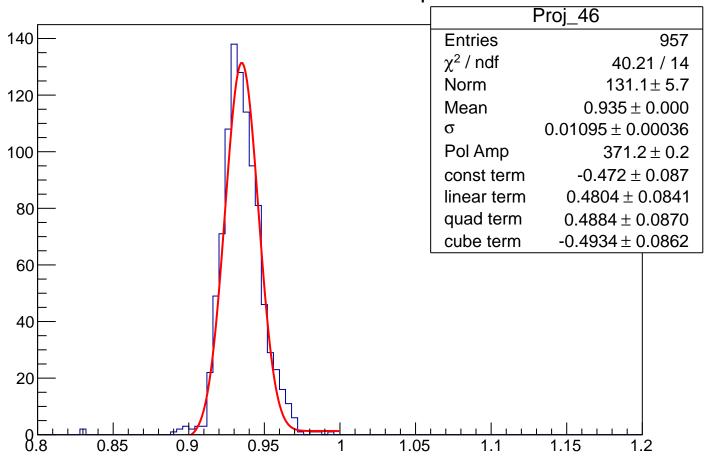
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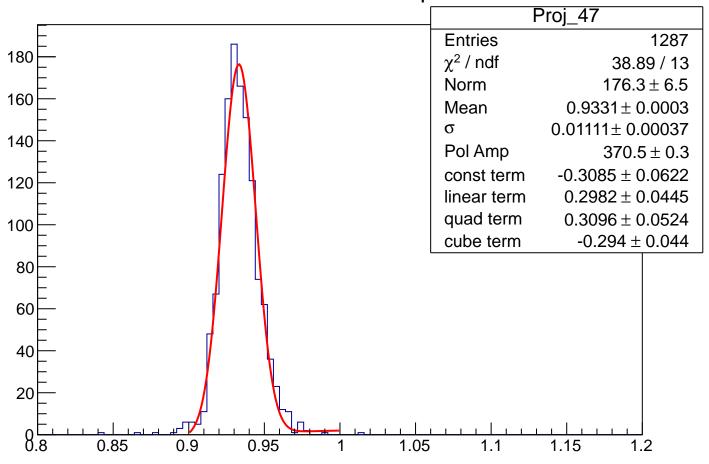
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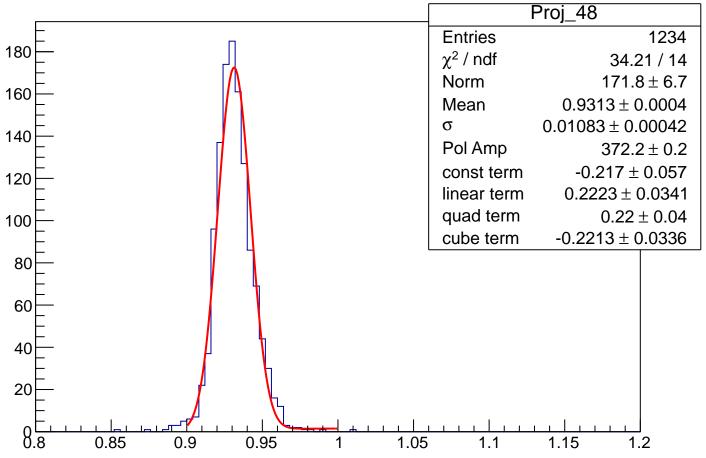


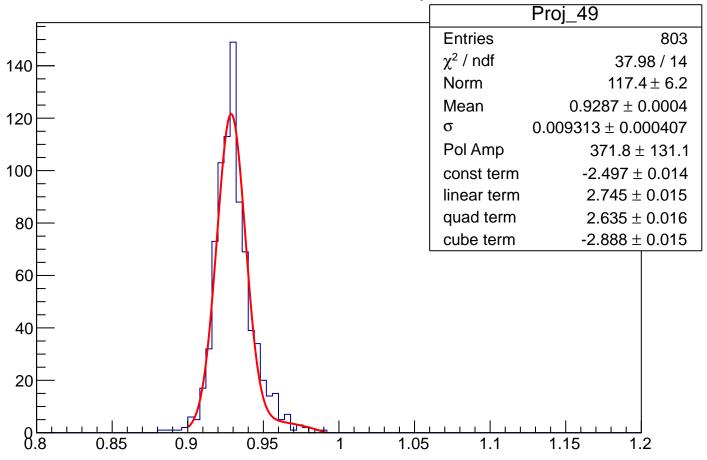












PhiThetaMassPip Proj_410 **Entries** 702 120 χ^2 / ndf 20.98 / 14 Norm 101.5 ± 5.1 0.9345 ± 0.0005 Mean 100 σ 0.0102 ± 0.0004 Pol Amp 431.8 ± 231.6 const term -0.8379 ± 0.0103 80 0.8748 ± 0.0119 linear term quad term 0.9184 ± 0.0126 cube term -0.9531 ± 0.0121 60 40 20 8.8

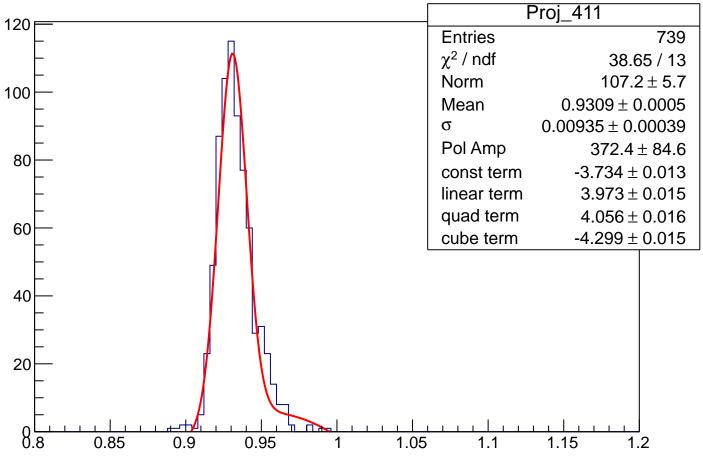
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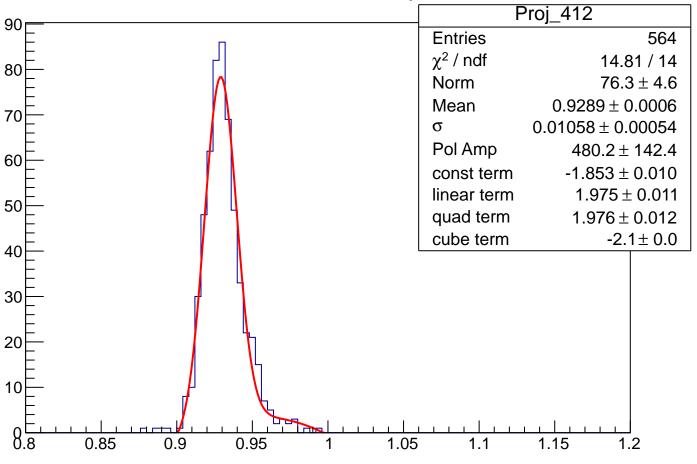
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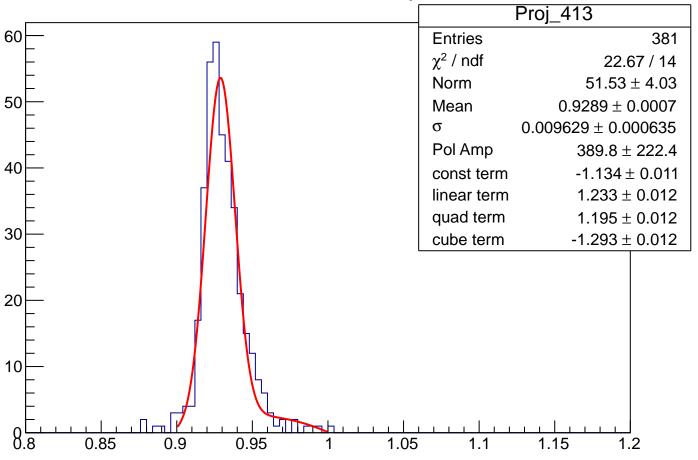
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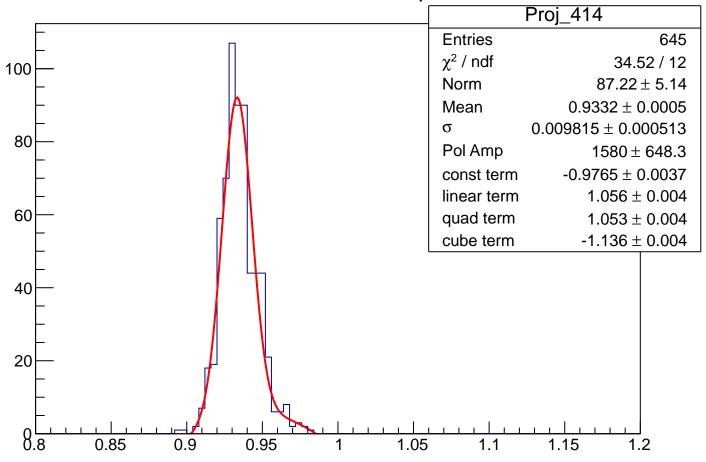
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0.9









PhiThetaMassPip Proj_415 **Entries** 866 χ^2 / ndf 21.81 / 14 120 Norm 116.5 ± 5.6 0.9333 ± 0.0004 Mean σ 0.0101 ± 0.0004 100 Pol Amp 1930 ± 872.8 const term -0.4047 ± 0.0032 80 linear term 0.4498 ± 0.0034 quad term 0.4315 ± 0.0035 cube term -0.4771 ± 0.0034 60 40 20 8.8

1.05

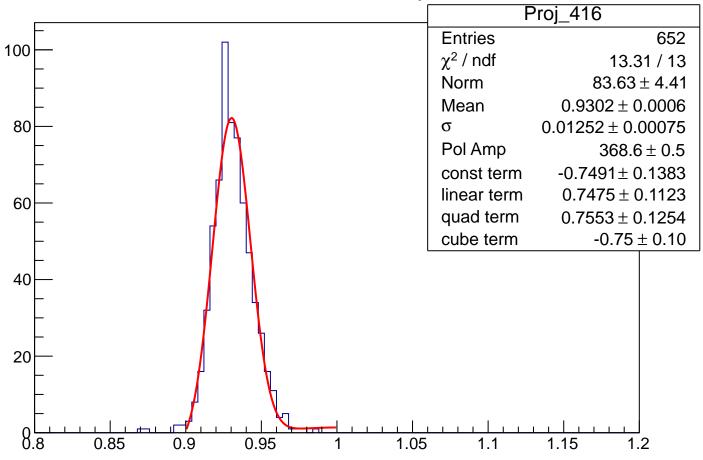
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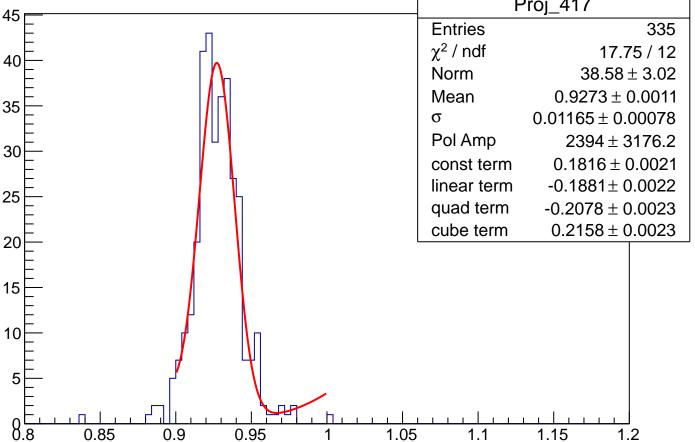
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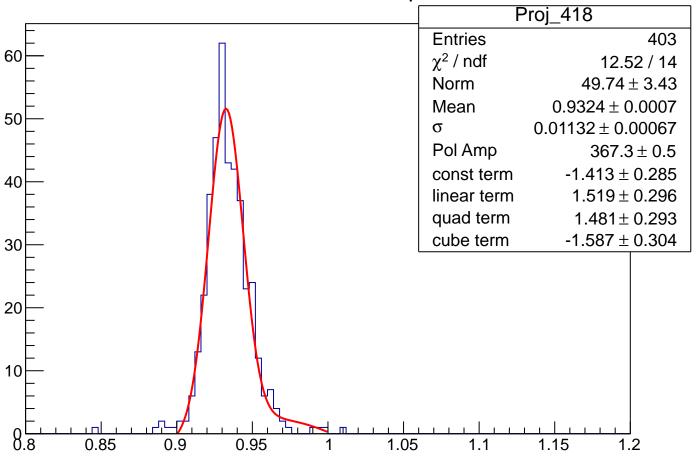
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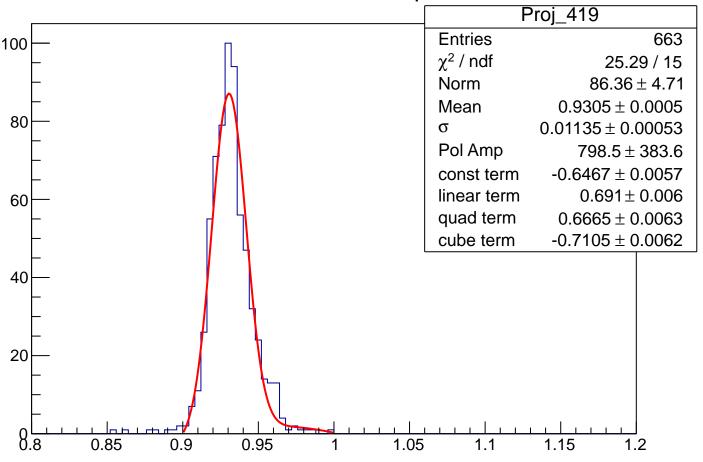
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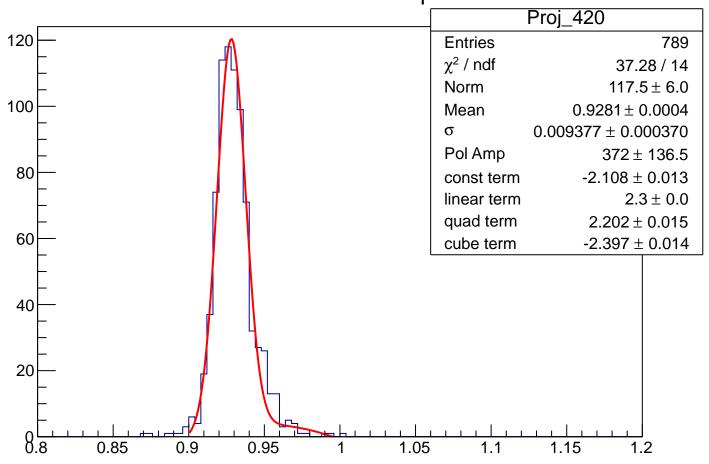


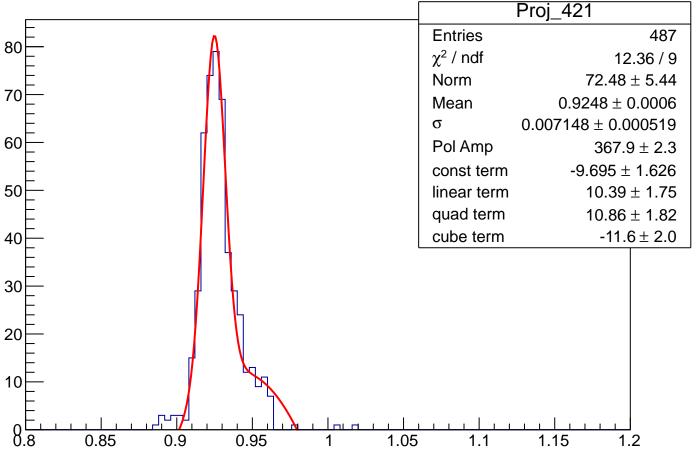
PhiThetaMassPip Proj_417 **Entries** χ^2 / ndf Norm Mean σ Pol Amp const term linear term quad term



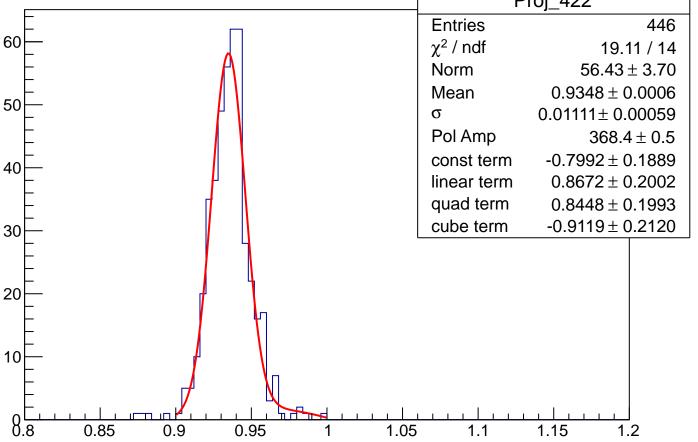








PhiThetaMassPip Proj_422 **Entries** 446 χ^2 / ndf 19.11 / 14 Norm 56.43 ± 3.70 Mean 0.9348 ± 0.0006 σ 0.01111 ± 0.00059 Pol Amp 368.4 ± 0.5 const term -0.7992 ± 0.1889 linear term 0.8672 ± 0.2002 quad term 0.8448 ± 0.1993 -0.9119 ± 0.2120 cube term



PhiThetaMassPip Proj_423 **Entries** 629 χ^2 / ndf 90 26.99 / 15 Norm 79.21 ± 4.30 80 Mean 0.9341 ± 0.0005 σ 0.01174 ± 0.00055 70 Pol Amp 370.6 ± 0.3 const term -0.8152 ± 0.1394 60 linear term 0.8686 ± 0.1401 quad term 0.8521 ± 0.1410 50 -0.9043 ± 0.1429 cube term 40 30 20 10

1.05

1.1

1.15

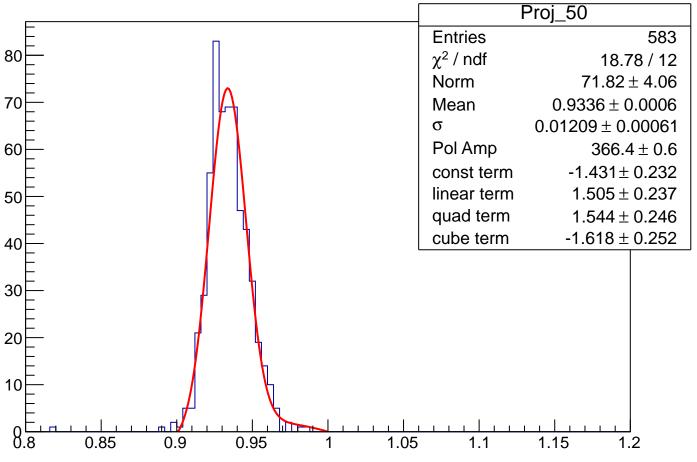
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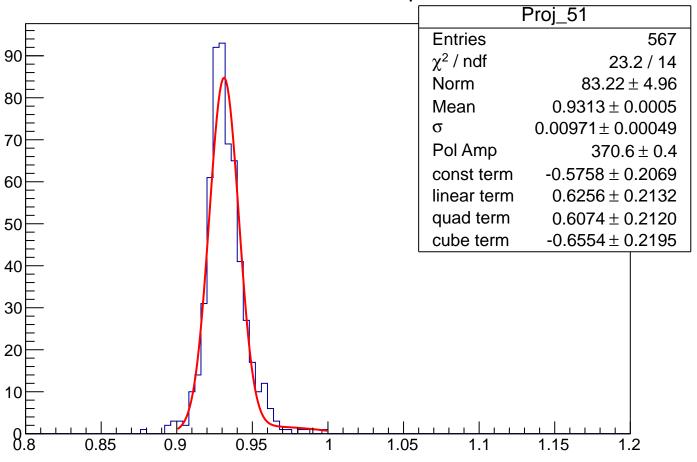
0.8 8.8

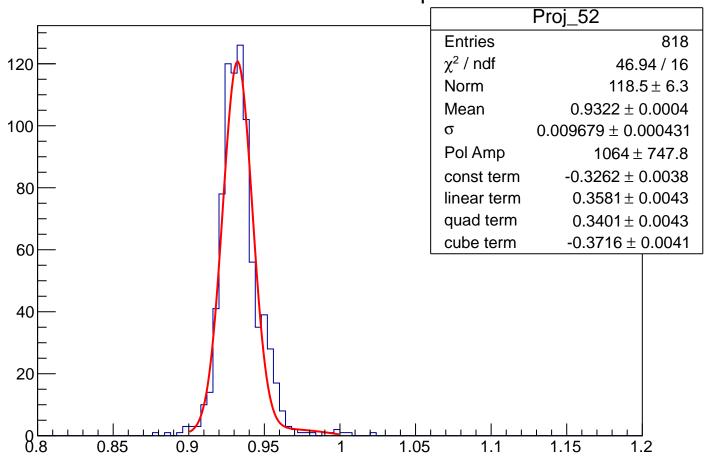
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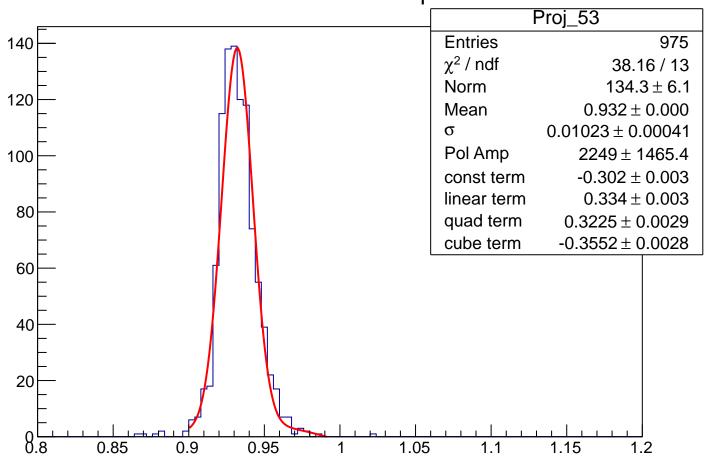
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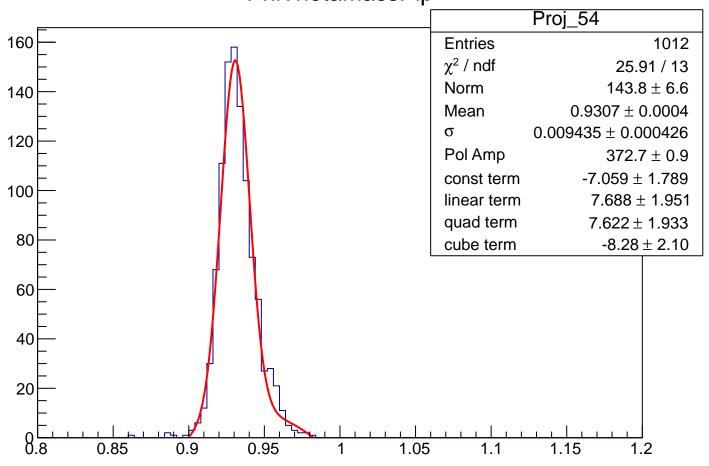
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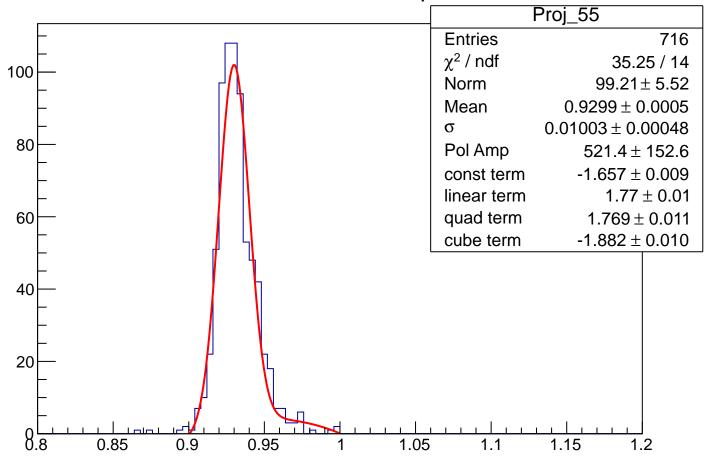


