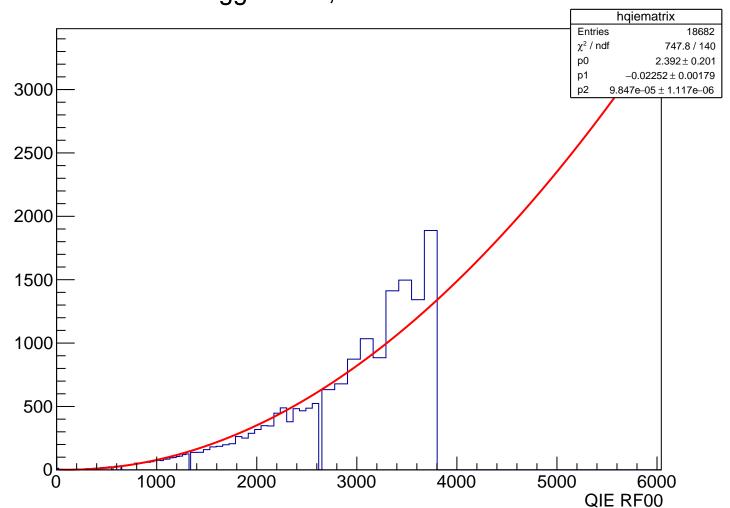
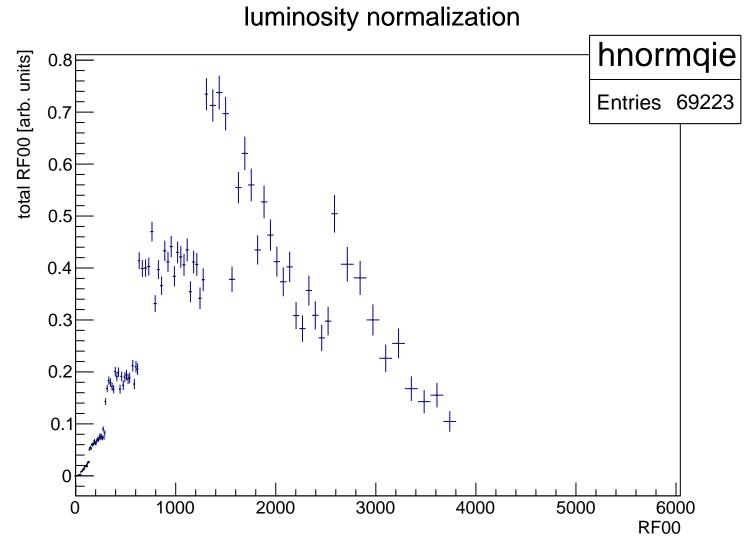
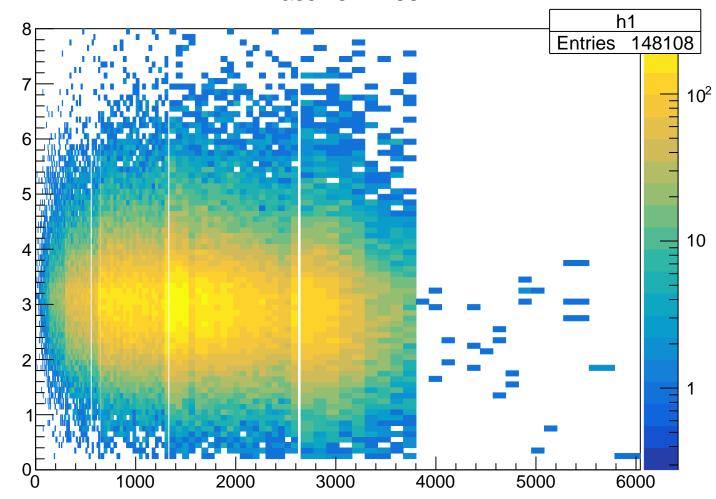