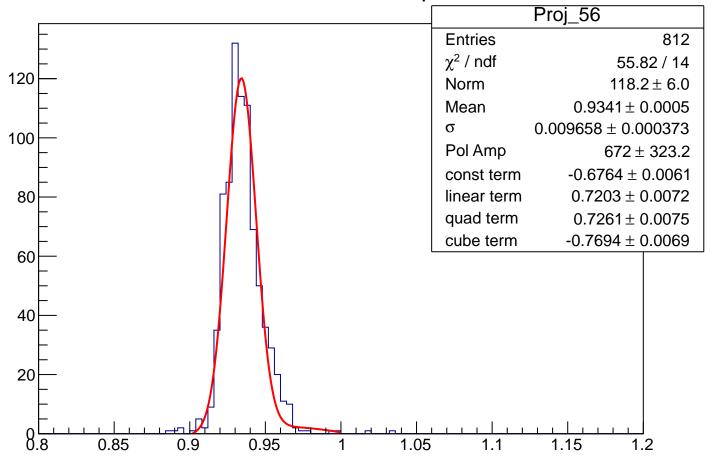


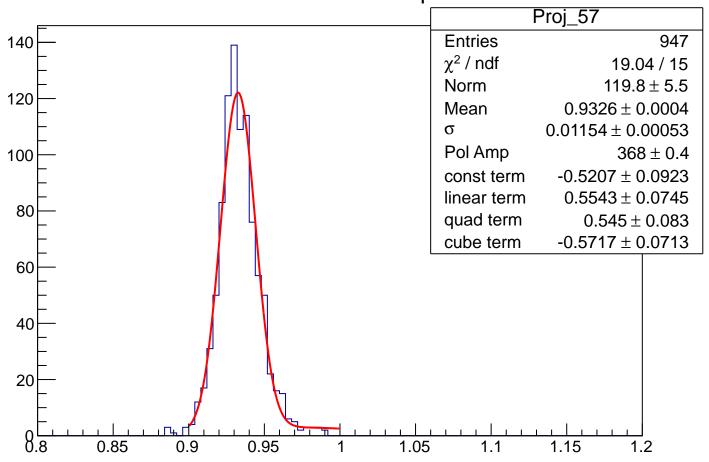


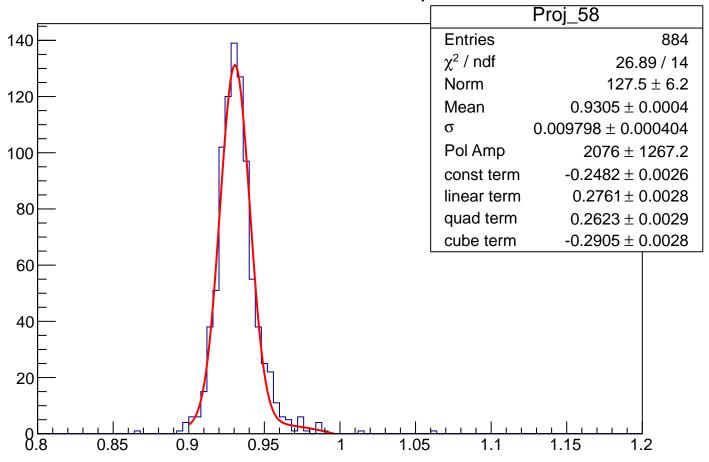


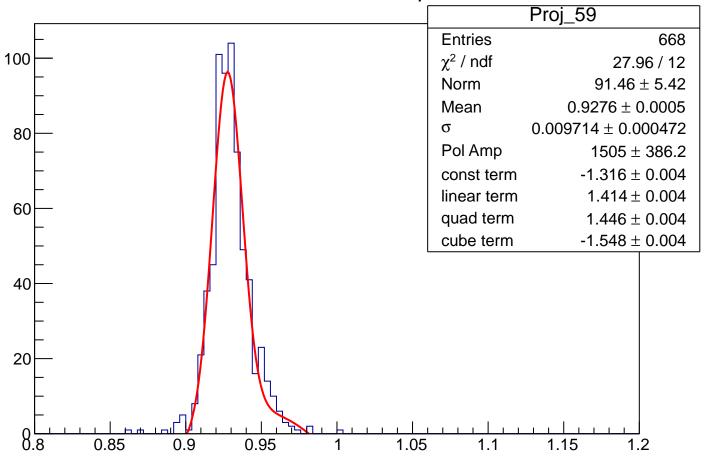


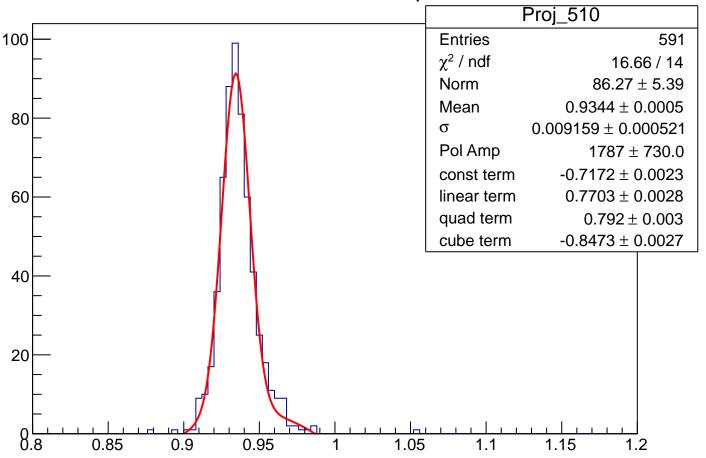


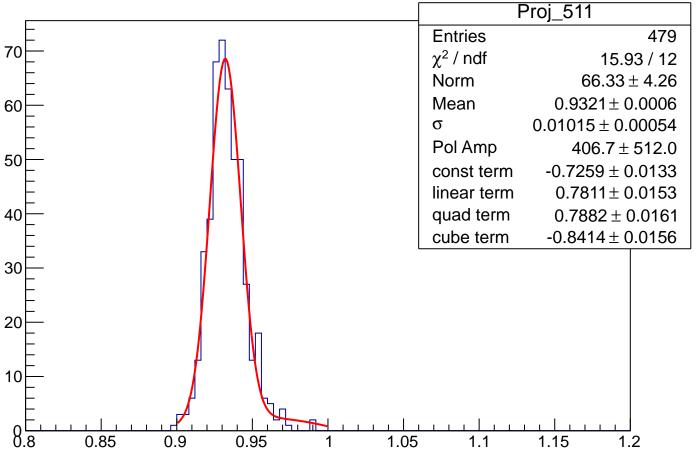


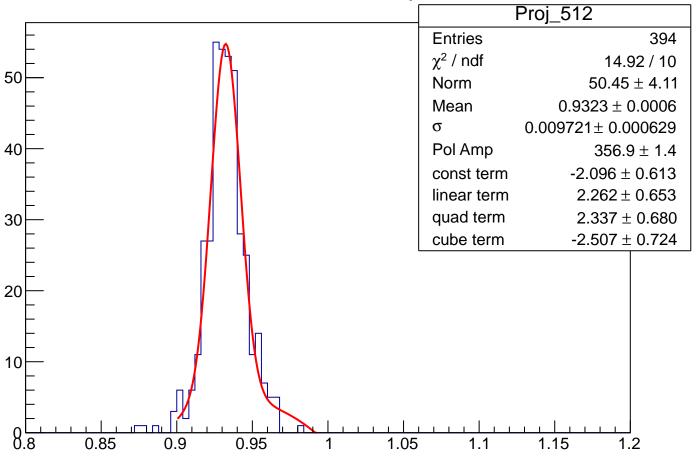












PhiThetaMassPip Proj_513 **Entries** 433 χ^2 / ndf 8.958 / 9 60 Norm 59.82 ± 4.00 0.9273 ± 0.0007 Mean 50 σ 0.0104 ± 0.0007 Pol Amp 351.1± 1.7 const term -1.206 ± 0.332 40 1.228 ± 0.334 linear term quad term 1.331 ± 0.362 -1.345 ± 0.369 cube term 30 20 10

1.05

1.1

1.15

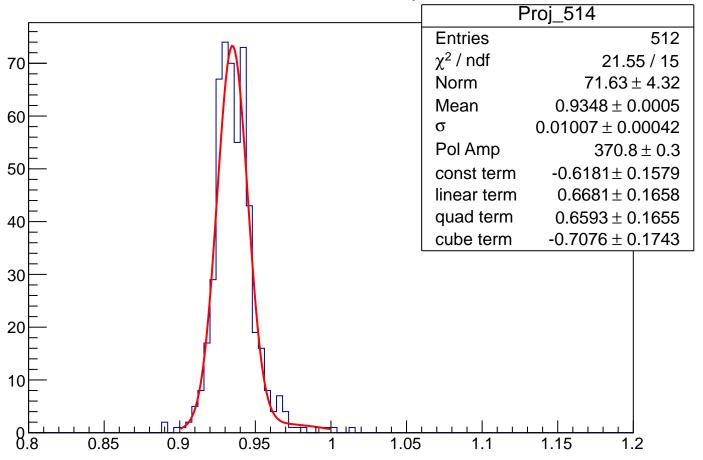
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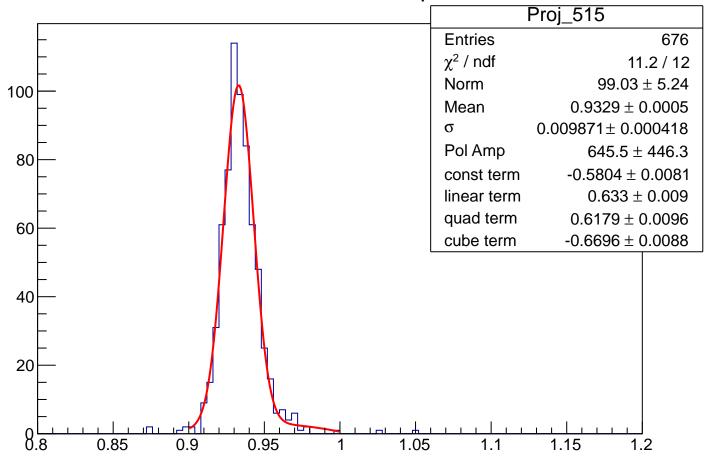
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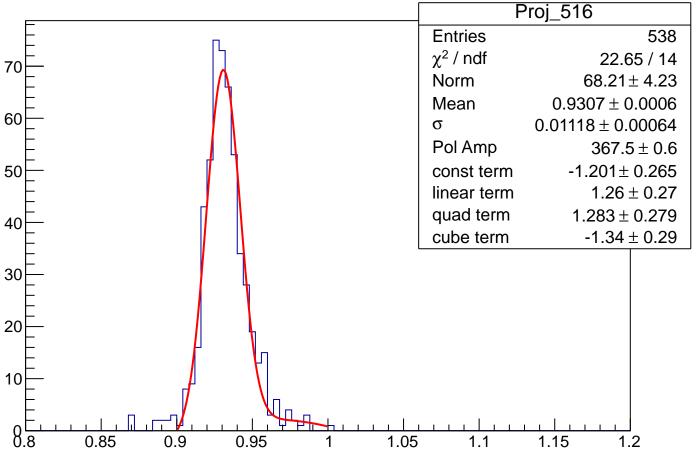
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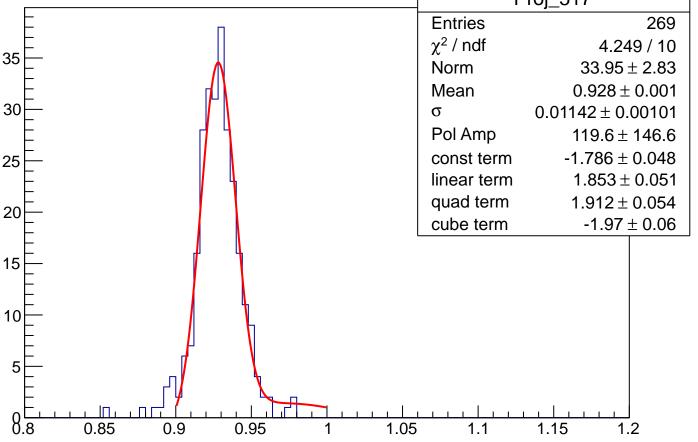
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PhiThetaMassPip Proj_517 **Entries** 269 χ^2 / ndf 4.249 / 10 33.95 ± 2.83 Norm Mean 0.928 ± 0.001 0.01142 ± 0.00101 σ Pol Amp 119.6 ± 146.6 const term -1.786 ± 0.048 linear term 1.853 ± 0.051 quad term 1.912 ± 0.054 cube term -1.97 ± 0.06



PhiThetaMassPip Proj_518 **Entries** 331 45 χ^2 / ndf 11.18 / 11 Norm 42.18 ± 3.06 40 Mean 0.9333 ± 0.0009 σ 0.01153 ± 0.00070 35 Pol Amp 360.7 ± 1.1 30 const term -1.278 ± 0.291 linear term 1.358 ± 0.299 quad term 25 1.41 ± 0.31 cube term -1.495 ± 0.325 20 15 10 5

1.05

1.1

1.15

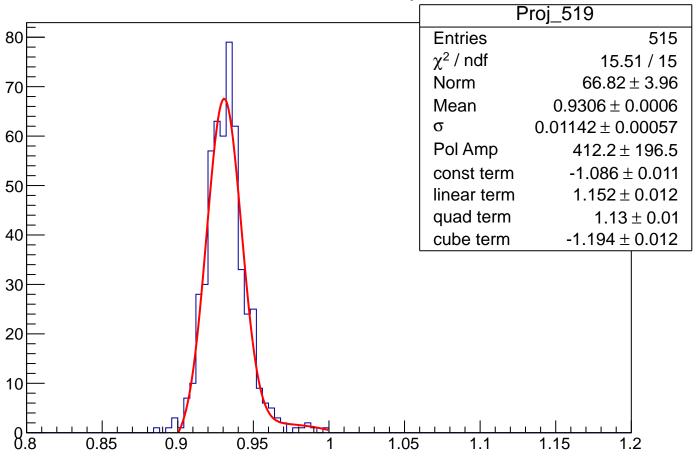
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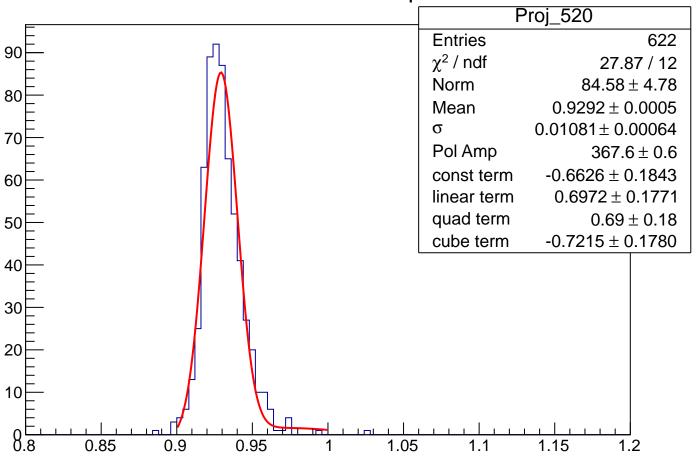
0.8 8.8

0.85

0.9

0.95





PhiThetaMassPip Proj_521 **Entries** 394 χ^2 / ndf 20.65 / 14 60 Norm 53.9 ± 3.9 Mean 0.9264 ± 0.0007 σ 0.01033 ± 0.00067 50 Pol Amp 363 ± 133.4 const term -2 ± 0.0 40 linear term 2.132 ± 0.013 quad term 2.118 ± 0.013 cube term -2.252 ± 0.013 30 20 10

1.05

1.1

1.15

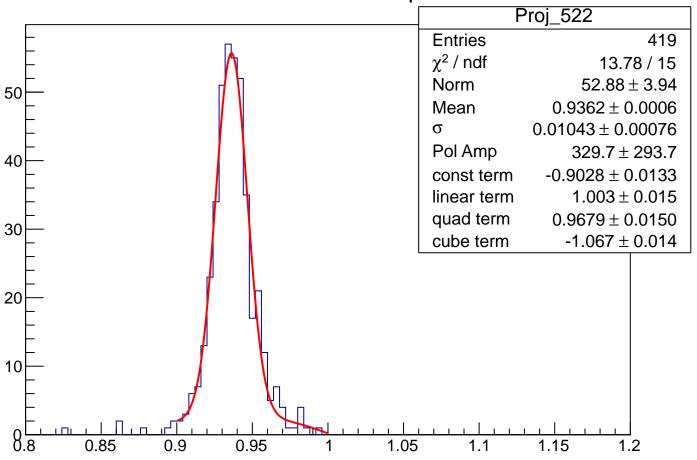
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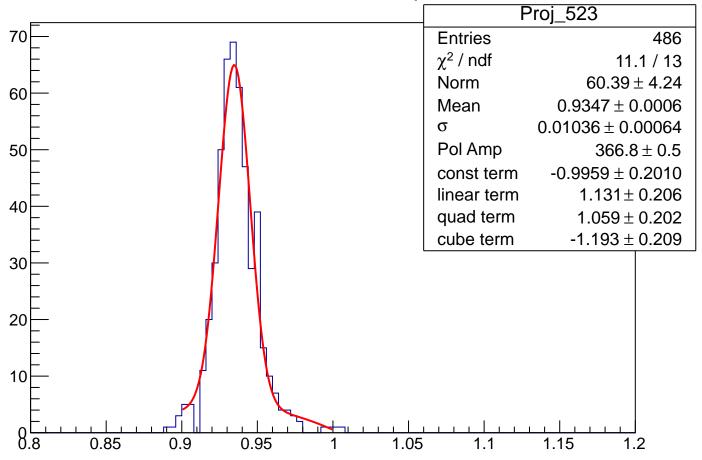
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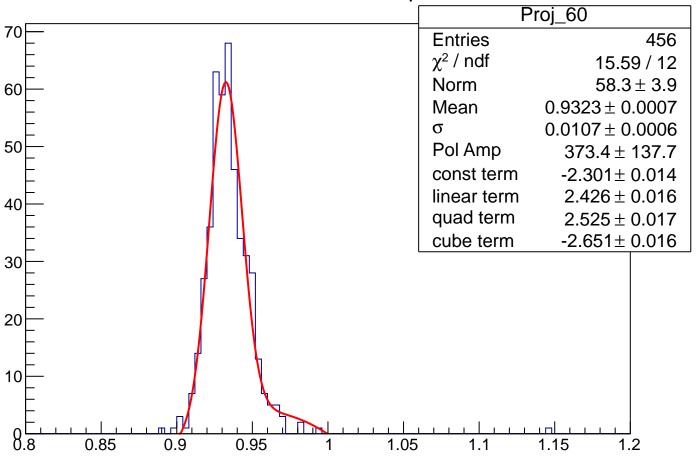
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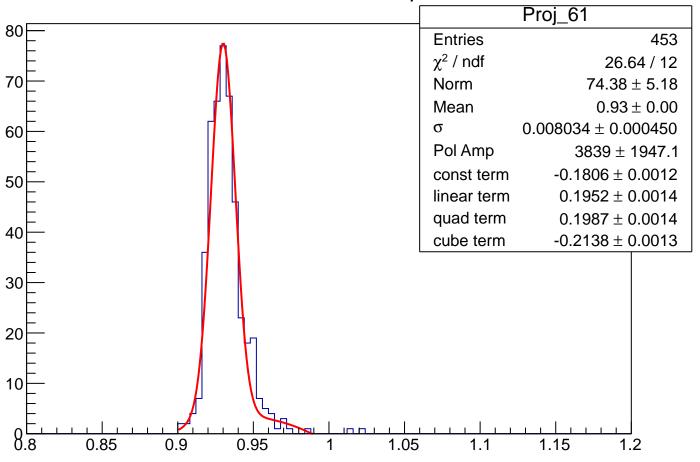
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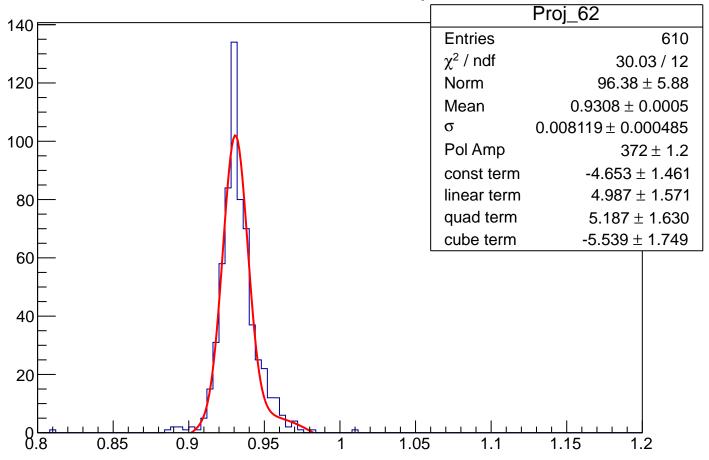
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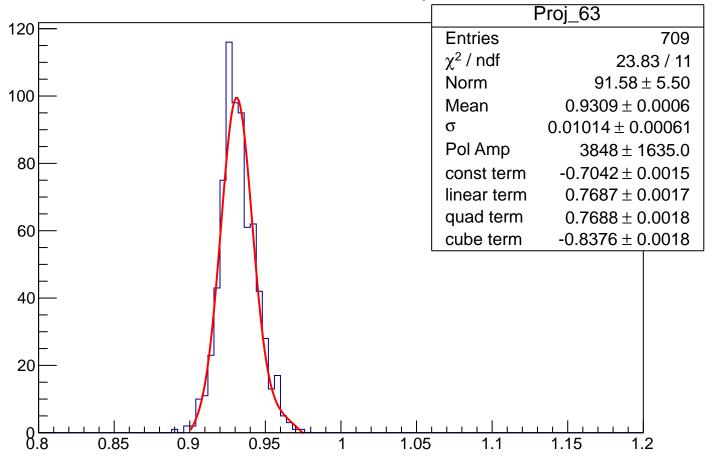


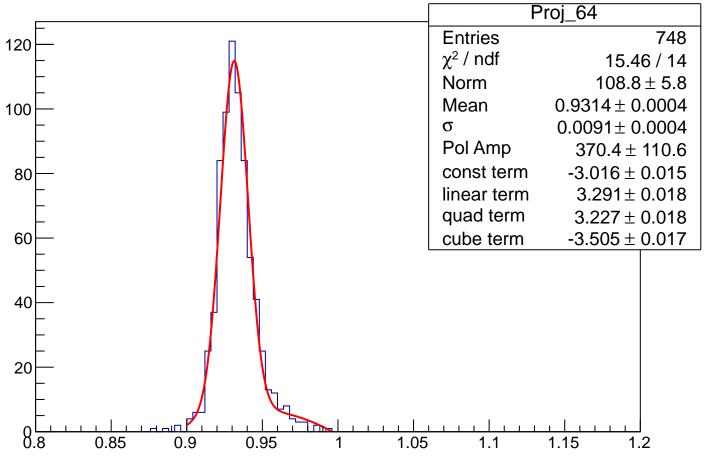


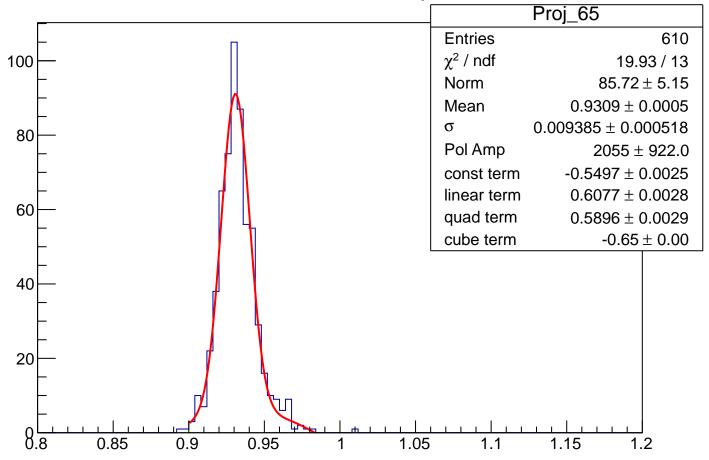


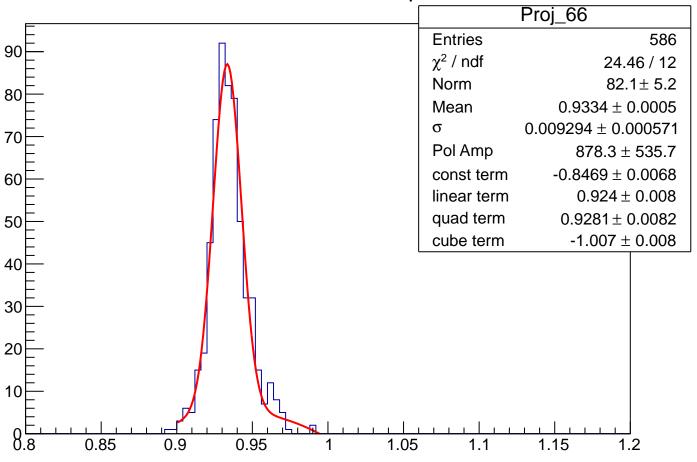


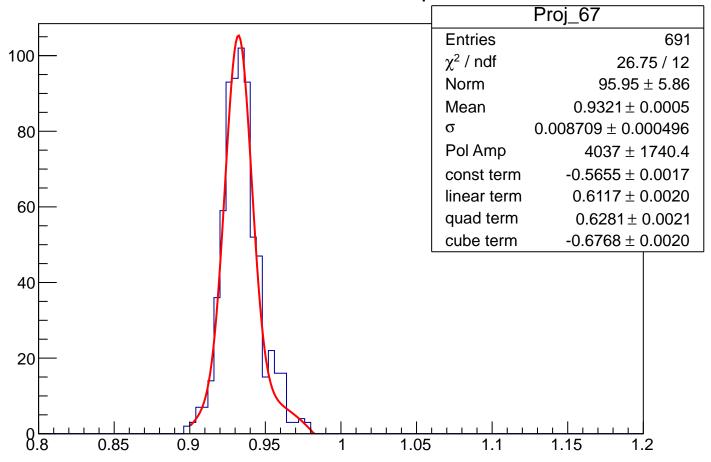


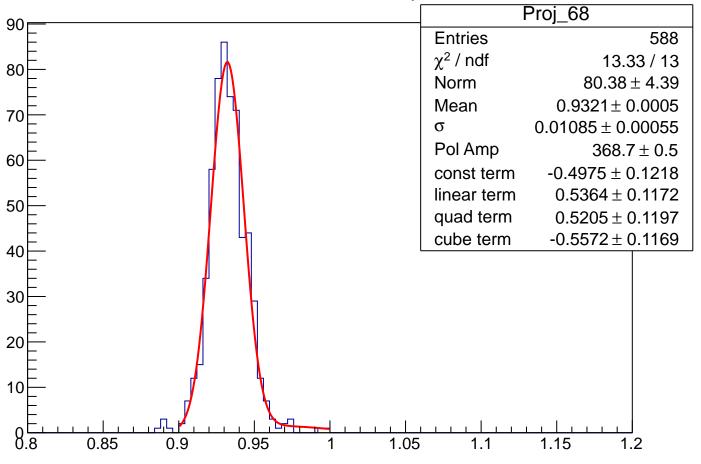


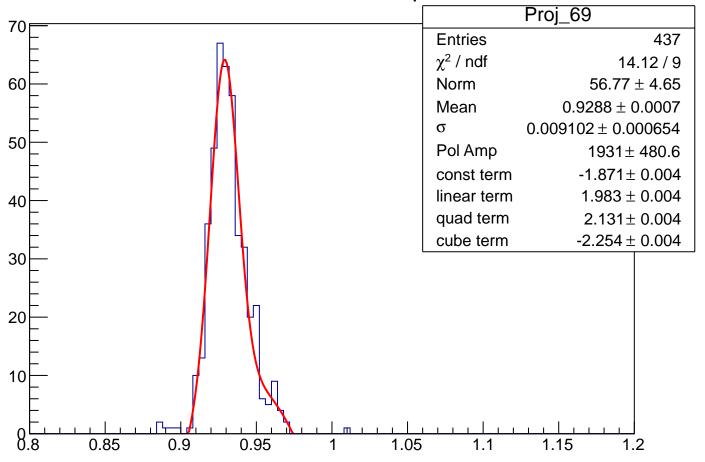


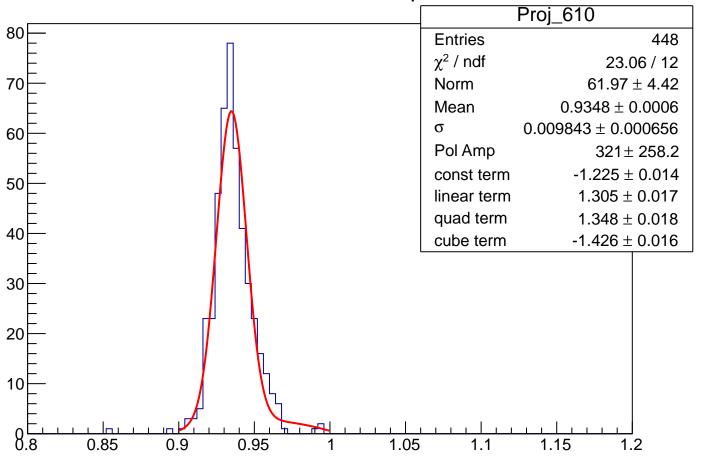












PhiThetaMassPip Proj_611 **Entries** 407 χ^2 / ndf 14.7 / 13 60 Norm 55.12 ± 4.00 Mean 0.9308 ± 0.0006 50 σ 0.01023 ± 0.00053 Pol Amp 367.7 ± 0.5 const term -1.628 ± 0.419 40 linear term 1.739 ± 0.443 quad term 1.764 ± 0.451 cube term -1.875 ± 0.476 30 20 10 8.8

1.05

1.1

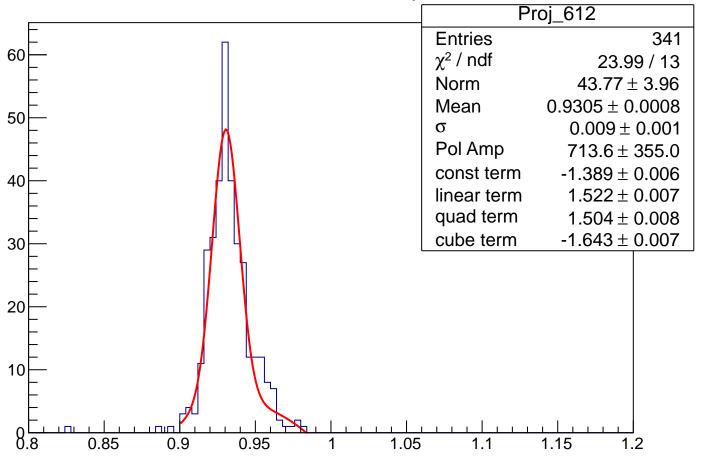
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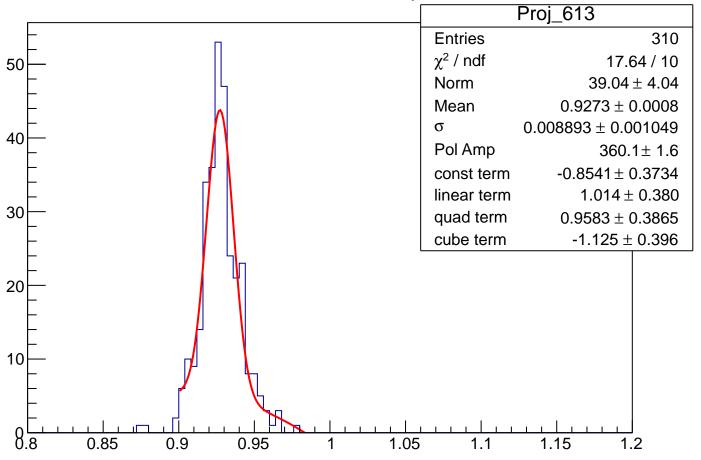
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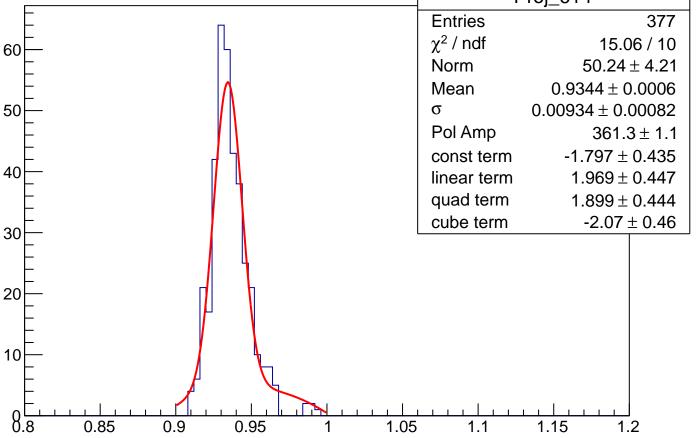
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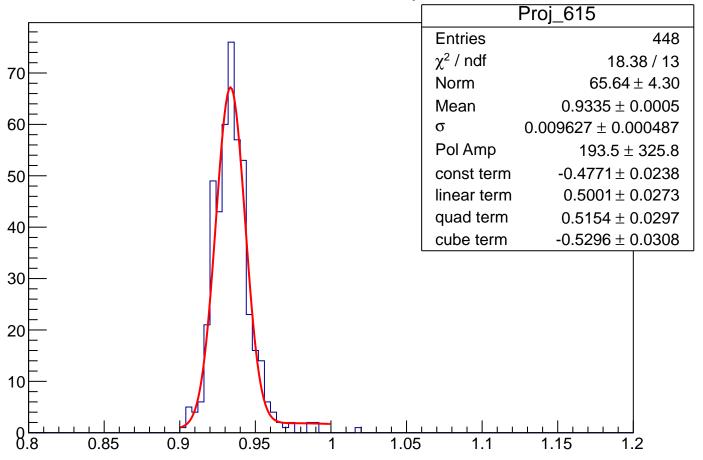
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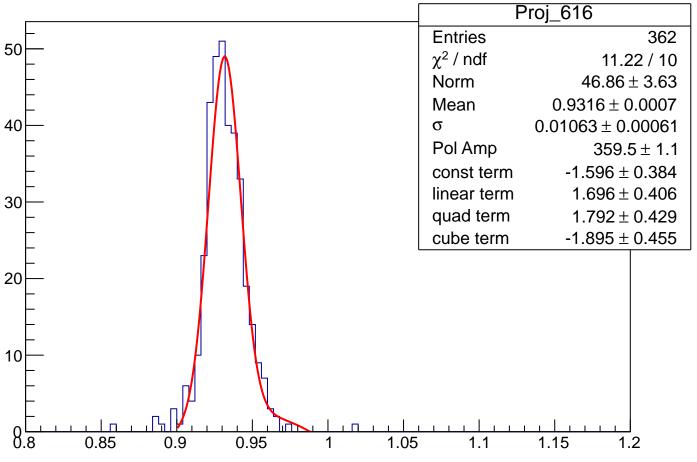


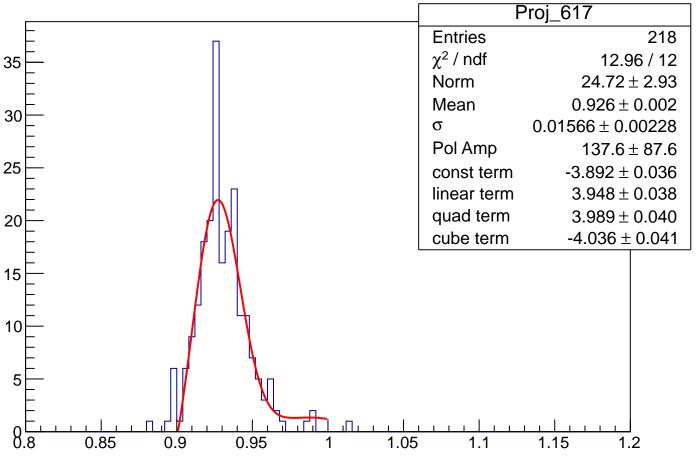


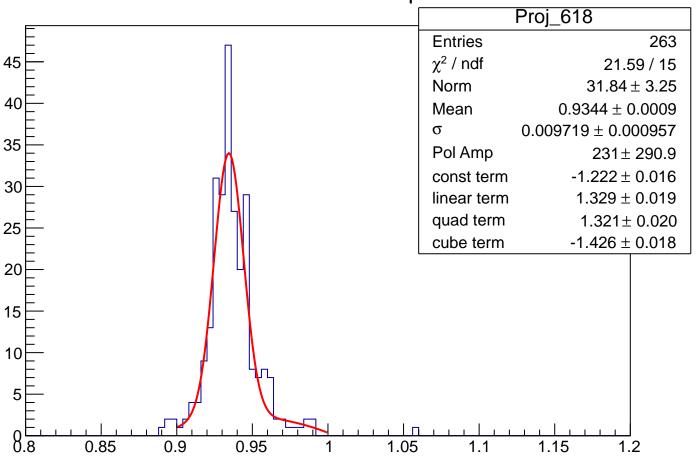
PhiThetaMassPip Proj_614 **Entries** 377 χ^2 / ndf 15.06 / 10 Norm 50.24 ± 4.21 Mean 0.9344 ± 0.0006 σ 0.00934 ± 0.00082 Pol Amp 361.3 ± 1.1 const term -1.797 ± 0.435 linear term 1.969 ± 0.447 quad term 1.899 ± 0.444 cube term -2.07 ± 0.46