trigger ratio, MATRIX1/NIM3

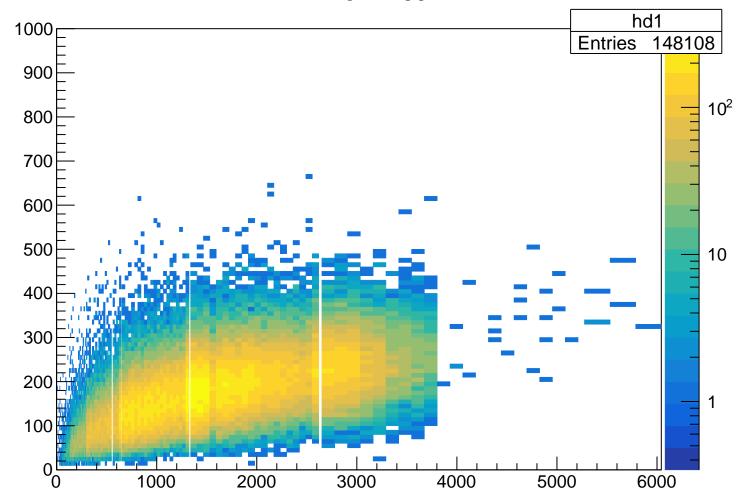




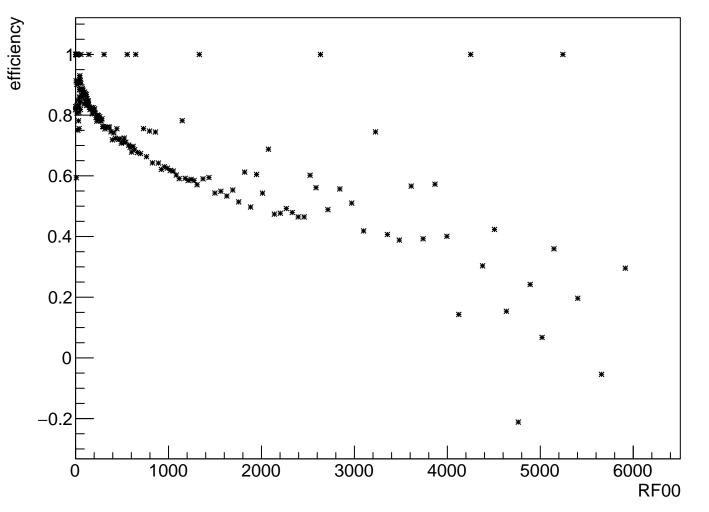
mass vs. RF00



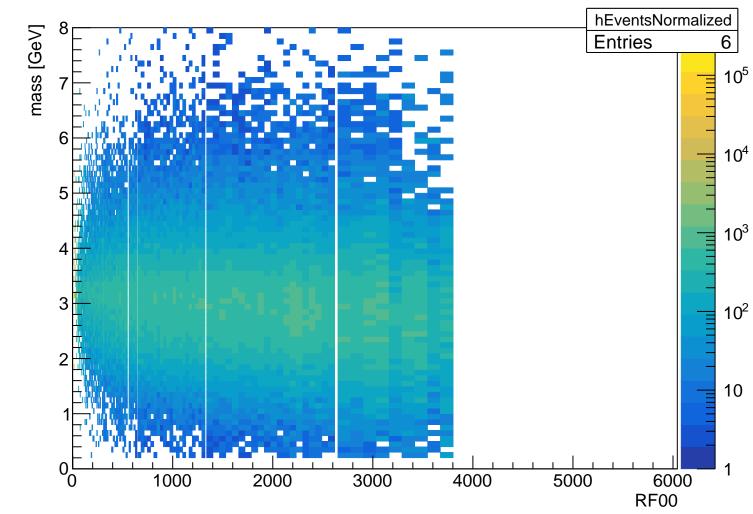
D1 vs. RF00



efficiency vs. intensity



Normalized data



normalized dimuons vs. intensity, mass [0.2, 0.3] test3 arbitrary units **Entries** 18 40 χ^2 / ndf 21.33 / 64 p0 0.4535 ± 0.9738 0.000258 ± 0.001808 **p1** 30 20 10 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [0.3, 0.4] test4 arbitrary units 34 **Entries** 35 χ^2 / ndf 60.65 / 64 p0 -0.9855 ± 0.0061 30 p1 0.00379 ± 0.00003 25 20 15 10 5 0 500 1000 1500 2000 2500 3000