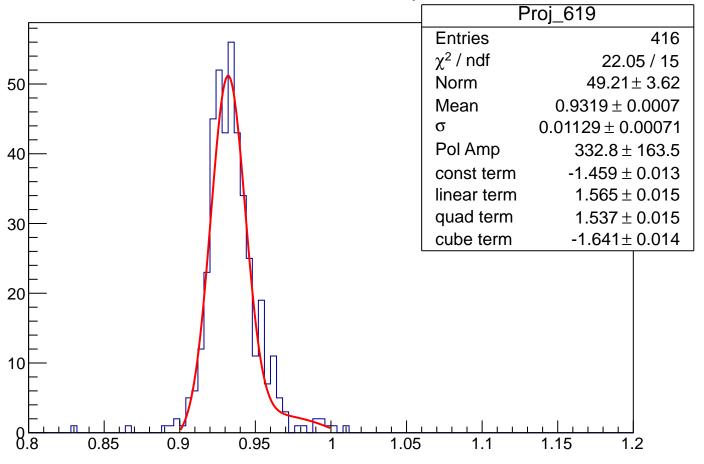


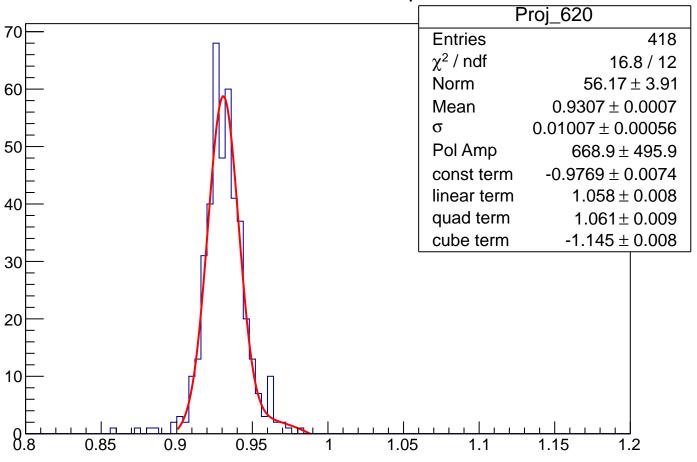


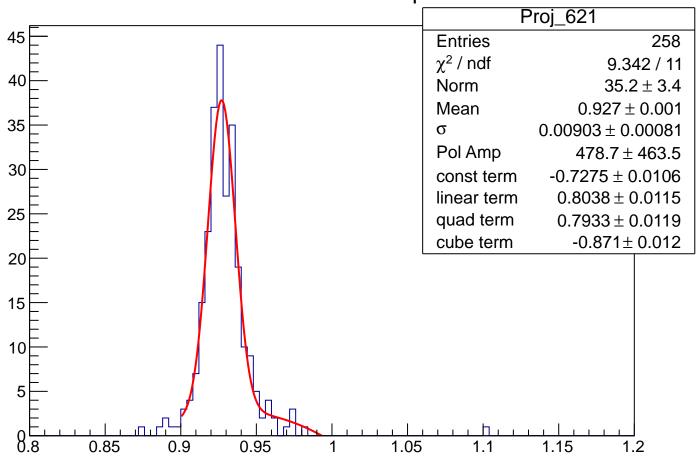


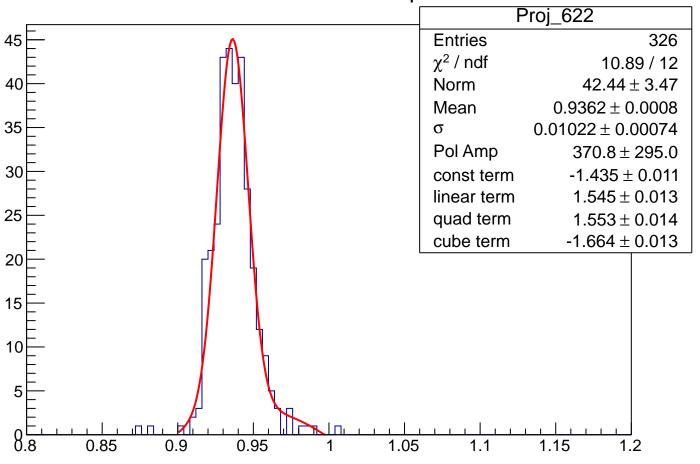


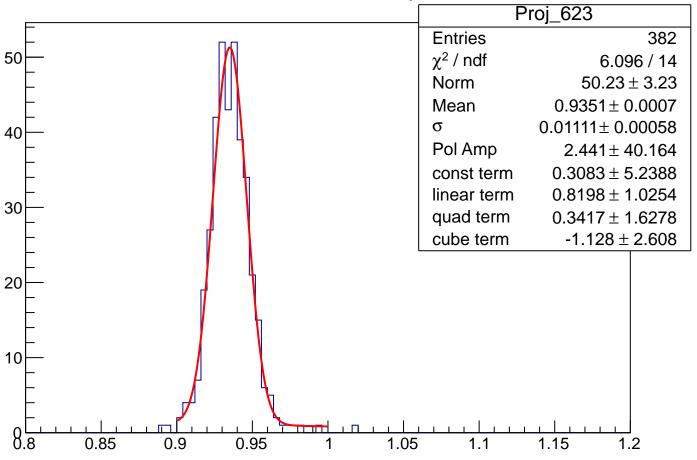


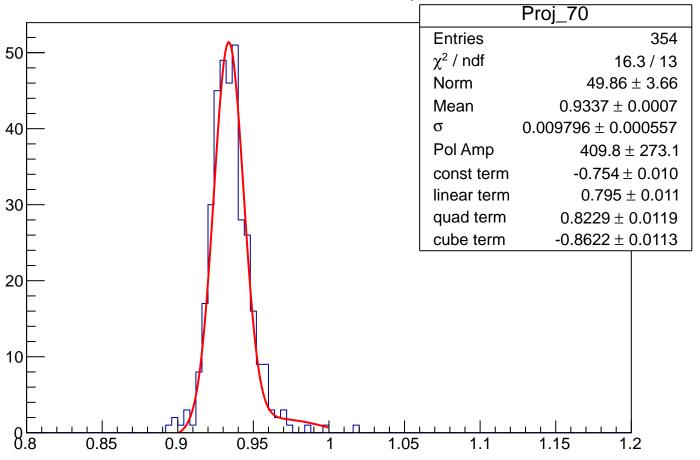


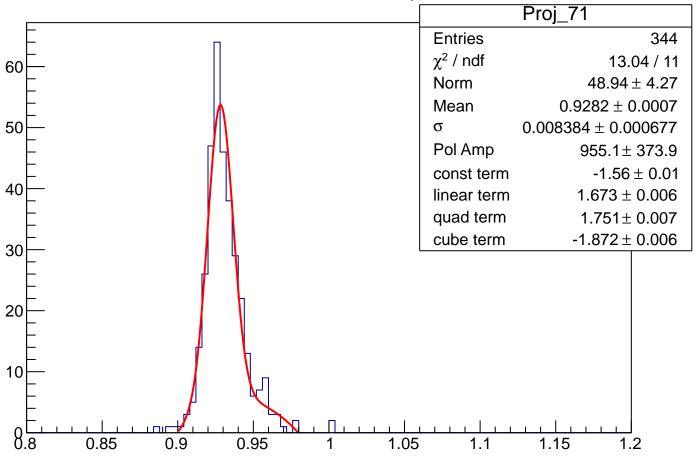


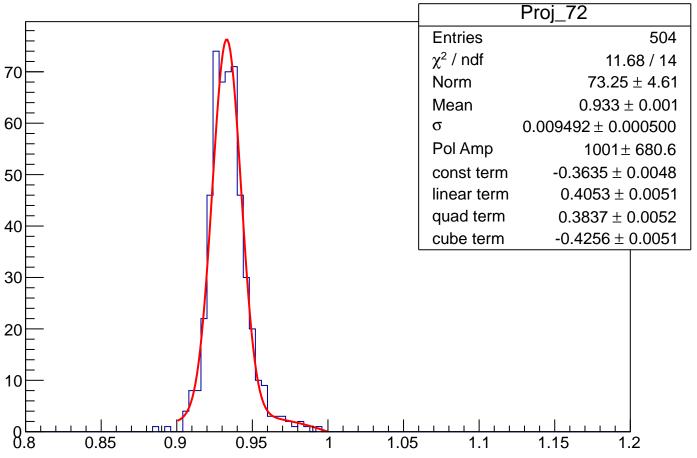


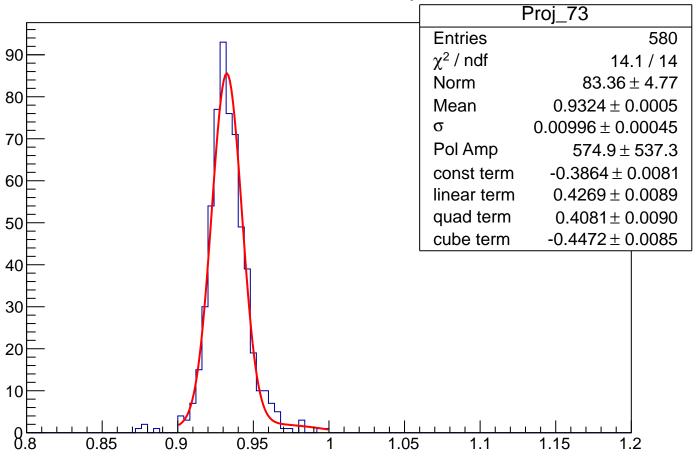


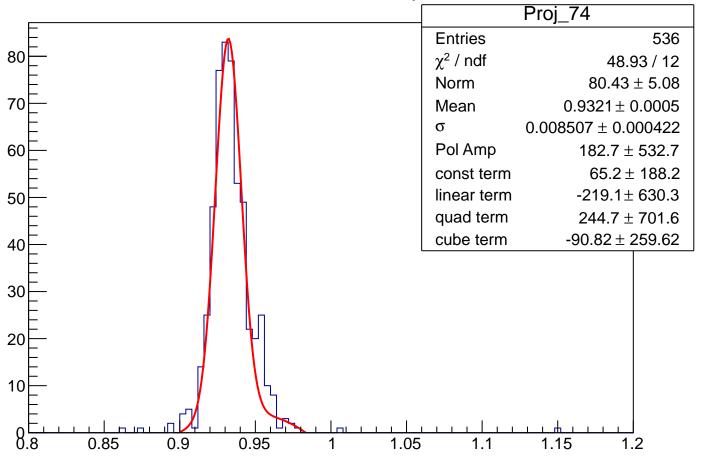


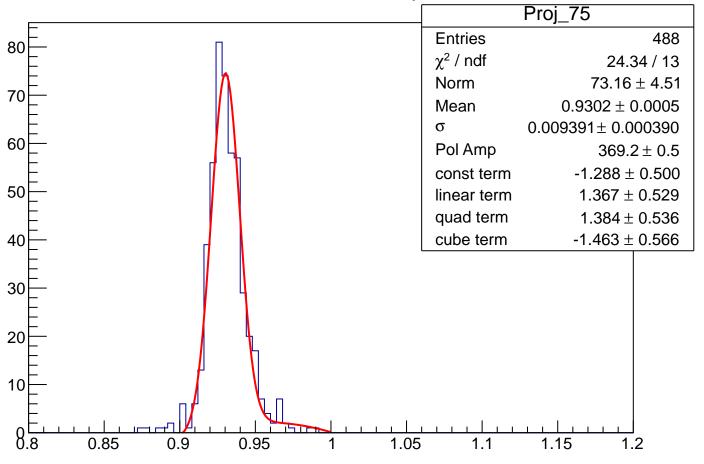


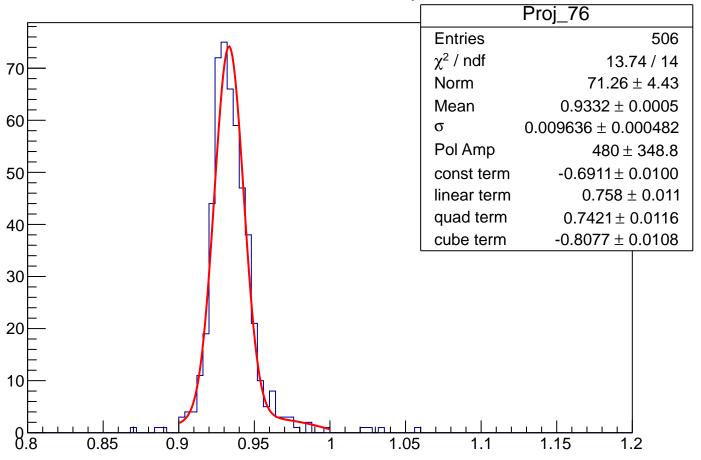


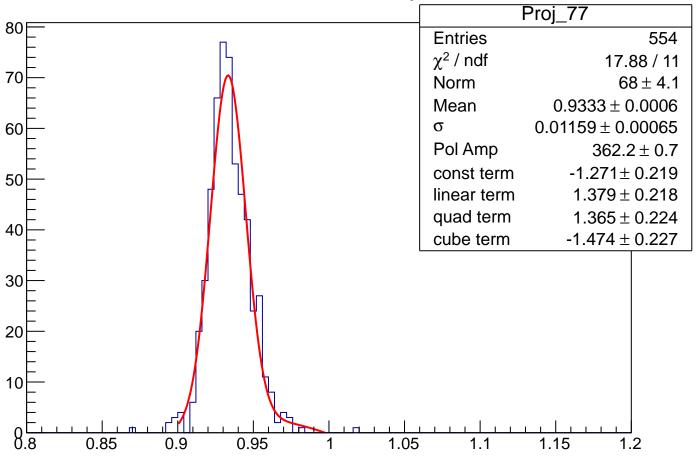


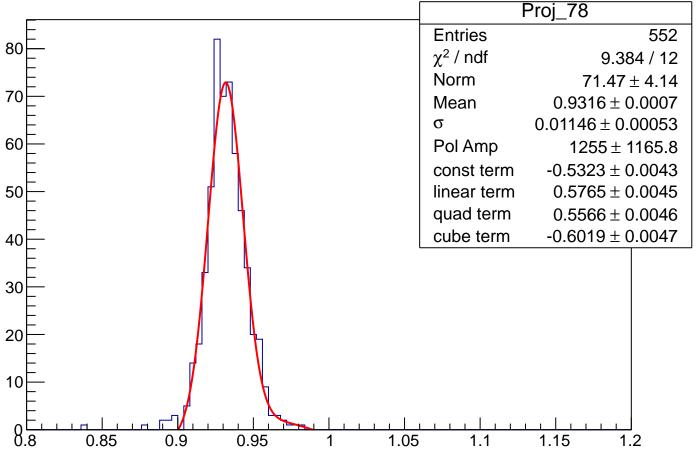


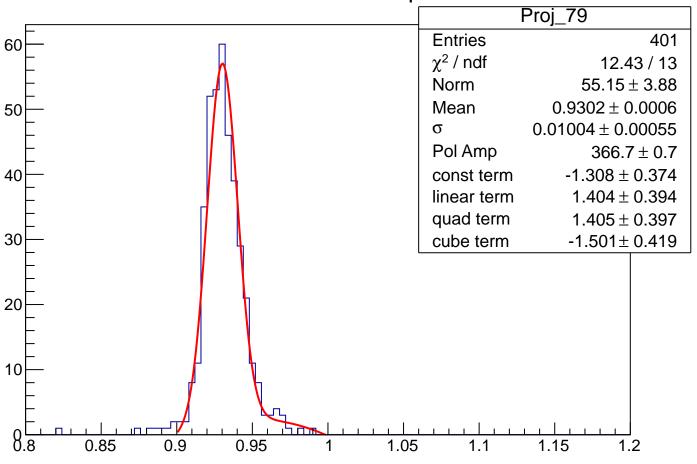












PhiThetaMassPip Proj_710 **Entries** 395 60 χ^2 / ndf 11.35 / 11 Norm 55.79 ± 4.14 0.9337 ± 0.0006 Mean 50 σ 0.0102 ± 0.0010 Pol Amp 366.7 ± 1.0 const term -0.8946 ± 0.3238 40 0.9627 ± 0.3090 linear term quad term 0.9417 ± 0.3203 -1.01 ± 0.31 cube term 30 20 10 8.8 0.85 0.9 0.95 1.05 1.15 1.2

PhiThetaMassPip Proj_711 **Entries** 365 50 χ^2 / ndf 18.14 / 13 Norm 45.6 ± 3.8 0.9323 ± 0.0008 Mean 40 σ 0.0105 ± 0.0008 Pol Amp 288 ± 222.0 const term -1.549 ± 0.018 1.651 ± 0.020 linear term 30 quad term 1.697 ± 0.021 -1.797 ± 0.021 cube term 20 10

1.05

1.15

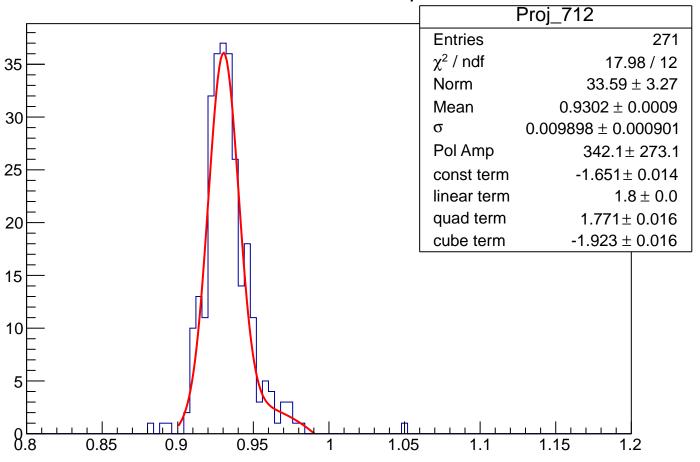
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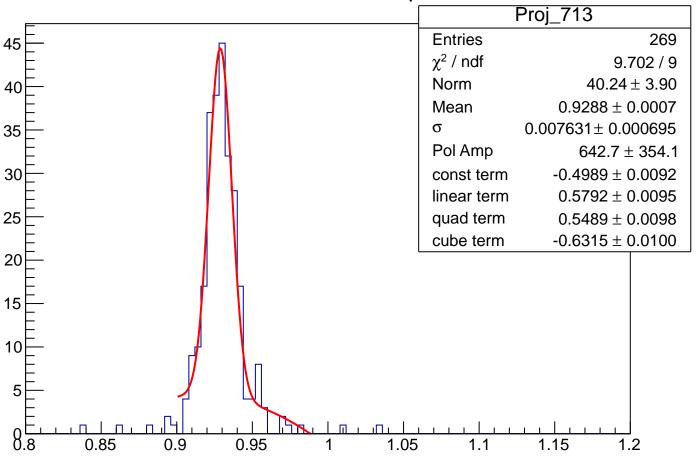
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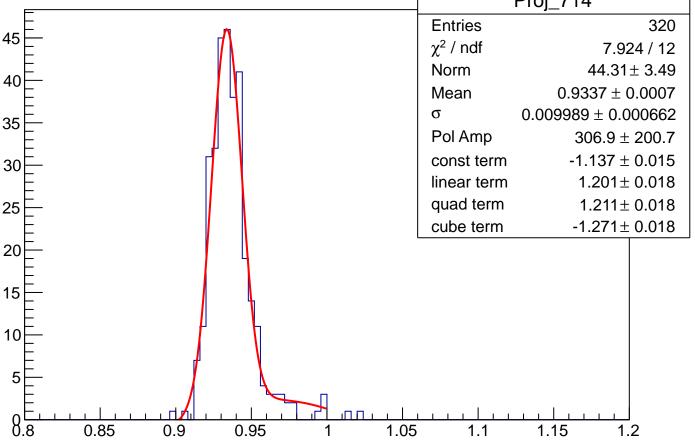
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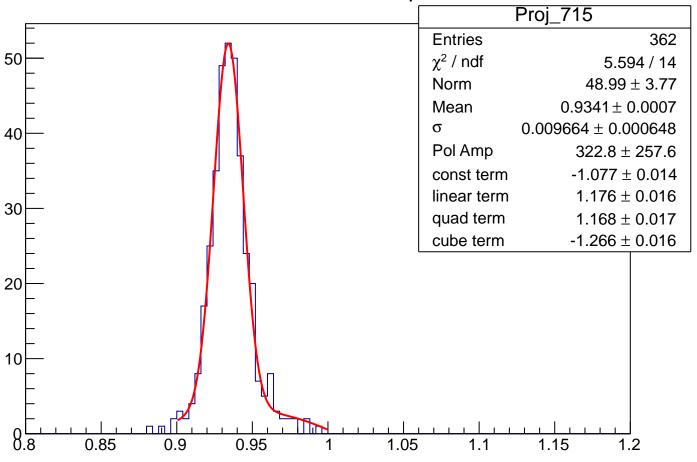
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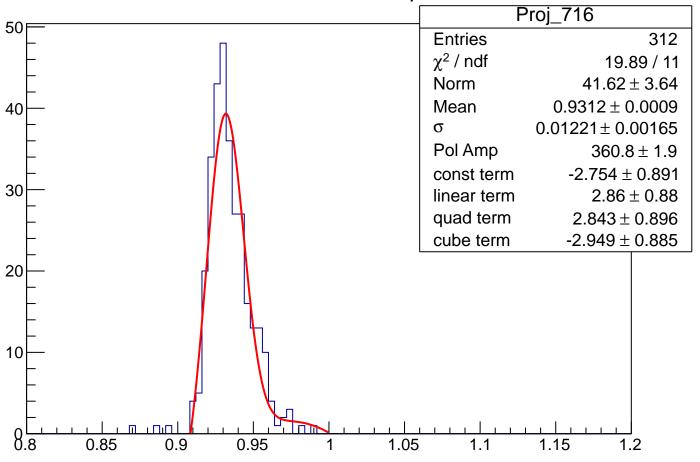


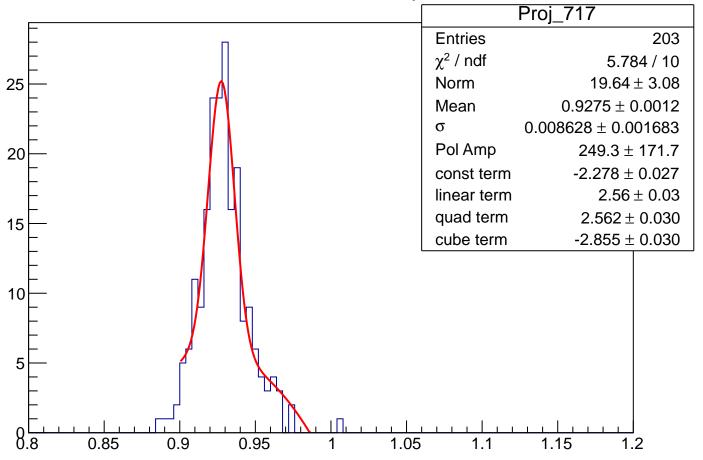


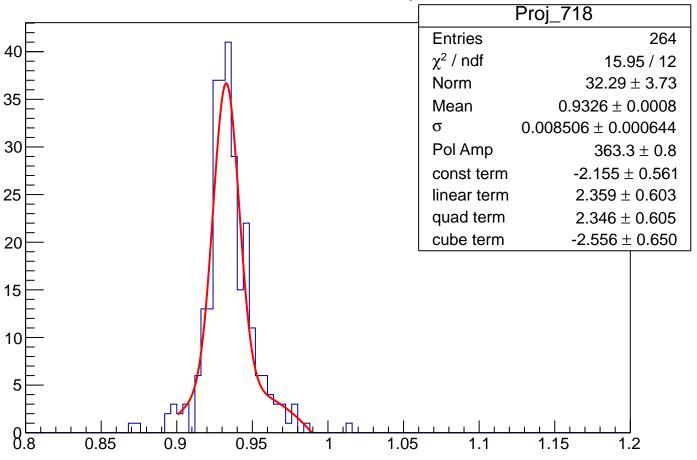
PhiThetaMassPip Proj_714 **Entries** 320 χ^2 / ndf 7.924 / 12 Norm 44.31 ± 3.49 Mean 0.9337 ± 0.0007 σ 0.009989 ± 0.000662 Pol Amp 306.9 ± 200.7 const term -1.137 ± 0.015 1.201 ± 0.018 linear term quad term 1.211 ± 0.018 cube term -1.271 ± 0.018

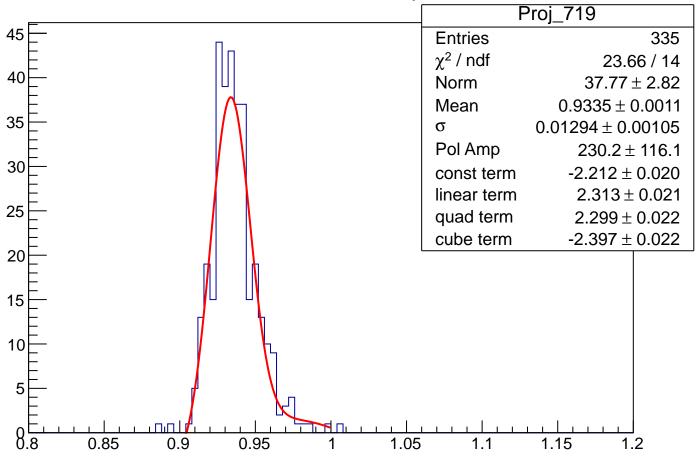


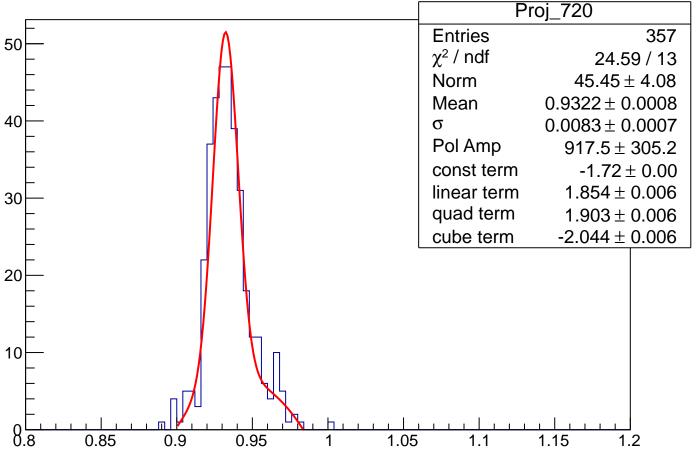


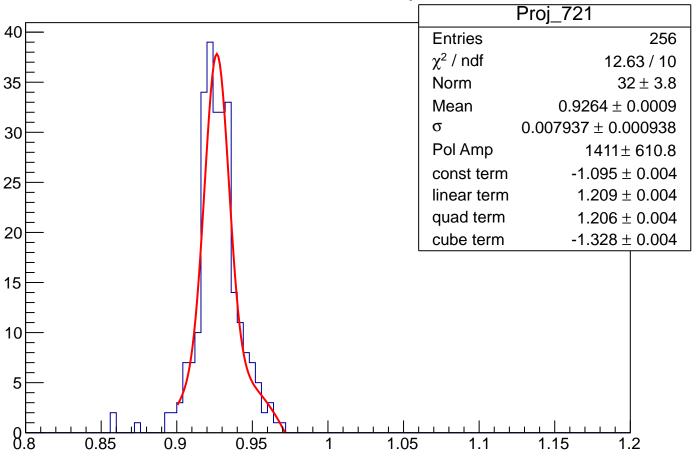


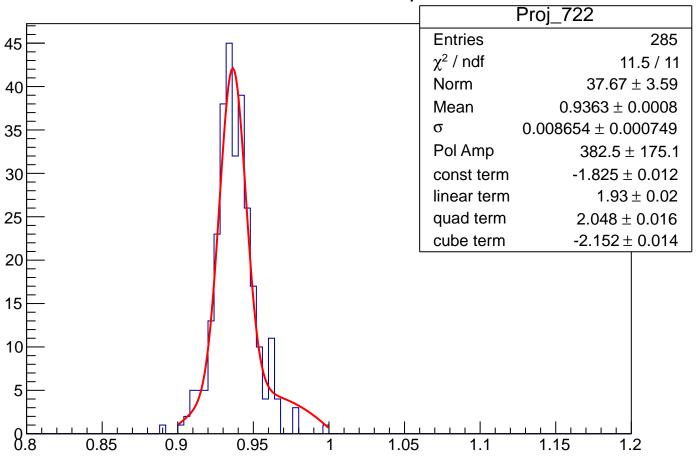


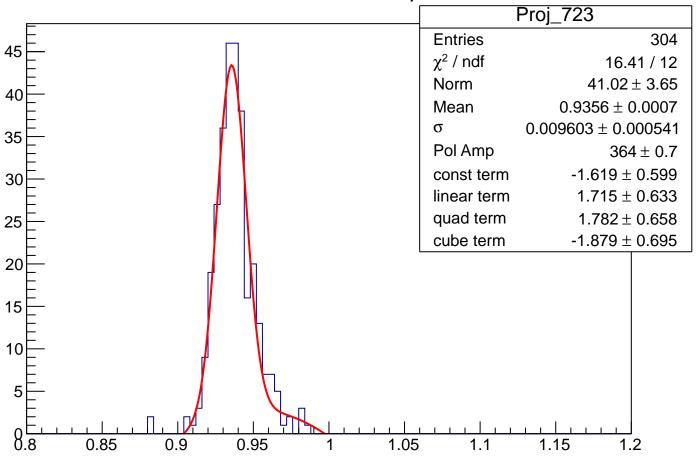


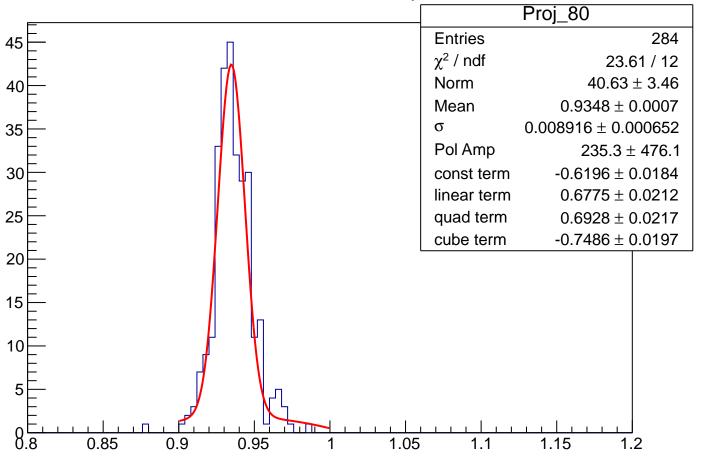


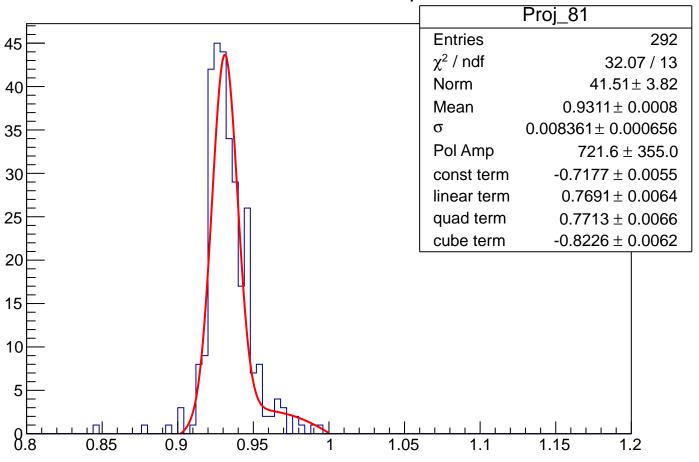


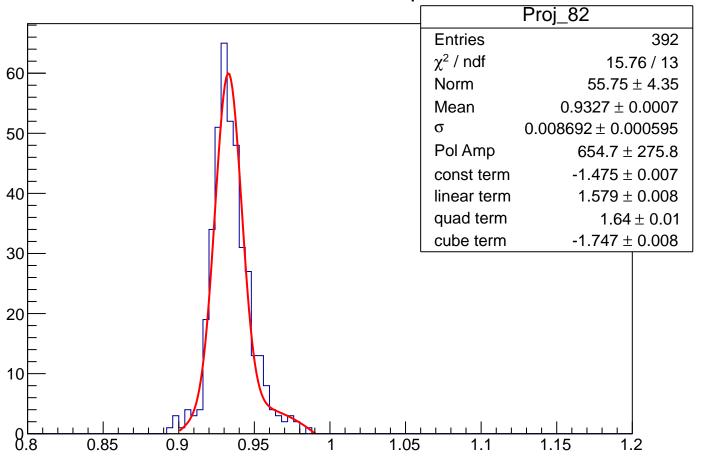


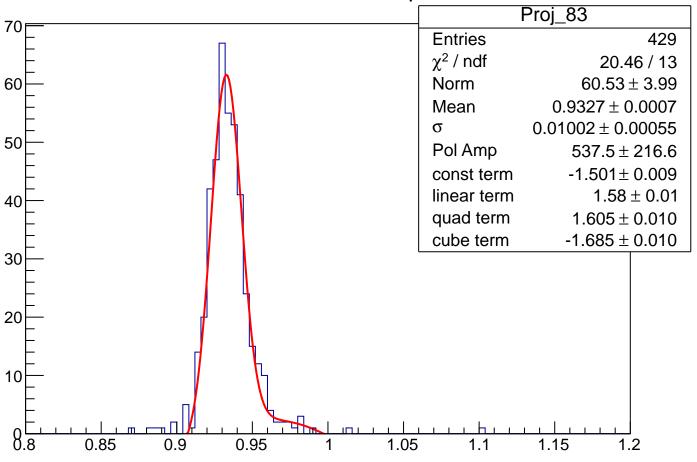


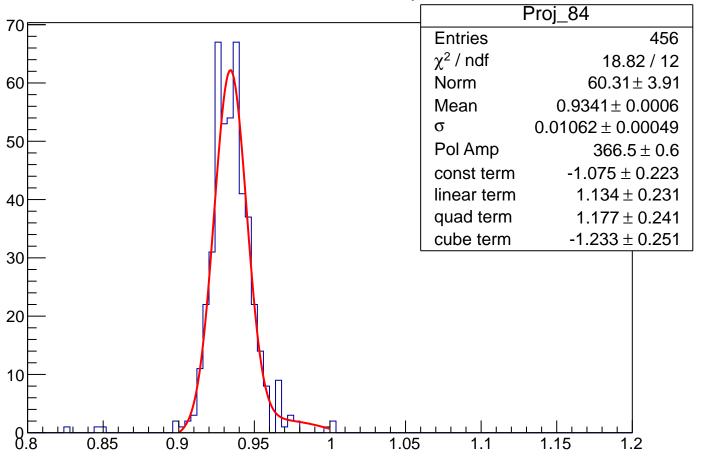


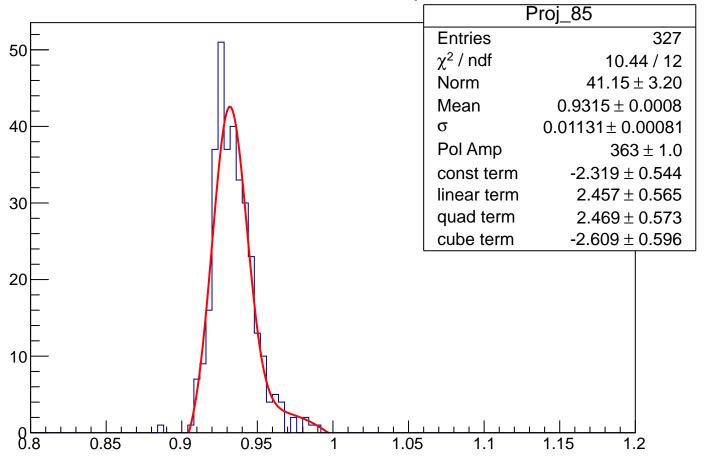


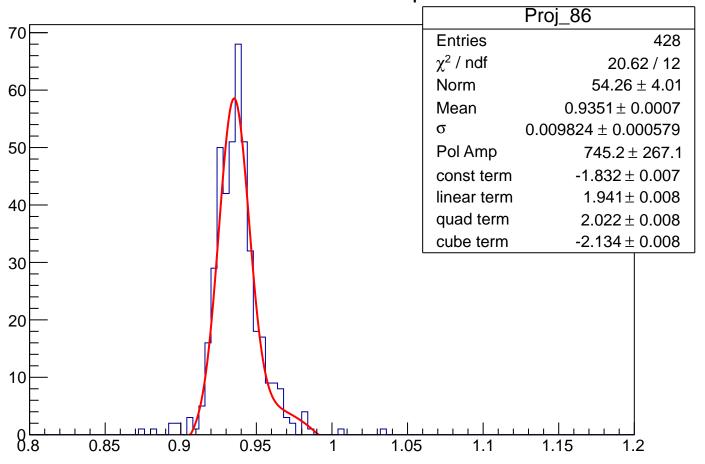


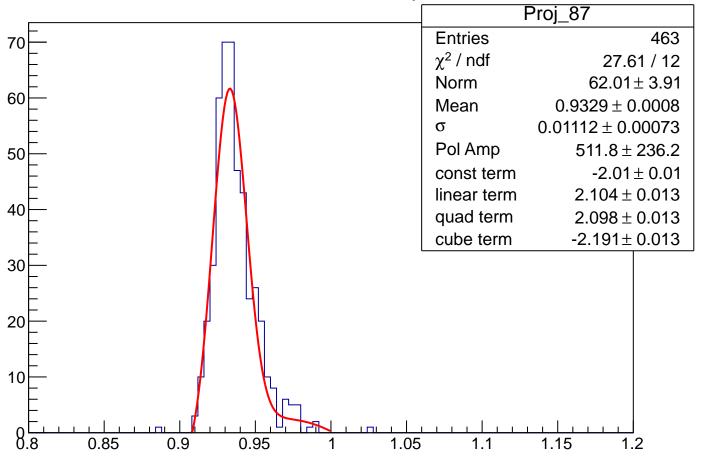




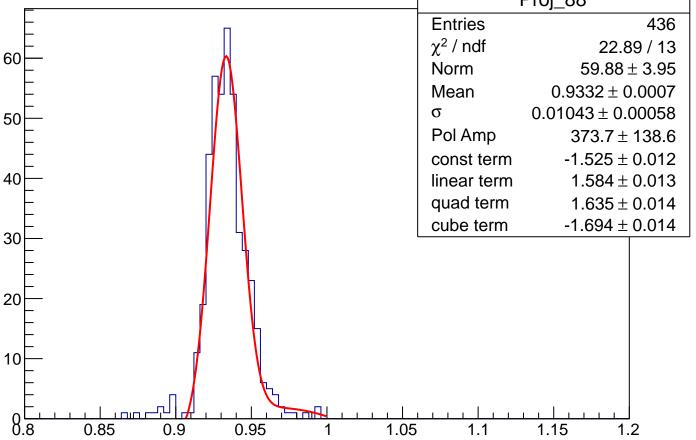


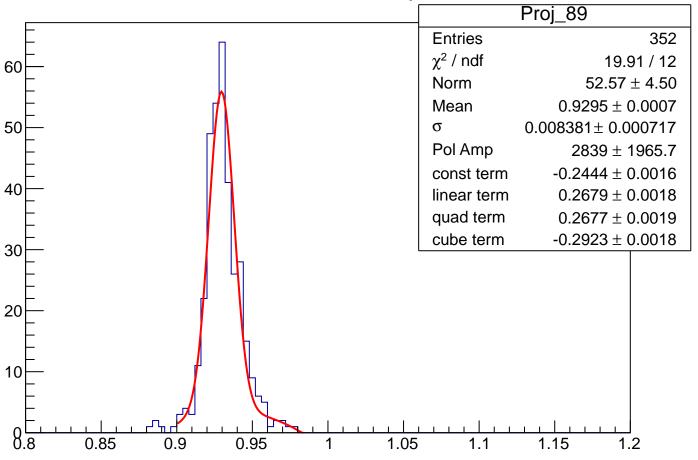






PhiThetaMassPip Proj_88 **Entries** 436 χ^2 / ndf 22.89 / 13 Norm 59.88 ± 3.95 Mean 0.9332 ± 0.0007 σ 0.01043 ± 0.00058 Pol Amp 373.7 ± 138.6 const term -1.525 ± 0.012 linear term 1.584 ± 0.013 quad term 1.635 ± 0.014 cube term -1.694 ± 0.014





PhiThetaMassPip Proj_810 **Entries** 286 45 χ^2 / ndf 8.24 / 11 Norm 35.32 ± 3.25 40 Mean 0.9338 ± 0.0008 σ 0.01066 ± 0.00070 35 Pol Amp 361.4 ± 0.9 30 const term -2.471 ± 0.604 linear term 2.64 ± 0.64 25 quad term 2.697 ± 0.655 cube term -2.871 ± 0.694 20 15 10 5

1.05

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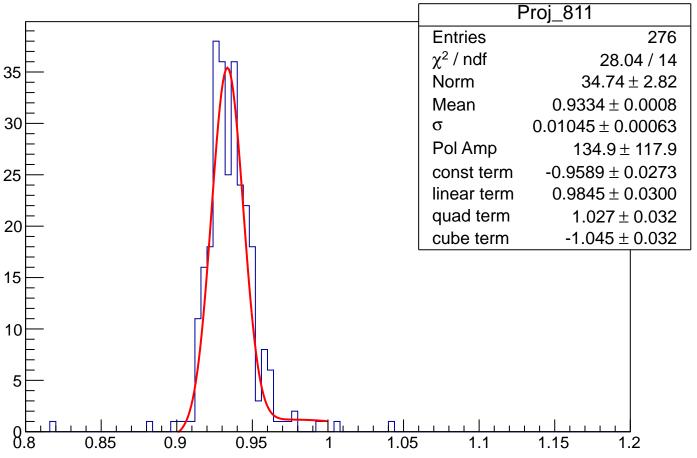
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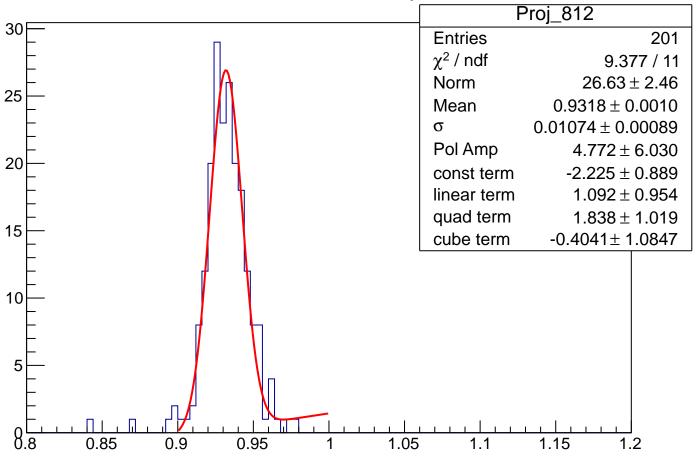
0.8 8.8

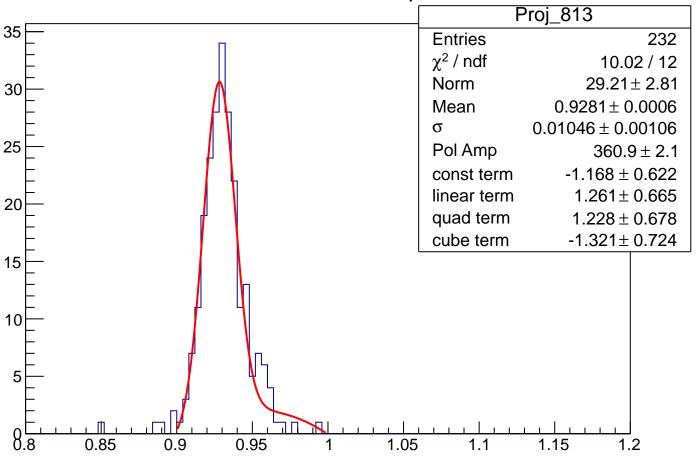
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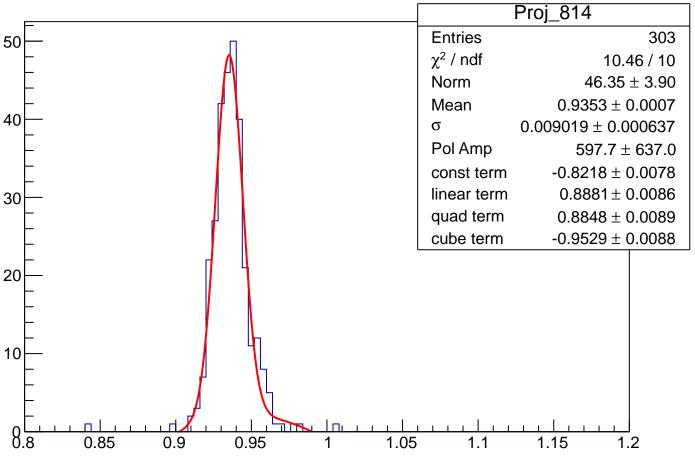
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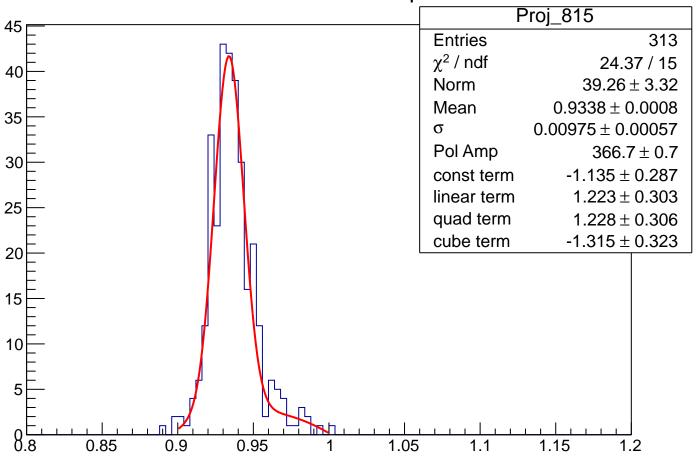
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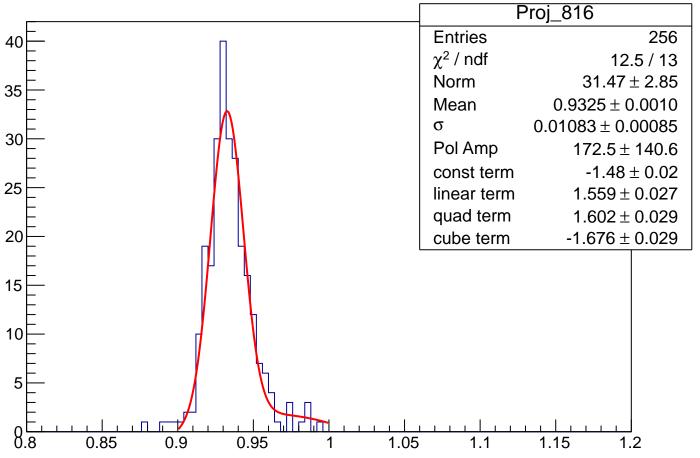


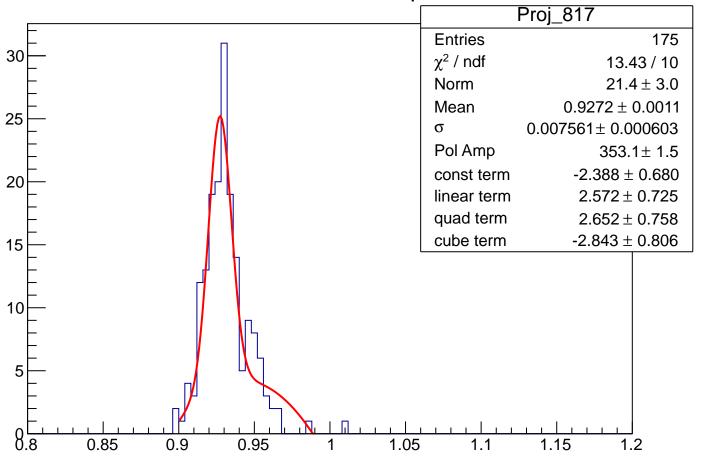


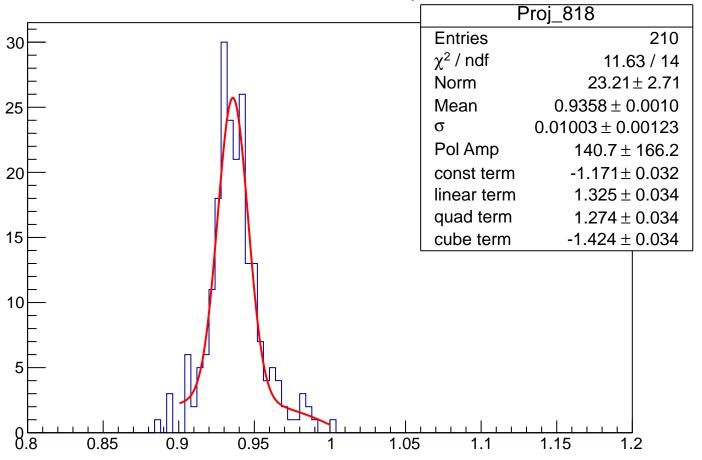












PhiThetaMassPip Proj_819 **Entries** 276 35 χ^2 / ndf 8.483 / 13 Norm 33.79 ± 2.66 30 0.9355 ± 0.0008 Mean σ 0.0127 ± 0.0010 Pol Amp 1.12 ± 3.23 25 const term 465.4 ± 4.0 -993.9 ± 4.4 linear term 20 quad term 520.4 ± 4.6 10.11± 4.60 cube term 15 10 5