RF00

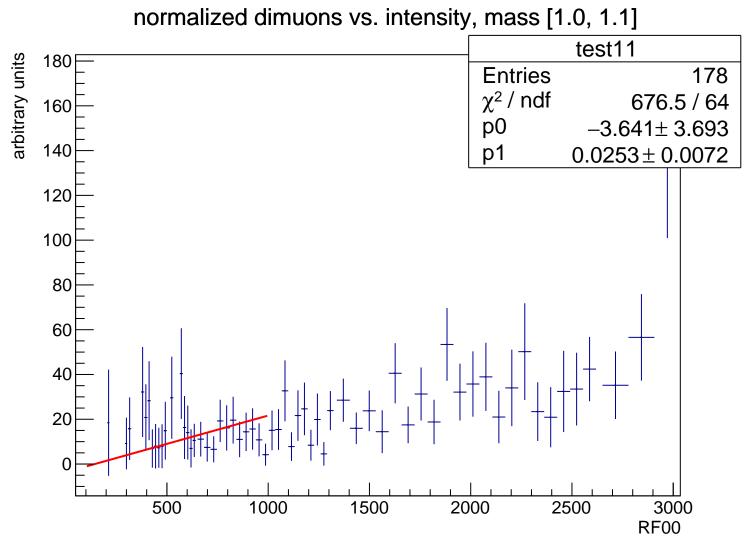
normalized dimuons vs. intensity, mass [0.4, 0.5] test5 arbitrary units 40 **Entries** 36 χ^2 / ndf 114.8 / 64 35 p0 -0.08845 ± 1.65224 0.003916 ± 0.004010 **p1** 30 25 20 15 10 5 0 -5 500 1000 1500 2000 2500 3000 RF00

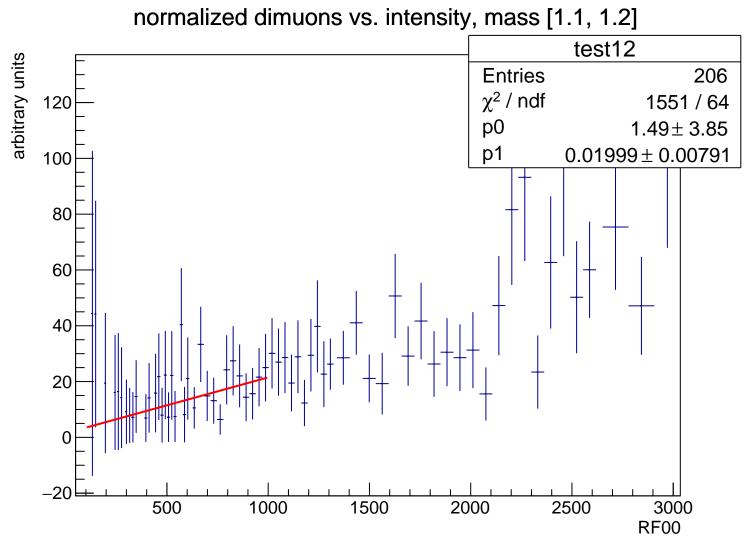
normalized dimuons vs. intensity, mass [0.5, 0.6] test6 arbitrary units 60 **Entries** 48 χ^2 / ndf 254.1 / 64 50 p0 0.9215 ± 2.0225 0.003677 ± 0.004334 p1 40 30 20 10 0 500 1000 1500 2000 2500 3000 RF00