1.05

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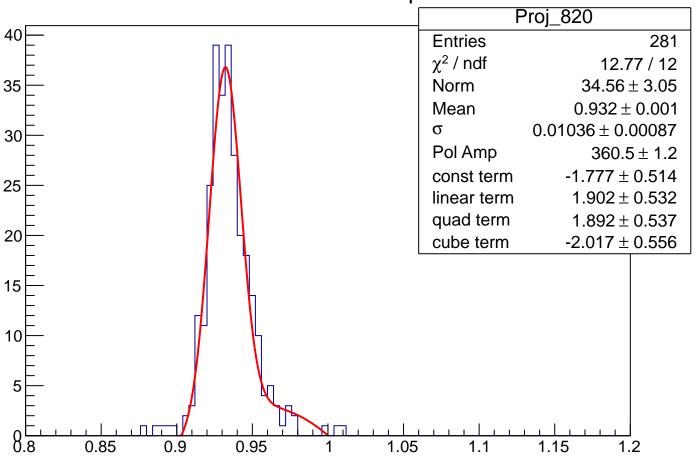
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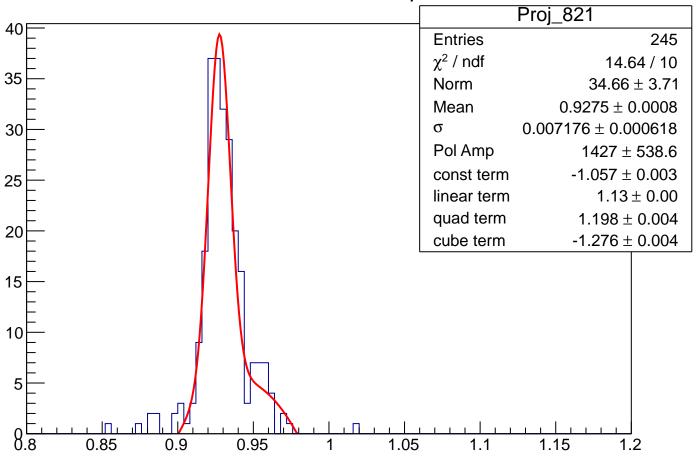
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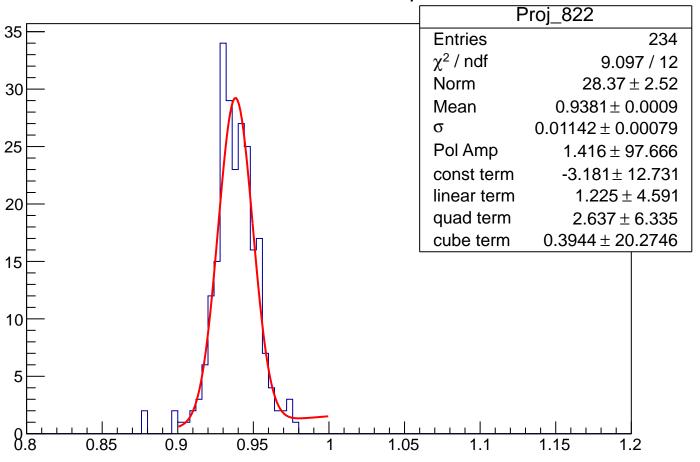
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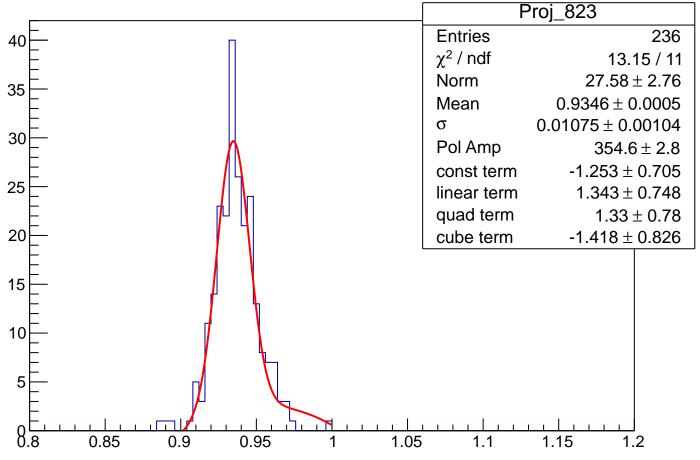
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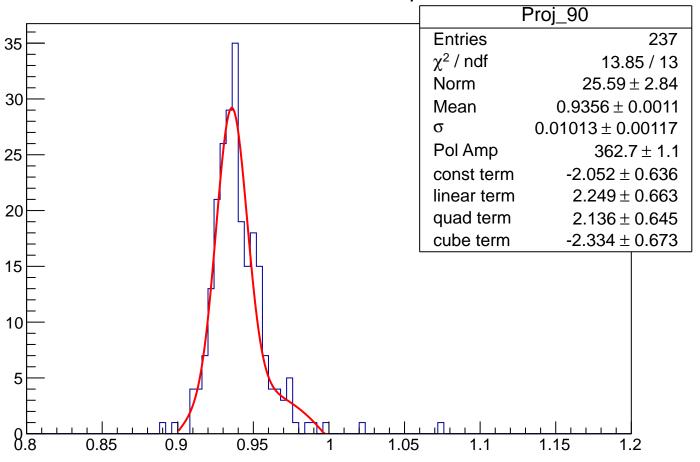
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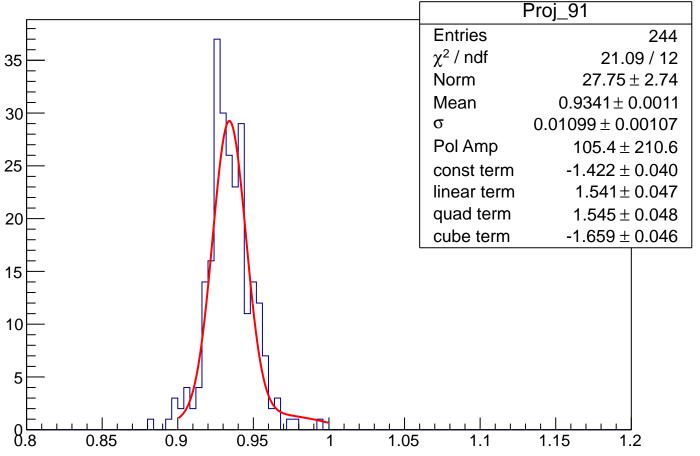


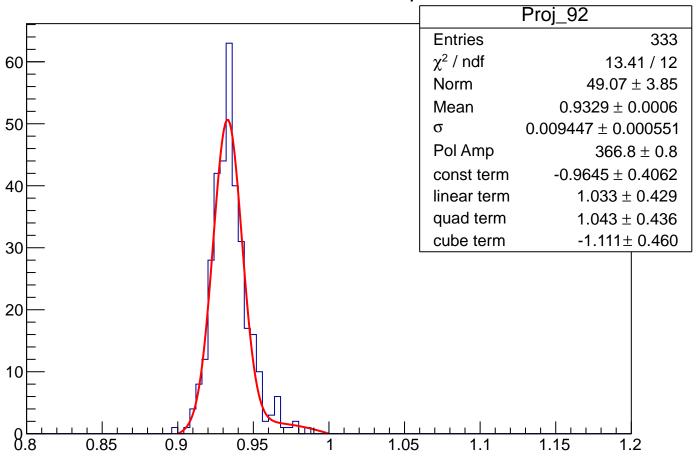


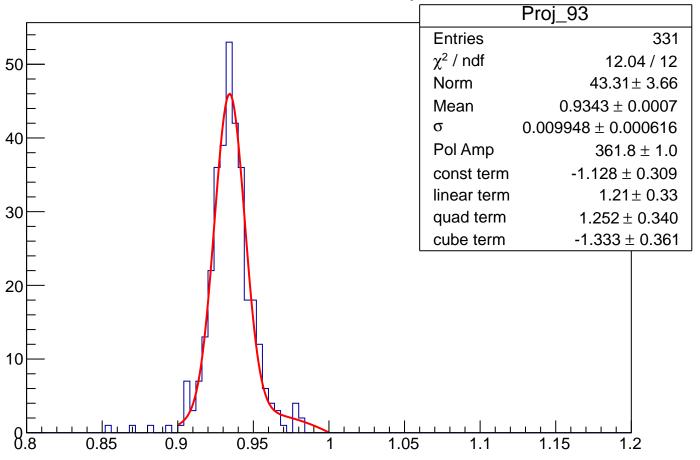


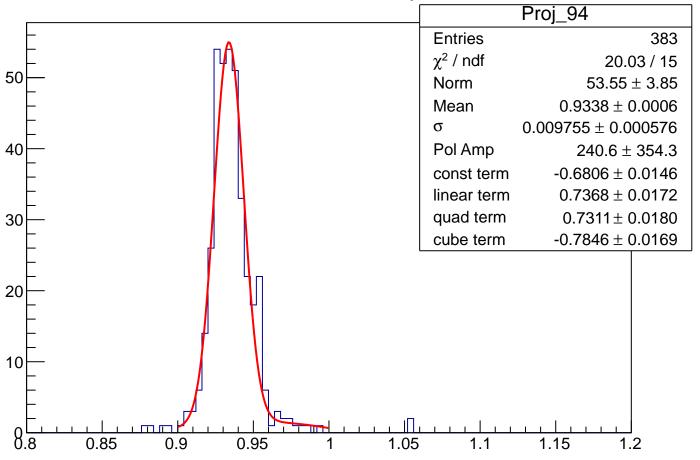


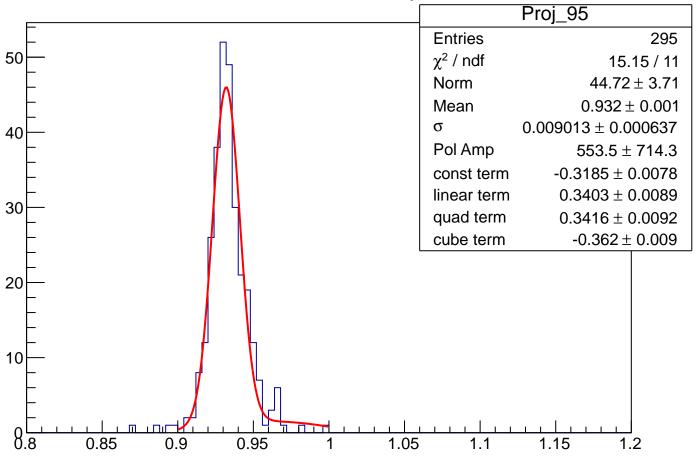


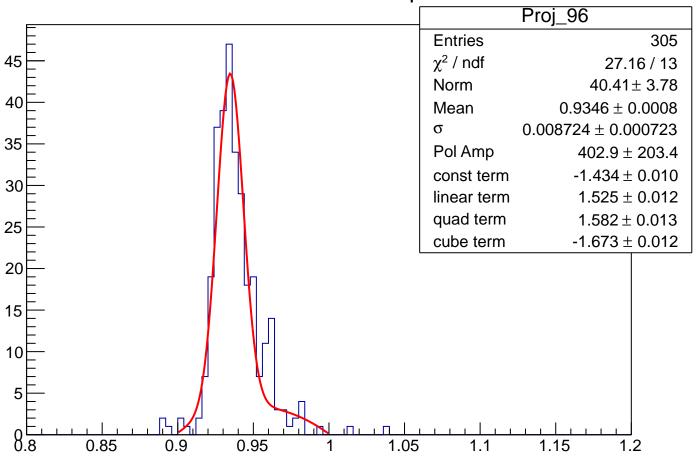


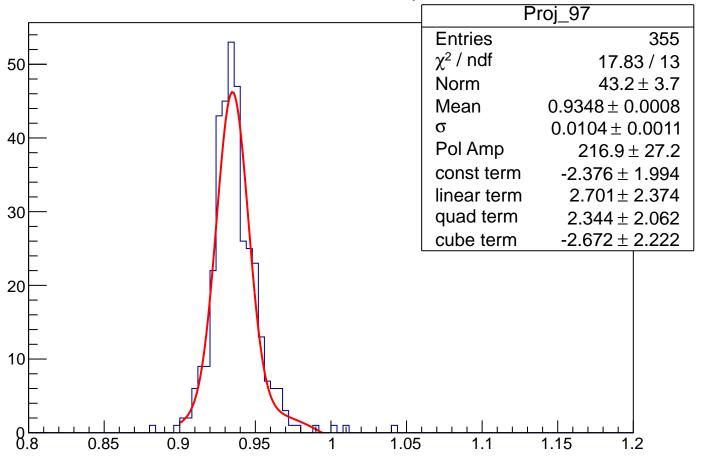


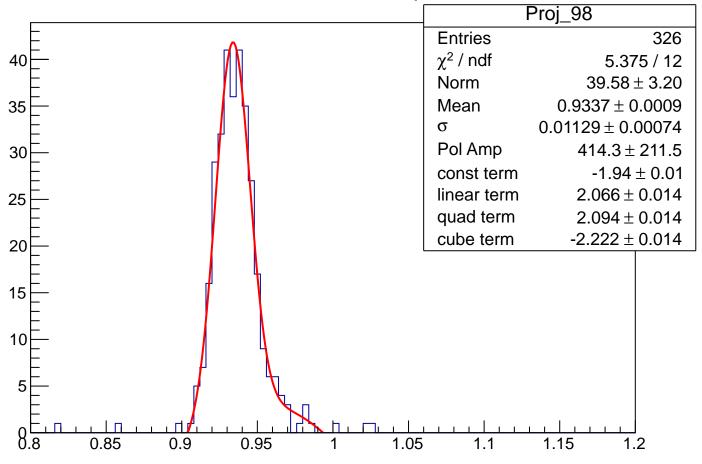


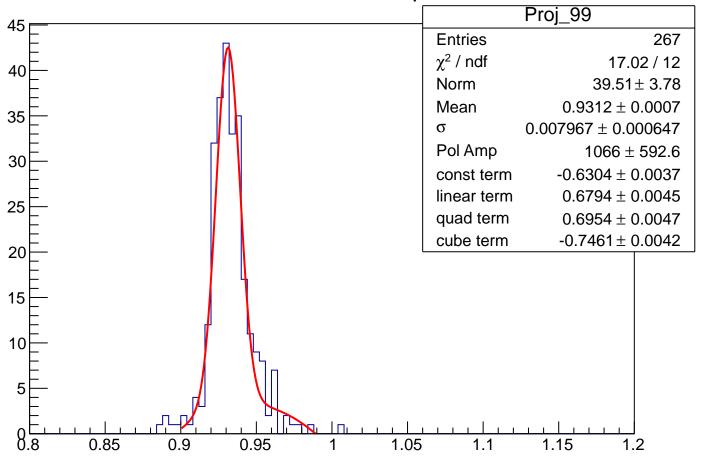


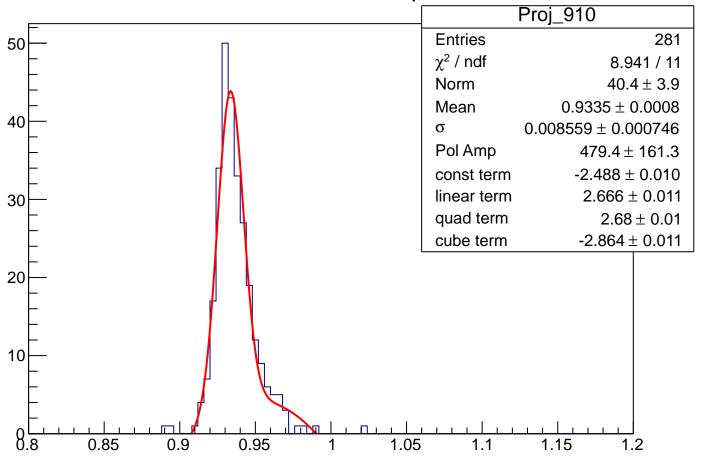


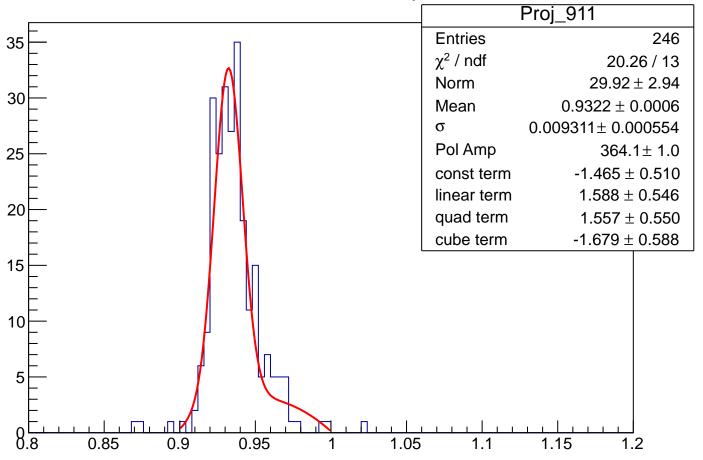


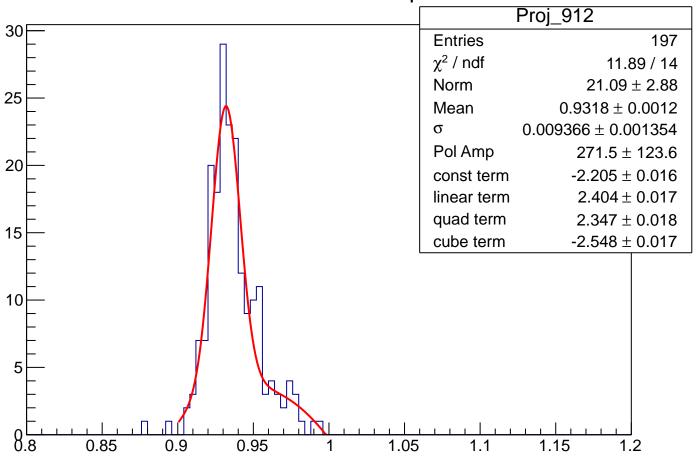


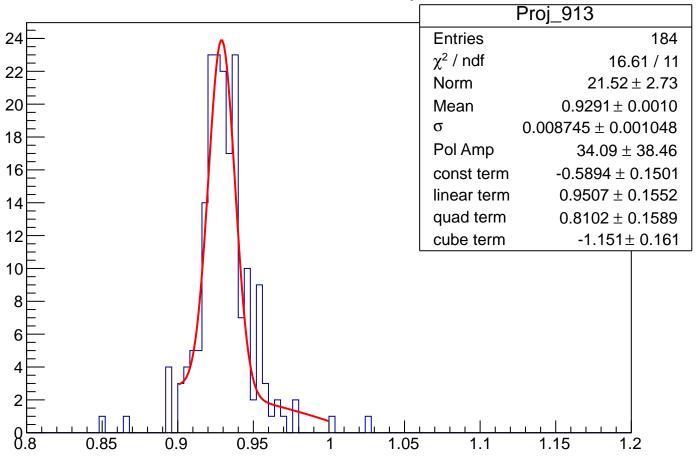


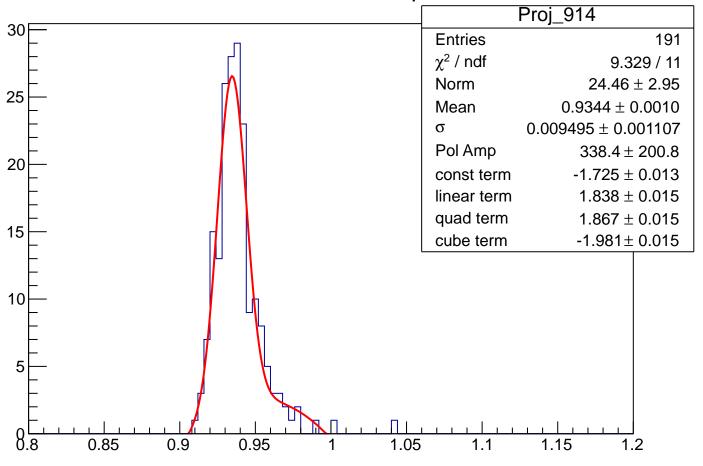


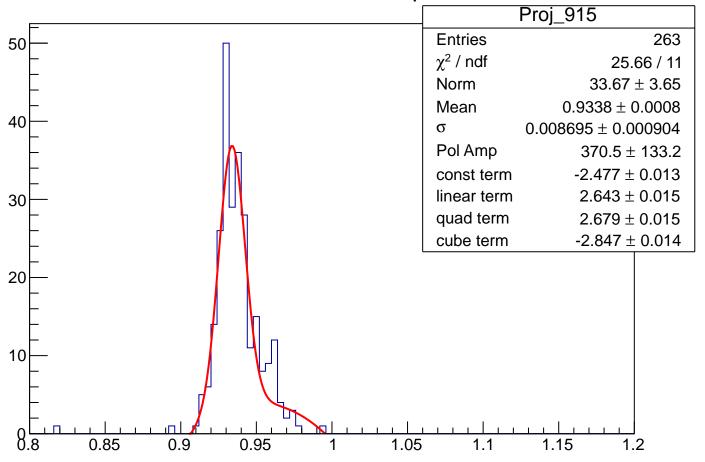


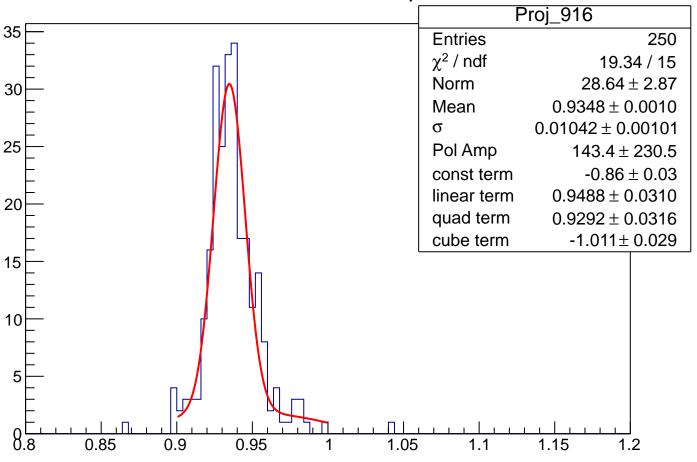


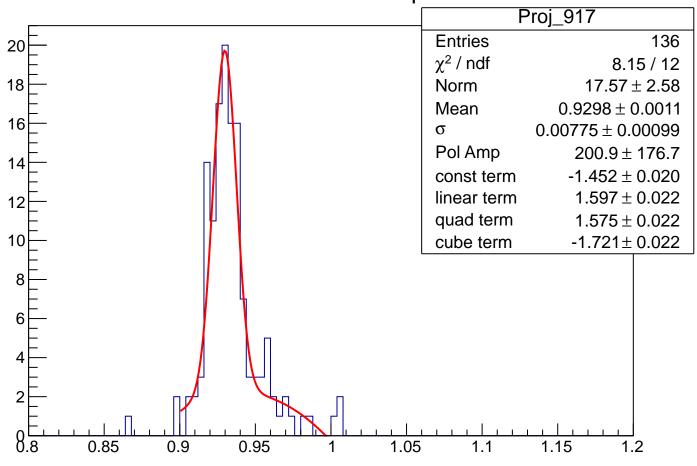




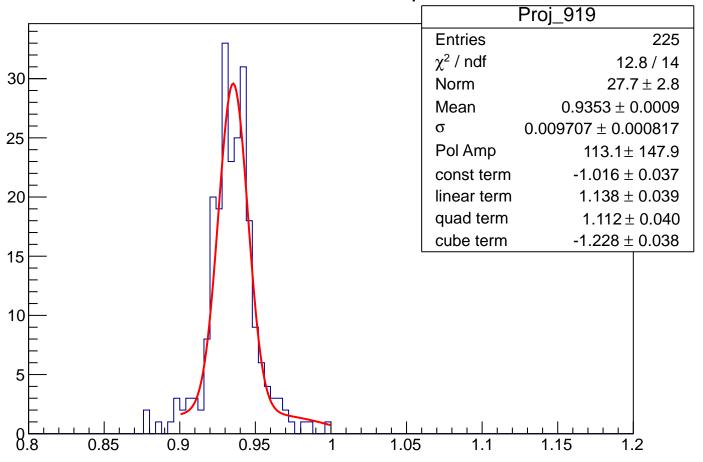


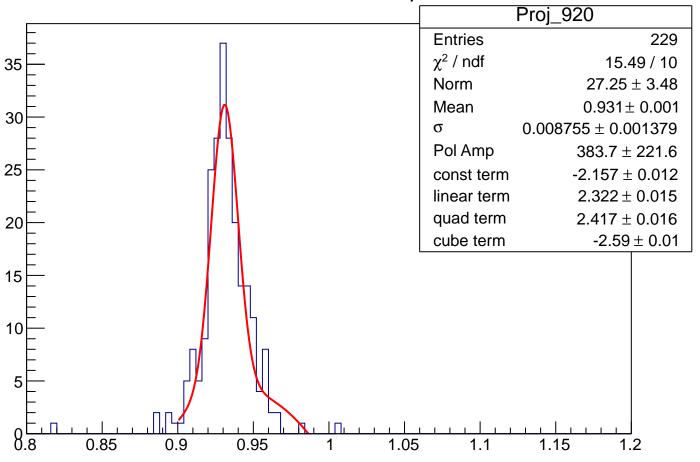


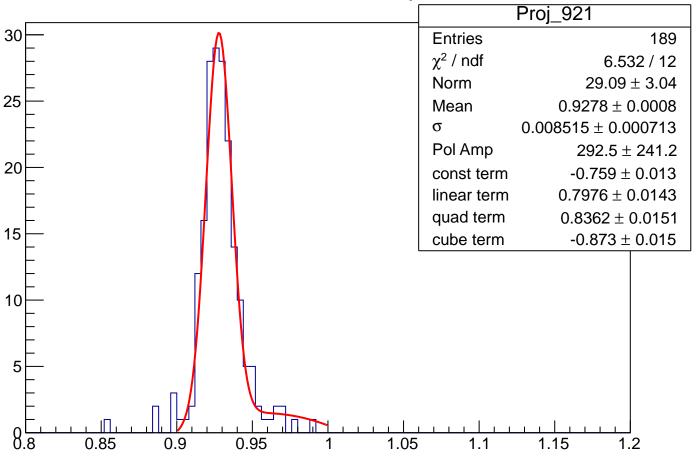


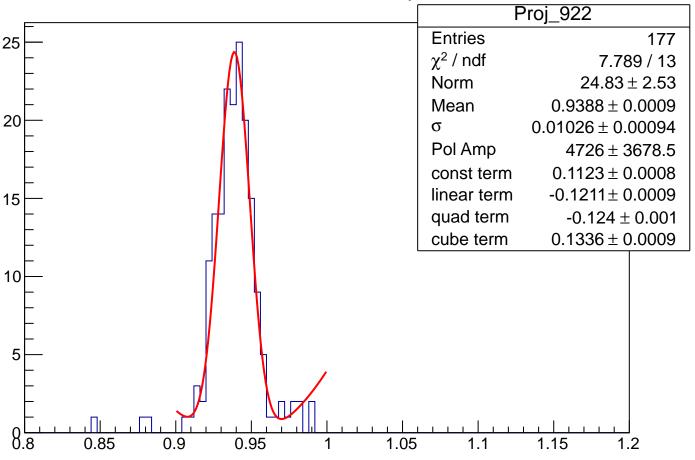


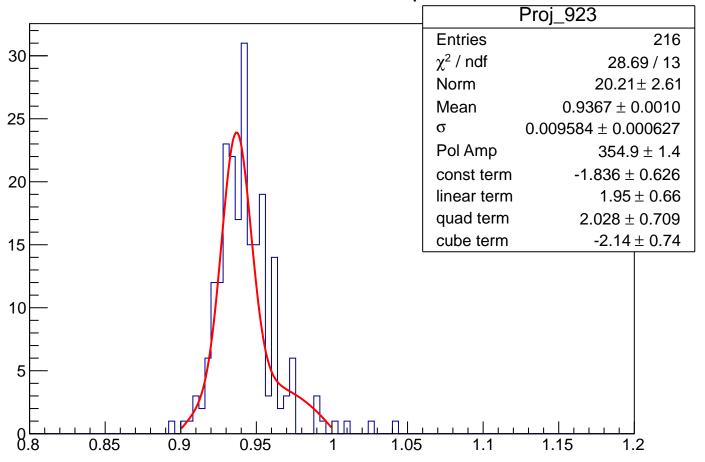
PhiThetaMassPip Proj_918 **Entries** 152 18 χ^2 / ndf 9.407 / 12 Norm 19.28 ± 5.82 16 Mean 0.9353 ± 0.0021 σ 0.01202 ± 0.00260 14 Pol Amp 558.8 ± 184.7 12 const term 146.5 ± 92.6 linear term -464.9 ± 291.3 quad term 10 491.6 ± 305.1 cube term -173.1± 106.5 8 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2











PhiThetaMassPip Proj_100 **Entries** 162 22 χ^2 / ndf 6.506/920 Norm 16.59 ± 3.12 0.9365 ± 0.0016 Mean 18 σ 0.008923 ± 0.001858 16 Pol Amp 1268 ± 633.3 const term -1.678 ± 0.004 14 linear term 1.781 ± 0.004 quad term 1.891 ± 0.005 12 cube term -2.002 ± 0.005 10 8 6 4 2 0.8 8.8 0.85 0.9 0.95 1.05 1.15

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PhiThetaMassPip Proj_101 **Entries** 172 25 χ^2 / ndf 21.32 / 8 Norm 21.41 ± 2.72 0.935 ± 0.001 Mean 20 σ 0.009764 ± 0.001256 Pol Amp 131± 145.5 const term -1.672 ± 0.036 linear term 1.754 ± 0.042 15 quad term 1.825 ± 0.044 cube term -1.9 ± 0.0 10 5

1.05

1.15

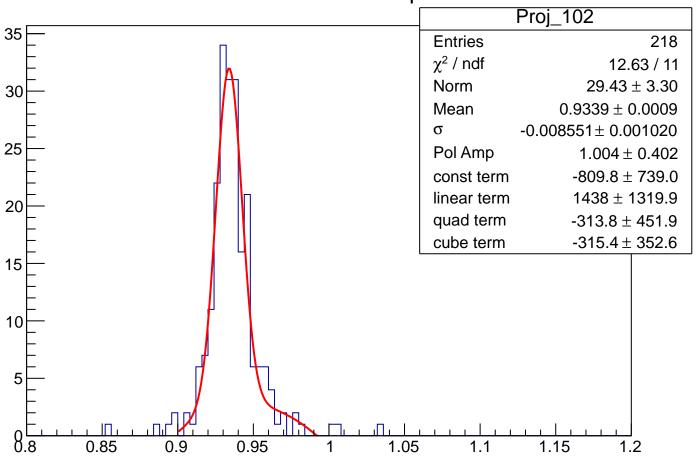
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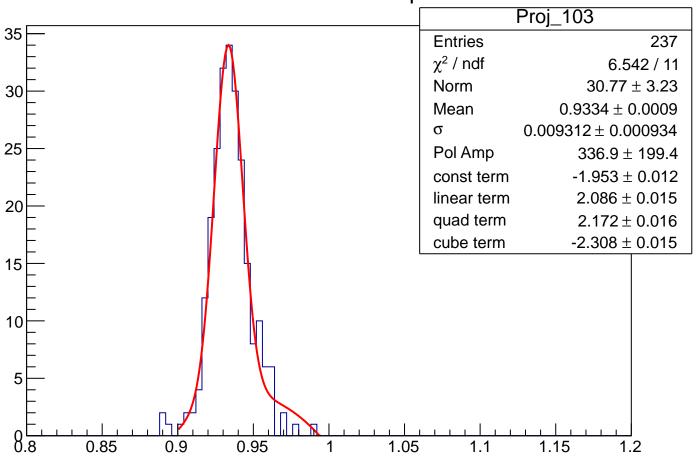
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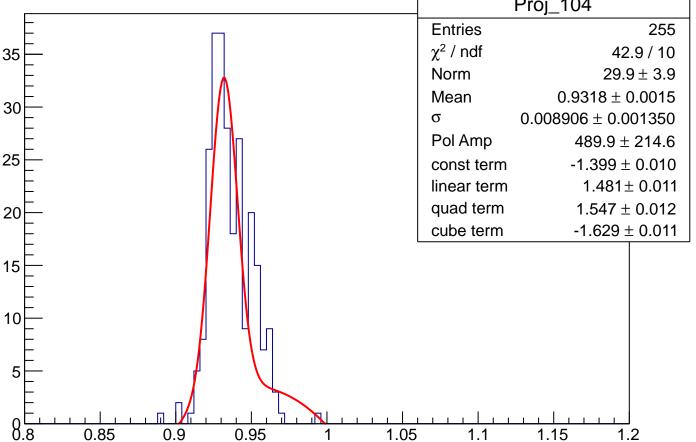
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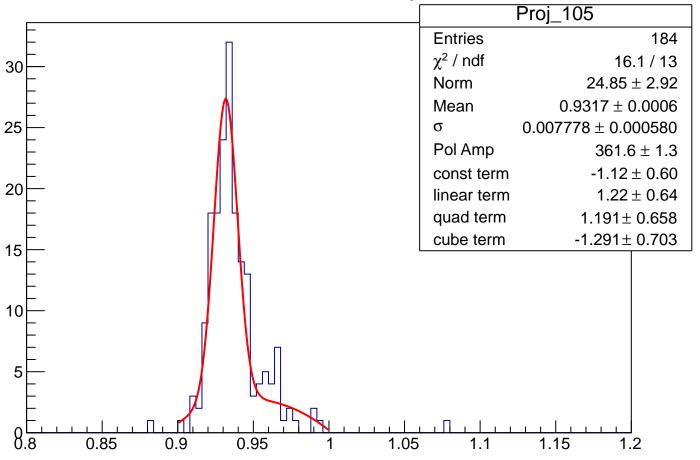
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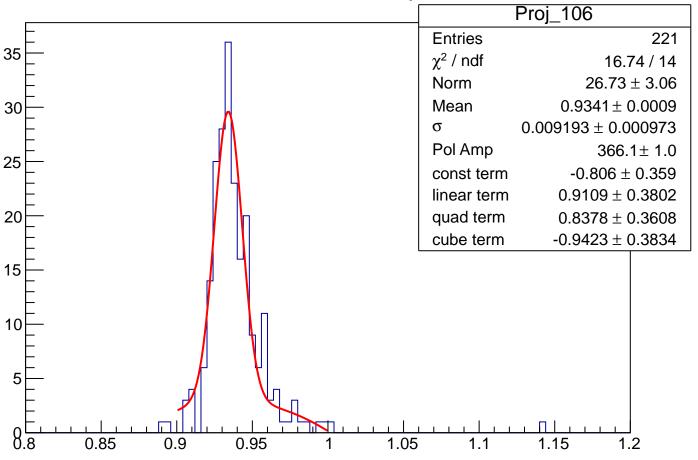


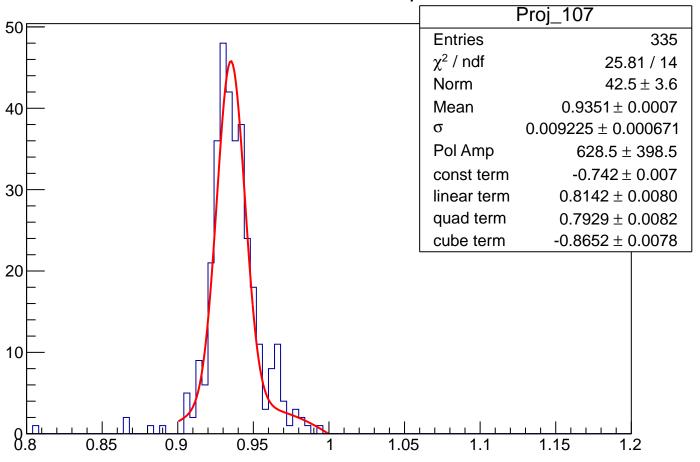


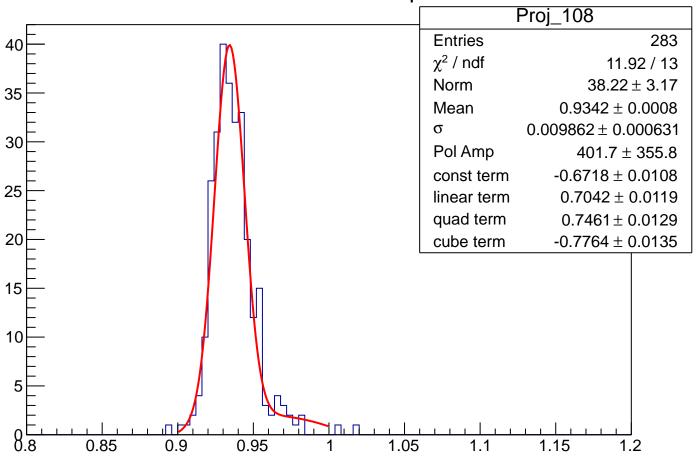
PhiThetaMassPip Proj_104 **Entries** 255 χ^2 / ndf 42.9 / 10 Norm 29.9 ± 3.9 Mean 0.9318 ± 0.0015 σ 0.008906 ± 0.001350 Pol Amp 489.9 ± 214.6 const term -1.399 ± 0.010 1.481 ± 0.011 linear term quad term 1.547 ± 0.012 cube term -1.629 ± 0.011

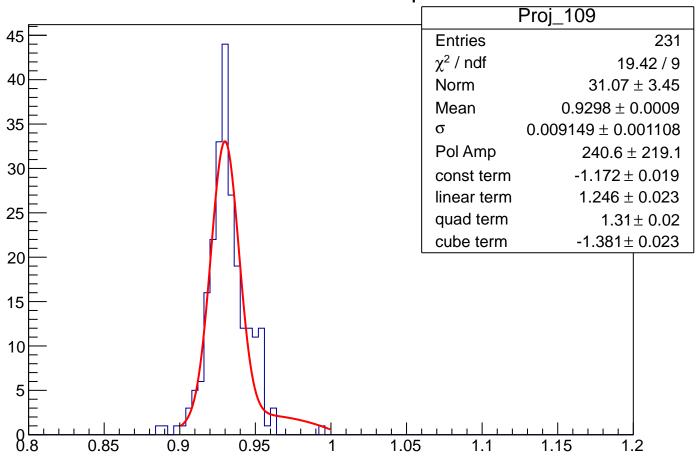


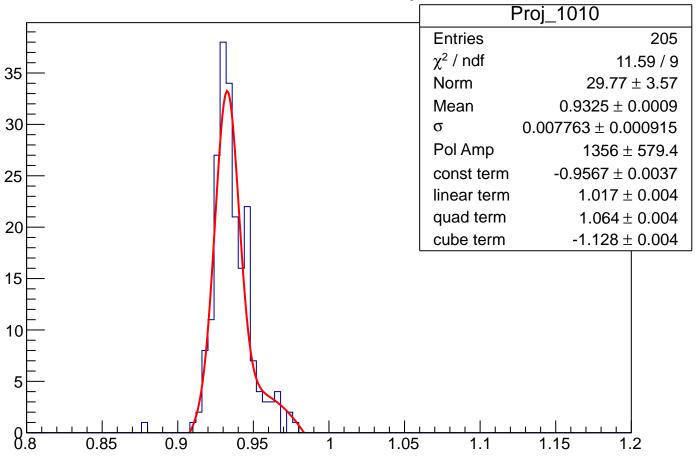


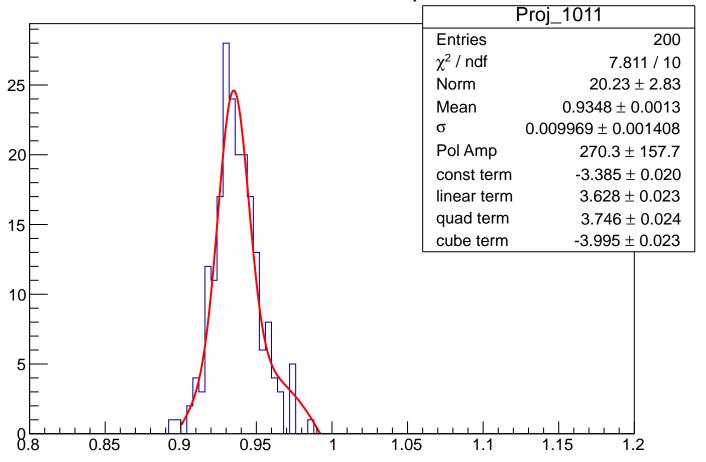


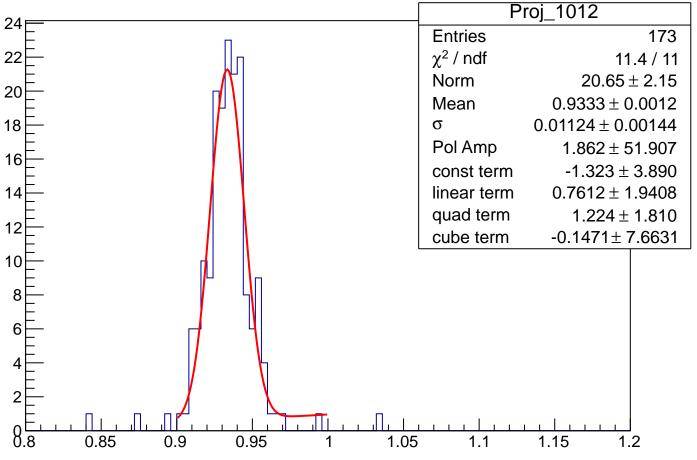


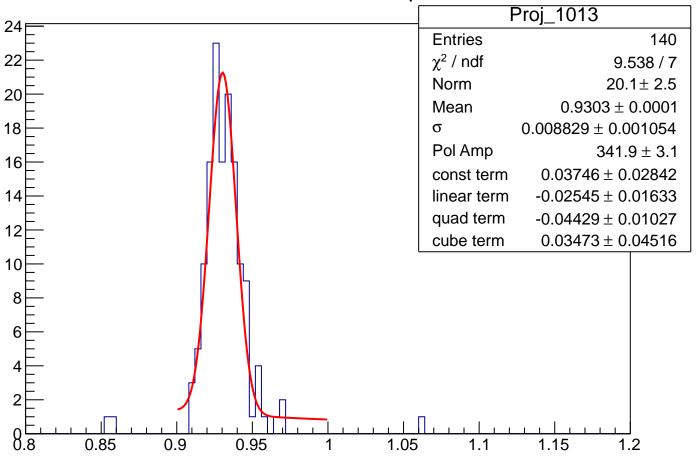


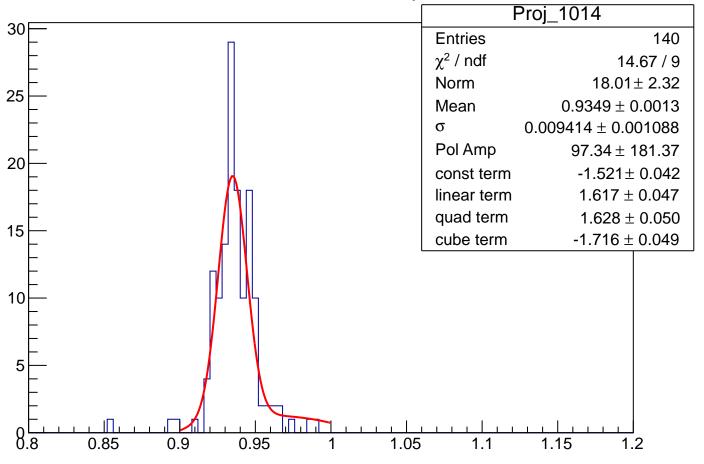


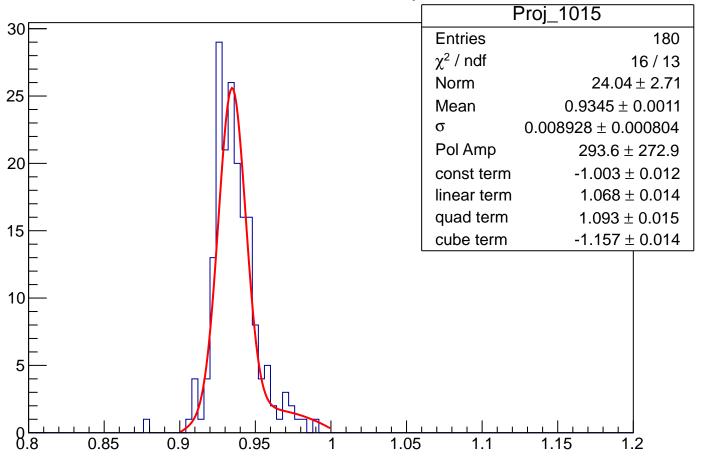


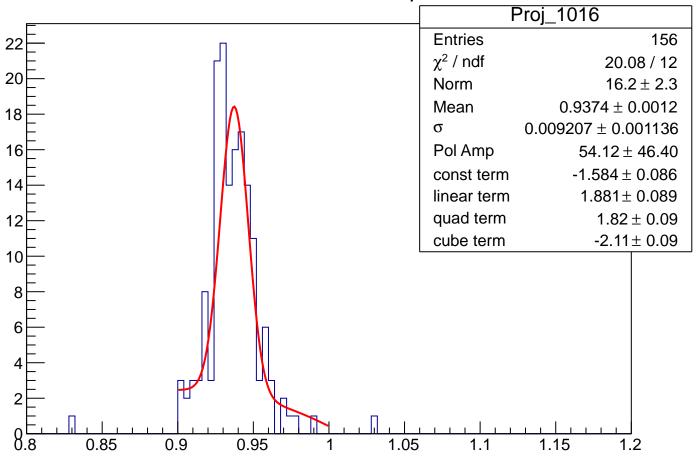


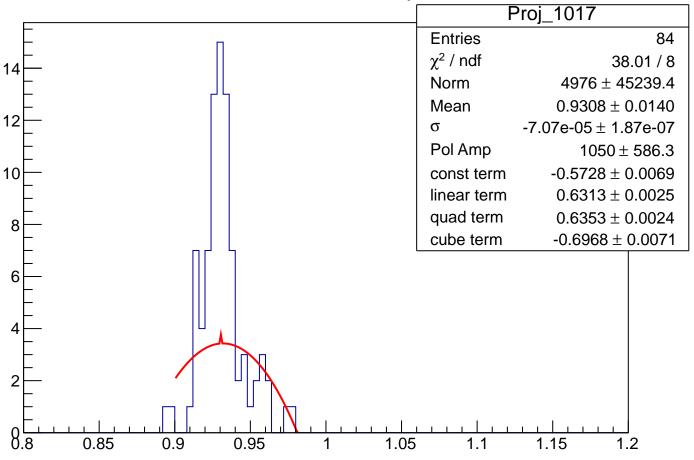






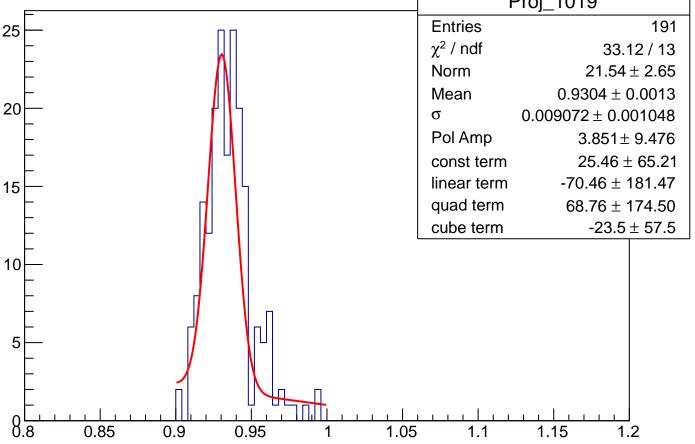


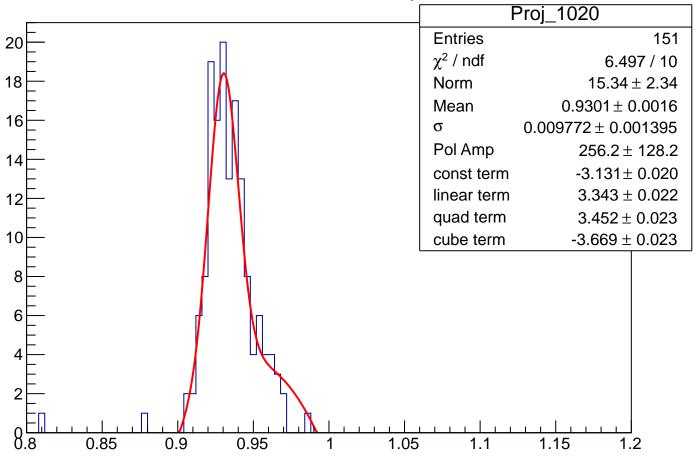




PhiThetaMassPip Proj_1018 **Entries** 103 16 χ^2 / ndf 15.42 / 10 Norm 10.82 ± 1.73 14 0.9352 ± 0.0020 Mean σ 0.01017 ± 0.00164 12 Pol Amp 57.37 ± 206.21 const term -0.9258 ± 0.0693 10 linear term 0.9716 ± 0.0768 quad term 0.9964 ± 0.0815 8 cube term -1.024 ± 0.083 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