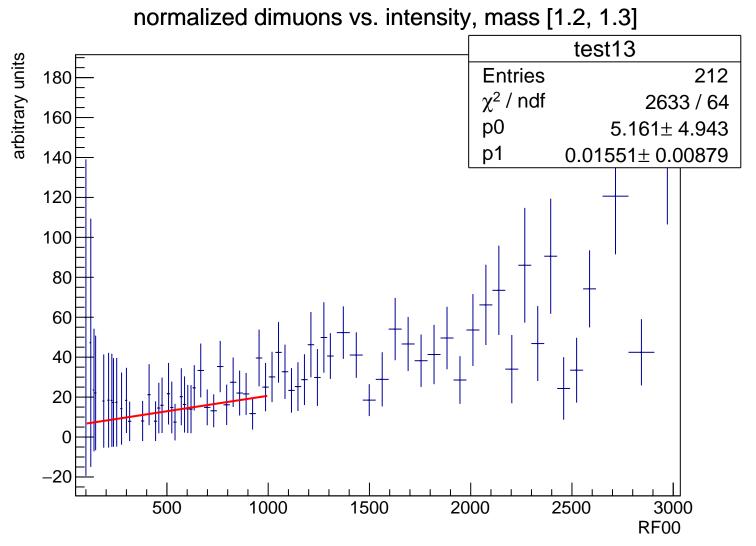
normalized dimuons vs. intensity, mass [0.6, 0.7] test7 arbitrary units 60 **Entries** 66 χ^2 / ndf 448.6 / 64 50 p0 0.7989 ± 2.0515 p1 0.006318 ± 0.004374 40 30 20 10 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [0.8, 0.9] test9 arbitrary units **Entries** 79 χ^2 / ndf 1280 / 64 100 p0 4.578 ± 3.985 0.004076 ± 0.006864 p1 80 60 40 20 0 -20 3000 500 1000 1500 2000 2500 RF00

normalized dimuons vs. intensity, mass [0.9, 1.0] test10 arbitrary units 166 **Entries** 100 χ^2 / ndf 1166 / 64 p0 -1.817 ± 3.078 0.02085 ± 0.00803 p1 80 60 40 20 0 3000 500 1000 1500 2000 2500 RF00

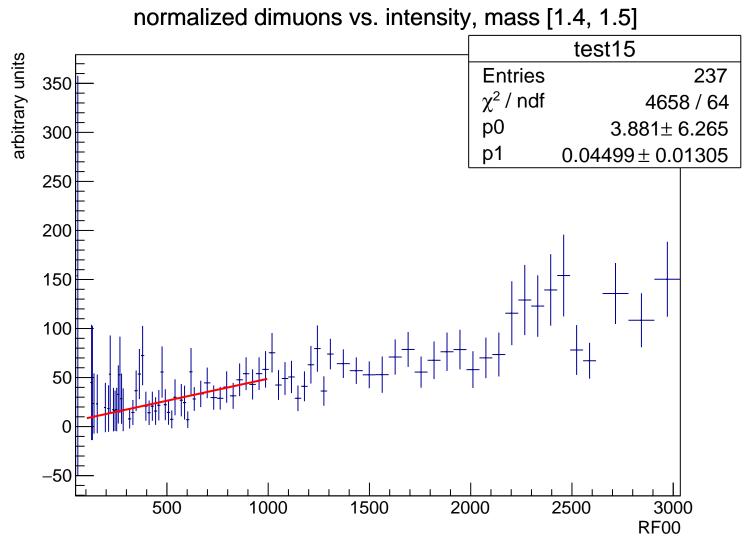






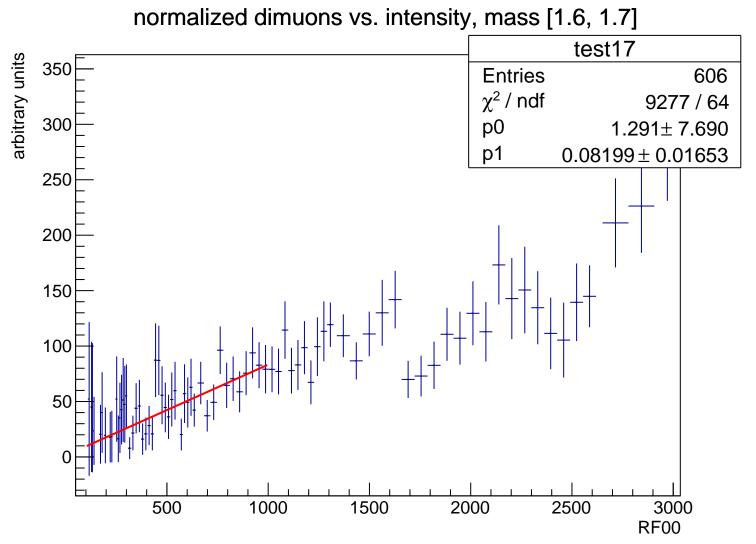
normalized dimuons vs. intensity, mass [1.3, 1.4] test14 arbitrary units 250 238 **Entries** χ^2 / ndf 2810 / 64 p0 -0.4804 ± 5.0155 200 p1 0.04298 ± 0.01126 150 100 50 500 1000 1500 2000 2500 3000