PhiThetaMassPip Proj_1019 **Entries** 191 χ^2 / ndf 33.12 / 13 Norm 21.54 ± 2.65 0.9304 ± 0.0013 Mean σ 0.009072 ± 0.001048 Pol Amp 3.851 ± 9.476 25.46 ± 65.21 const term linear term -70.46 ± 181.47 quad term 68.76 ± 174.50 cube term -23.5 ± 57.5





PhiThetaMassPip Proj_1021 **Entries** 137 χ^2 / ndf 14.54 / 13 Norm 14.75 ± 2.61 Mean 0.928 ± 0.001 σ 0.008016 ± 0.001663 Pol Amp 30.97 ± 26.57 const term -0.7959 ± 0.1367 linear term 1.238 ± 0.141 quad term 1.036 ± 0.144 cube term -1.46 ± 0.15

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PhiThetaMassPip Proj_1022 16 **Entries** 131 χ^2 / ndf 13.81 / 12 Norm 12.12 ± 2.26 14 0.9401 ± 0.0001 Mean σ 0.007527 ± 0.000623 12 Pol Amp 357.1 ± 1.0 const term -2.463 ± 0.650 10 2.67 ± 0.69 linear term quad term 2.626 ± 0.688 8 cube term -2.837 ± 0.734 6 4 2

1.05

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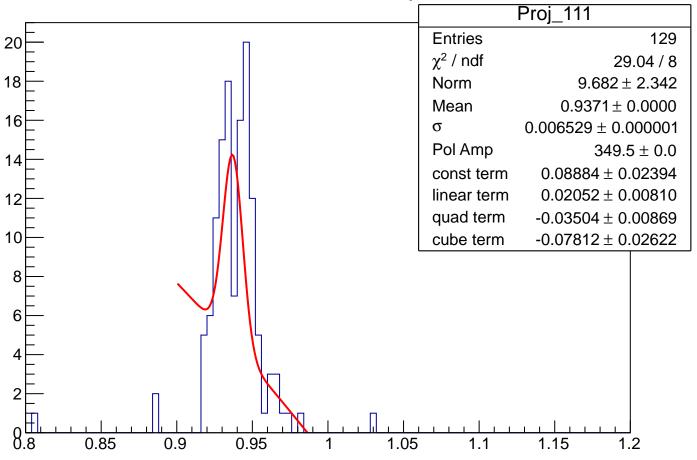
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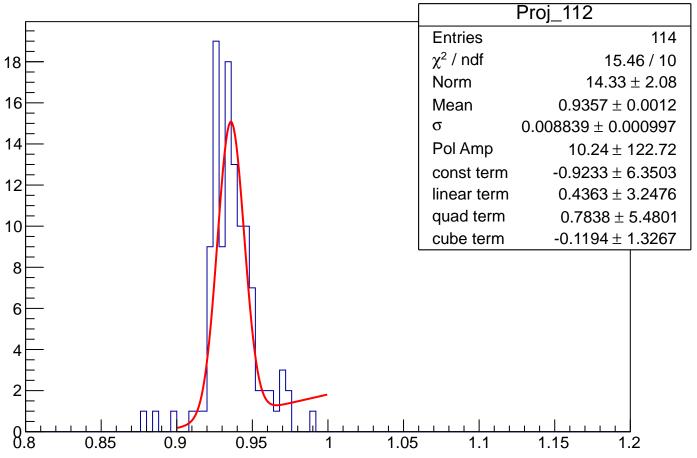
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0.95

PhiThetaMassPip Proj_1023 **Entries** 126 χ^2 / ndf 10.37 / 9 16 Norm 13.81 ± 2.14 0.9396 ± 0.0014 Mean 14 σ 0.01044 ± 0.00185 Pol Amp 40.43 ± 109.74 12 const term -1.991 ± 0.121 linear term 2.225 ± 0.127 10 quad term 2.189 ± 0.128 cube term -2.404 ± 0.123 8 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

PhiThetaMassPip Proj_110 **Entries** 117 18 χ^2 / ndf 9.58 / 11 Norm 14.72 ± 1.97 16 Mean 0.9387 ± 0.0012 σ 0.01027 ± 0.00113 14 Pol Amp 12.01 ± 169.62 12 const term -1.029 ± 7.558 linear term 0.4624 ± 3.9290 10 quad term 0.816 ± 6.258 -0.1236 ± 1.7671 cube term 8 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2





PhiThetaMassPip Proj_113 **Entries** 102 18 χ^2 / ndf 7.39 / 10 Norm 15.77 ± 2.58 16 Mean 0.935 ± 0.001 σ 0.007362 ± 0.001171 14 Pol Amp 1607 ± 2571.1 12 0.06542 ± 0.00233 const term linear term -0.07175 ± 0.00270 10 quad term -0.07267 ± 0.00292 0.08052 ± 0.00300 cube term 8 6 4 2

1.05

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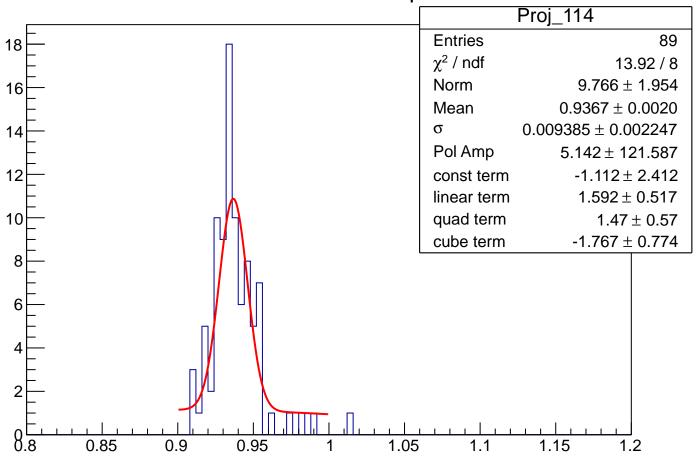
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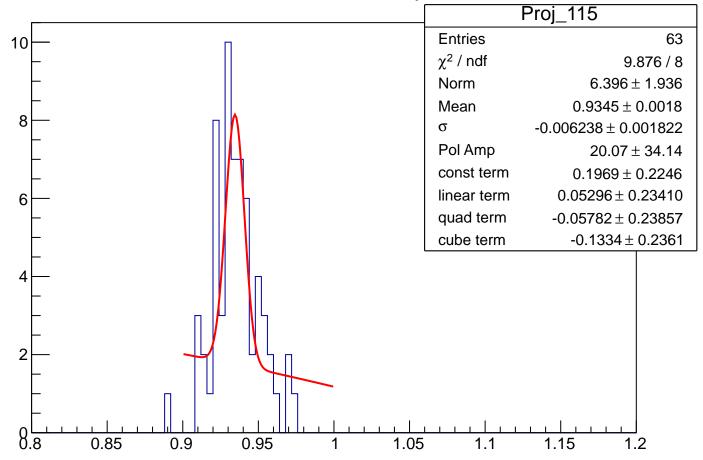
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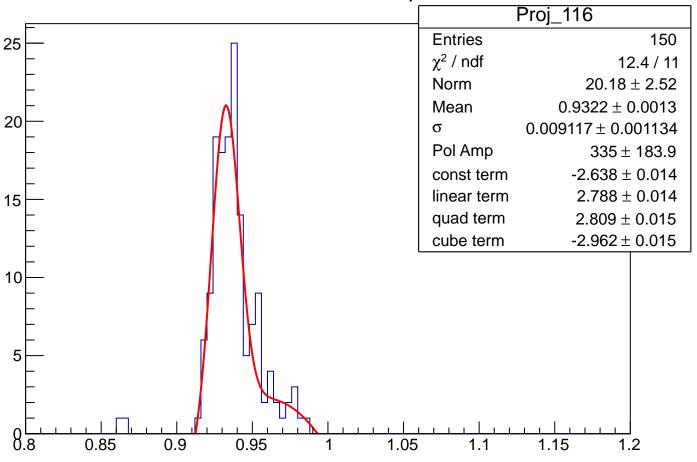
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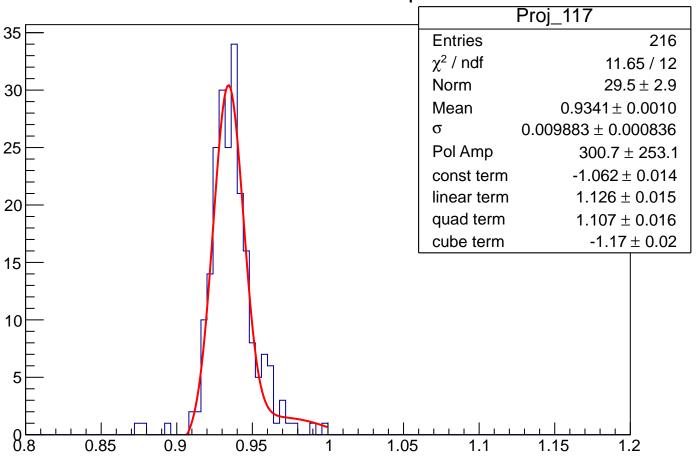
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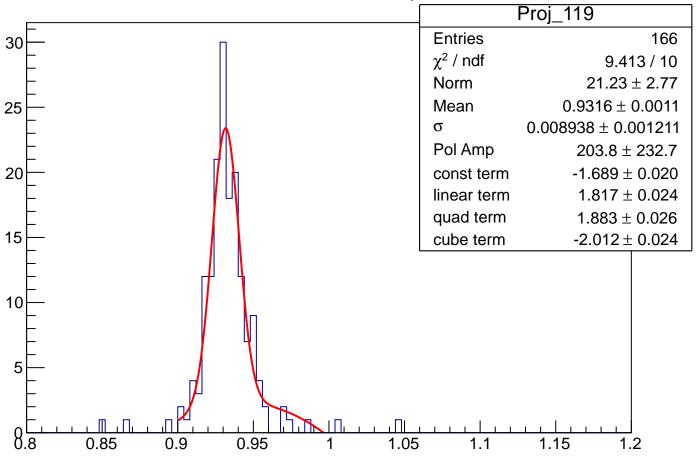


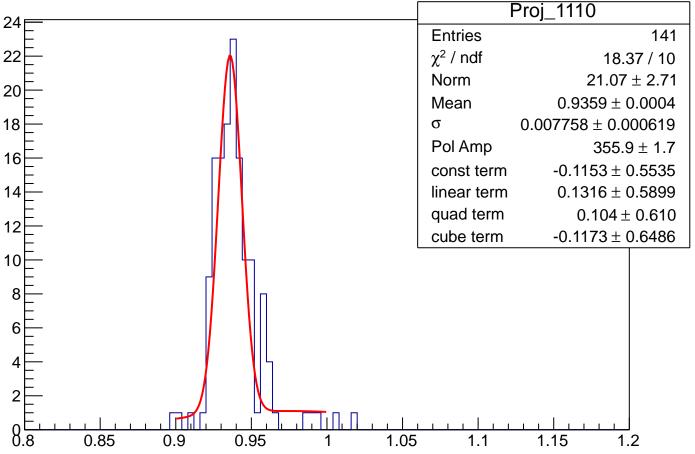




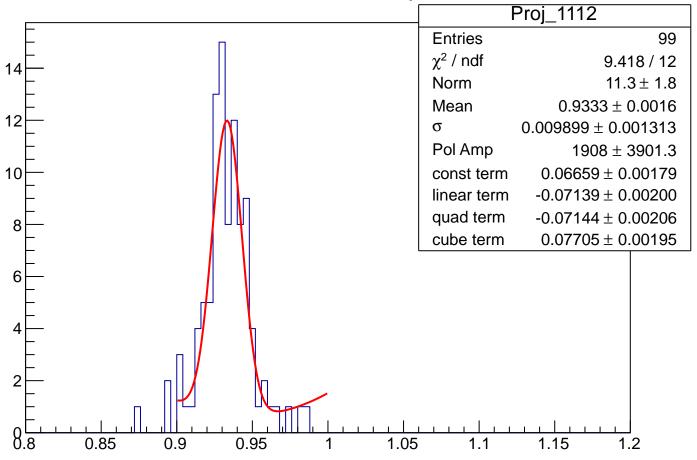


PhiThetaMassPip Proj_118 **Entries** 207 χ^2 / ndf 12.73 / 14 25 25.8 ± 2.5 Norm Mean 0.9344 ± 0.0010 σ 0.01072 ± 0.00086 20 Pol Amp 102.8 ± 143.8 const term -1.174 ± 0.035 linear term 1.238 ± 0.039 15 quad term 1.231 ± 0.041 cube term -1.285 ± 0.041 10 5 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

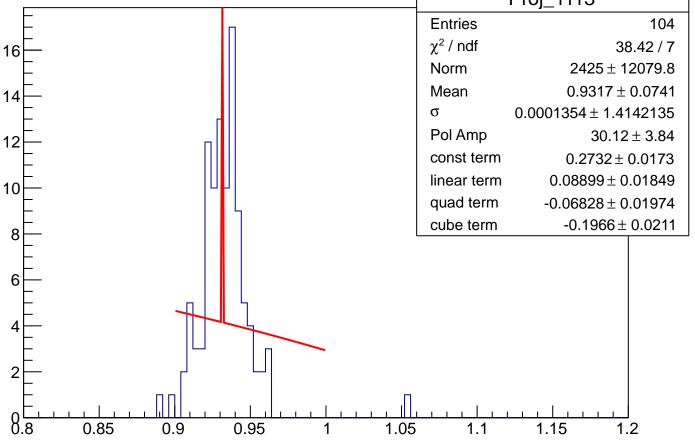




PhiThetaMassPip Proj_1111 Entries 112 16 χ^2 / ndf 5.124 / 5 Norm 17.89 ± 7.15 14 0.9342 ± 0.0017 Mean σ -0.01237 ± 0.00323 12 Pol Amp 22.31 ± 31.94 const term 94.63 ± 0.31 10 linear term -102.2 ± 0.3 quad term -105.3 ± 0.3 8 cube term 113.6 ± 0.4 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2



PhiThetaMassPip Proj_1113 **Entries** 104 χ^2 / ndf 38.42 / 7 Norm 2425 ± 12079.8 Mean 0.9317 ± 0.0741 σ 0.0001354 ± 1.4142135 Pol Amp 30.12 ± 3.84 const term 0.2732 ± 0.0173 0.08899 ± 0.01849 linear term quad term -0.06828 ± 0.01974 -0.1966 ± 0.0211 cube term



PhiThetaMassPip Proj_1114 **Entries** 80 χ^2 / ndf 9.172 / 11 14 Norm 10.43 ± 1.90 Mean 0.9374 ± 0.0003 12 σ 0.008023 ± 0.001209 Pol Amp 437.4 ± 5.6 10 0.008808 ± 0.505689 const term linear term 0.02002 ± 0.53501 quad term -0.07176 ± 0.55511 8 0.04561 ± 0.58625 cube term 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2

PhiThetaMassPip Proj_1115 **Entries** 113 14 χ^2 / ndf 15.54 / 12 Norm 10.99 ± 1.60 12 0.9393 ± 0.0016 Mean σ 0.01144 ± 0.00126 Pol Amp 1.017 ± 41.734 10 const term -3.017 ± 2.565 linear term 1.425 ± 0.551 8 quad term 2.569 ± 1.532 0.2405 ± 3.6653 cube term 6 4 2 8.8

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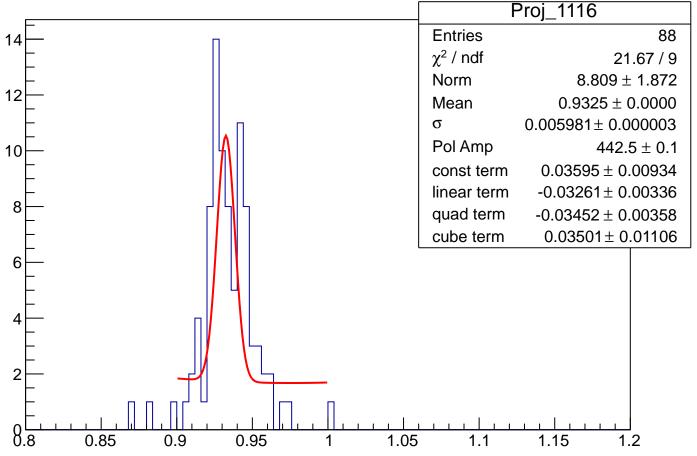
1.15

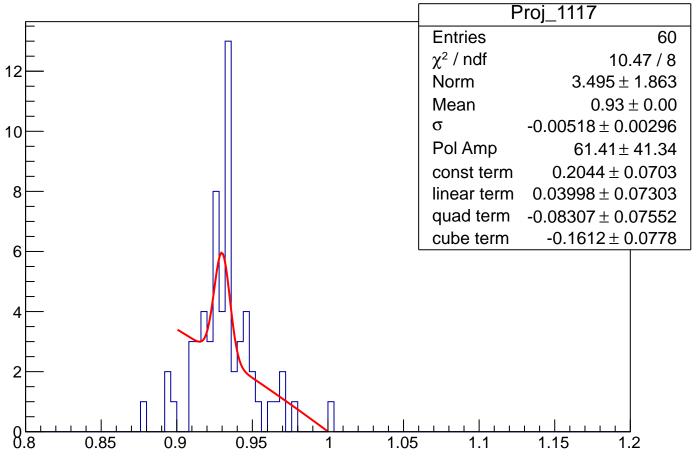
1.2

0.85

0.9

0.95





PhiThetaMassPip Proj_1118 **Entries** 66 χ^2 / ndf 24.67 / 9 10 Norm 9.411 ± 0.438 Mean 0.9425 ± 0.0000 σ 0.001681 ± 1.821819 8 Pol Amp 100.1± 1.1 0.05971 ± 0.00072 const term linear term -0.02641 ± 0.00069 6 quad term -0.04043 ± 0.00066 0.02165 ± 0.00063 cube term 4 2 8.8

1.05

1.1

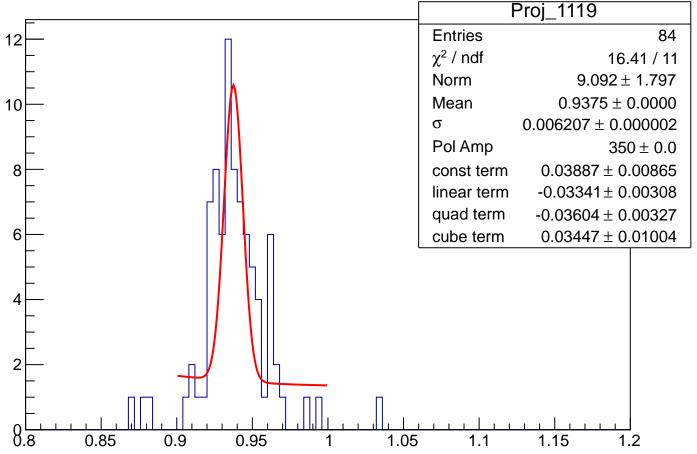
1.15

1.2

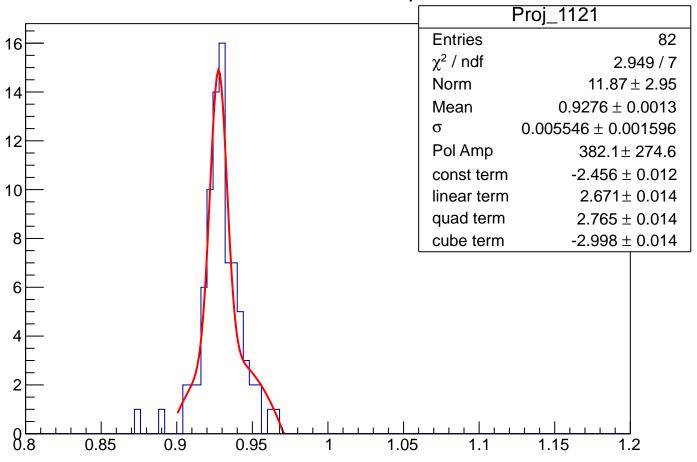
0.85

0.9

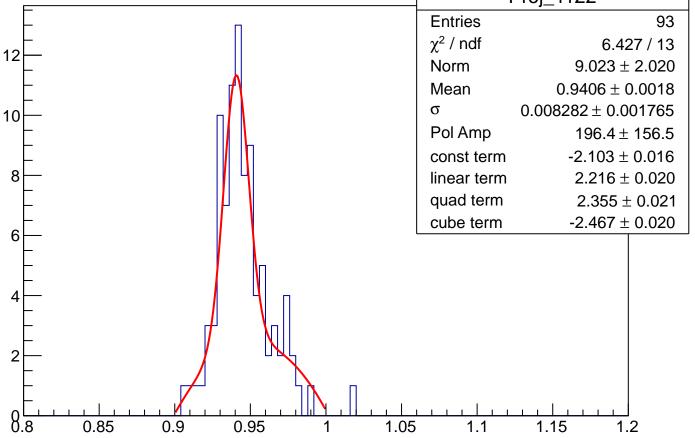
0.95



PhiThetaMassPip Proj_1120 **Entries** 112 χ^2 / ndf 14.84 / 10 16 Norm 14.74 ± 2.08 0.9311 ± 0.0000 Mean 14 σ 0.00714 ± 0.00000 Pol Amp 351.4 ± 0.0 12 const term 0.03694 ± 0.01050 -0.03445 ± 0.00388 linear term 10 quad term -0.03561 ± 0.00398 0.03792 ± 0.01268 cube term 8 6 4 2 8.8 0.85 0.9 0.95 1.05 1.1 1.15 1.2



PhiThetaMassPip Proj_1122 **Entries** 93 χ^2 / ndf 6.427 / 13Norm 9.023 ± 2.020 0.9406 ± 0.0018 Mean σ 0.008282 ± 0.001765 Pol Amp 196.4 ± 156.5 const term -2.103 ± 0.016 linear term 2.216 ± 0.020 quad term 2.355 ± 0.021 cube term -2.467 ± 0.020



PhiThetaMassPip Proj_1123 **Entries** 105 χ^2 / ndf 36.25 / 9 Norm $1.286e+04 \pm 4.040e+04$ Mean 0.944 ± 0.000 σ 0.0005144 ± 0.0001245 Pol Amp 6.366 ± 14.914 const term 0.2641 ± 0.3099 1.323 ± 3.620 linear term quad term 0.6698 ± 1.9914 -1.911± 5.190 cube term