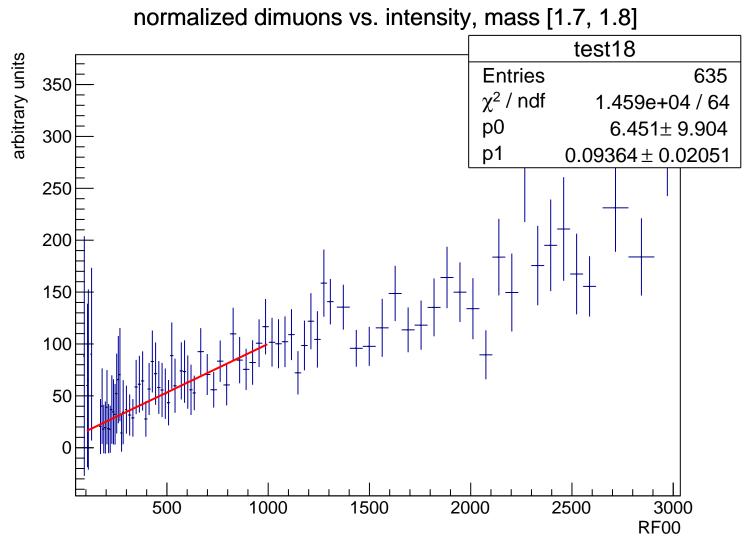
RF00

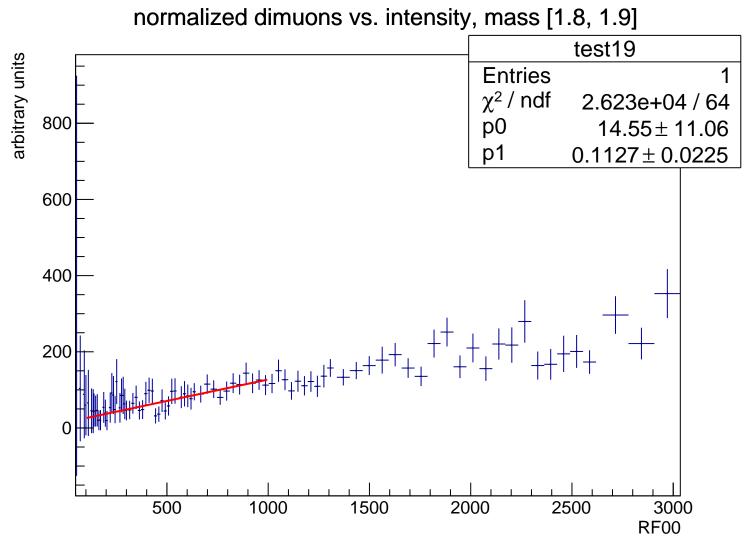


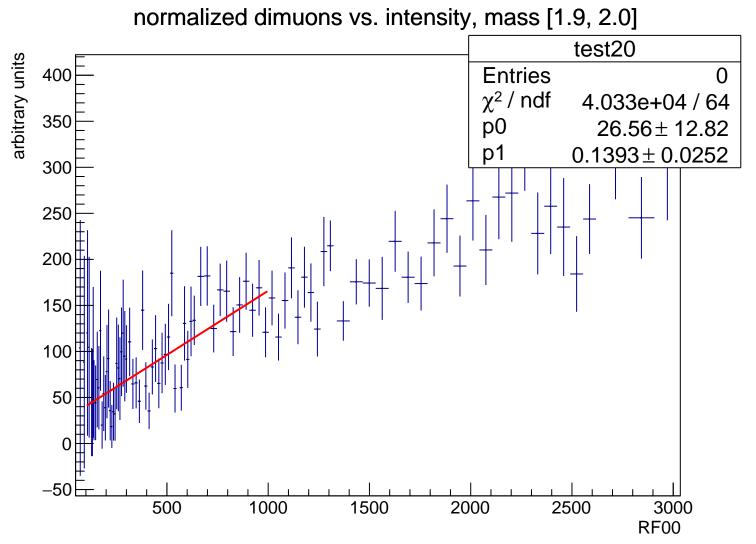
normalized dimuons vs. intensity, mass [1.5, 1.6] test16 arbitrary units 476 **Entries** 250 χ^2 / ndf 8847 / 64 p0 7.806 ± 7.505 **p1** 0.05526 ± 0.01483 200 150 100 50 0 3000 500 1000 1500 2000 2500

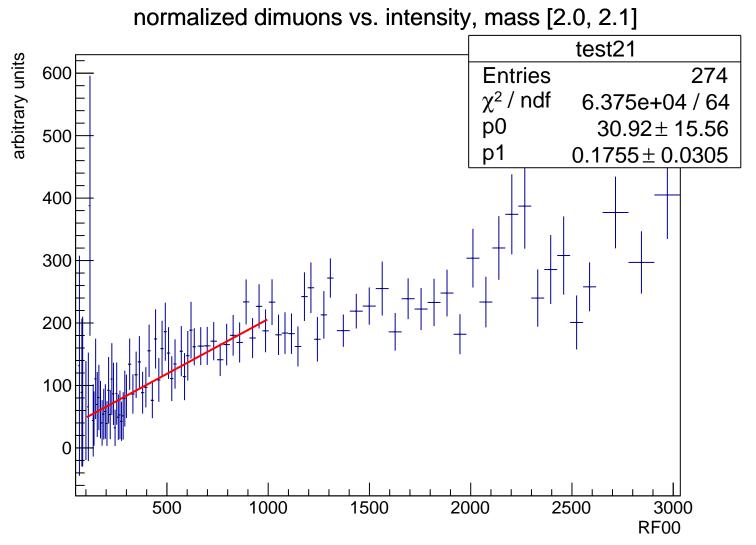
RF00



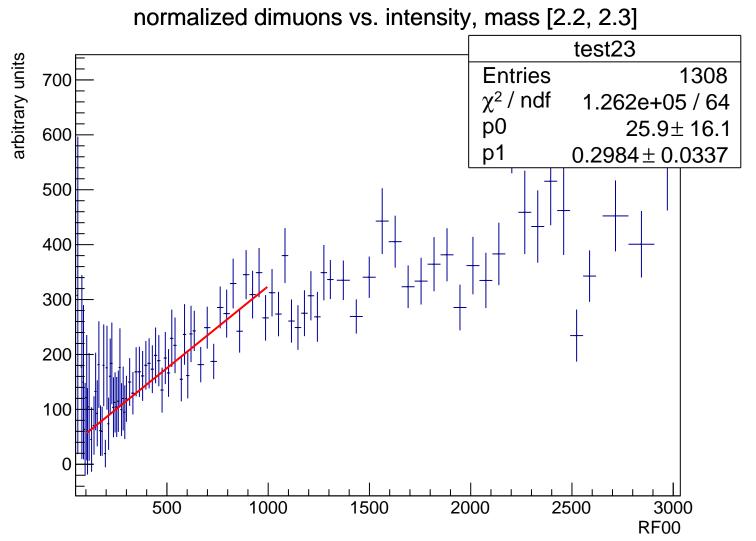


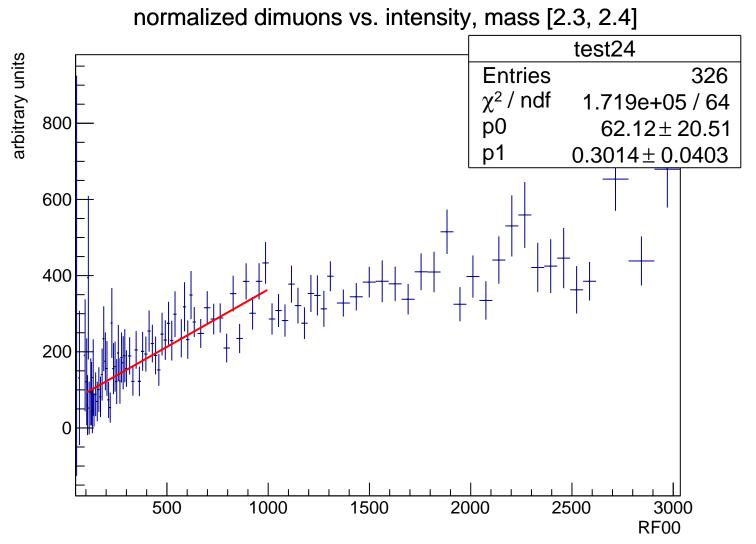


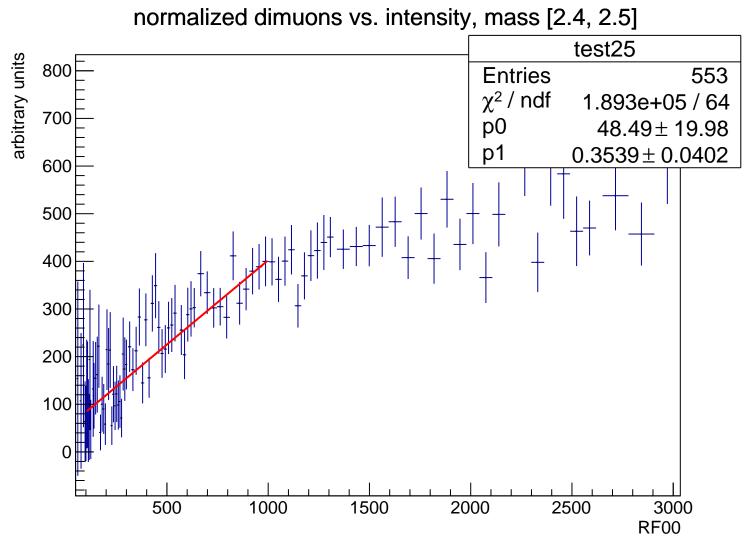


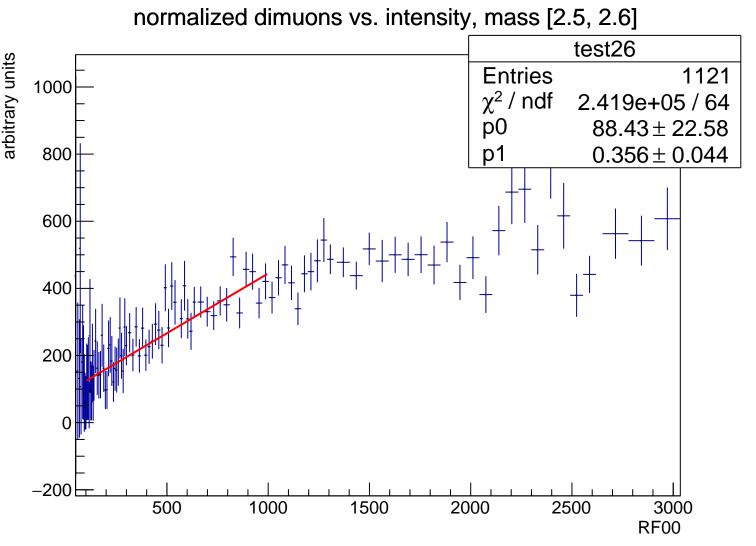


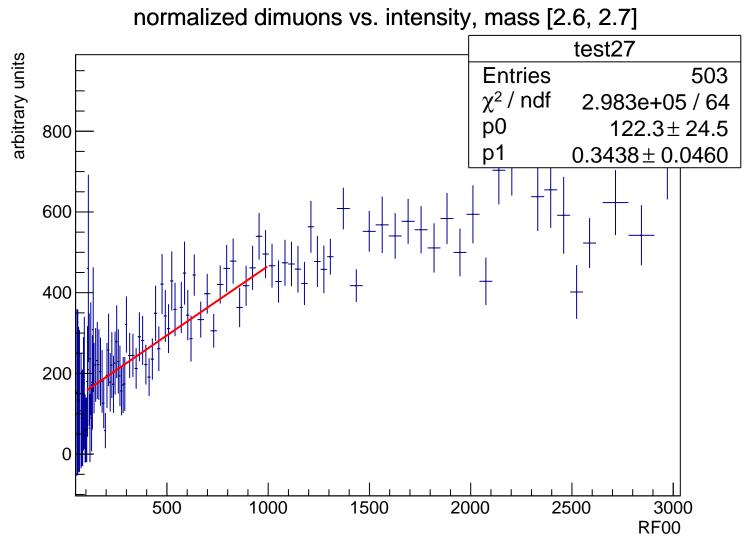
normalized dimuons vs. intensity, mass [2.1, 2.2] test22 arbitrary units 1074 **Entries** χ^2 / ndf 7.466e+04 / 64 500 p0 23.65 ± 15.50 **p1** 0.2343 ± 0.0317 400 300 200 100 500 1000 1500 2000 2500 3000 RF00

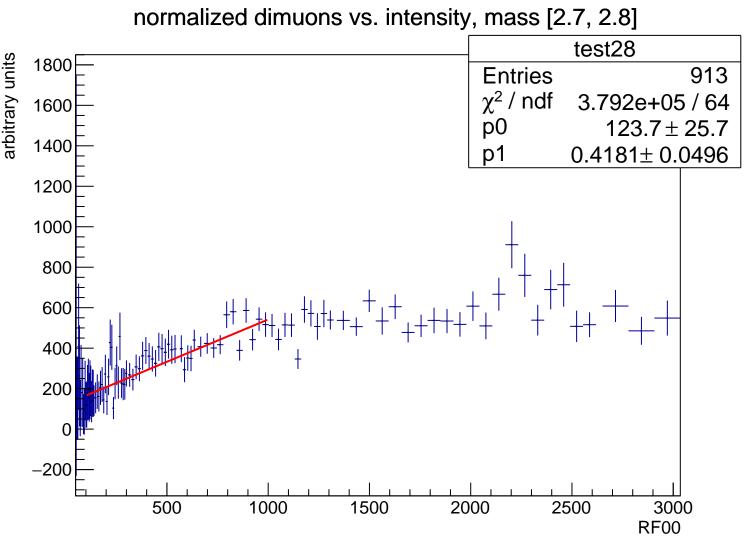


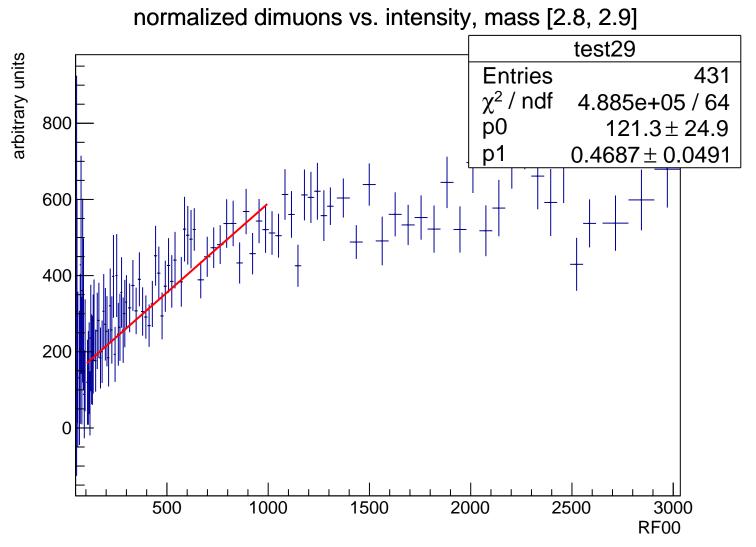


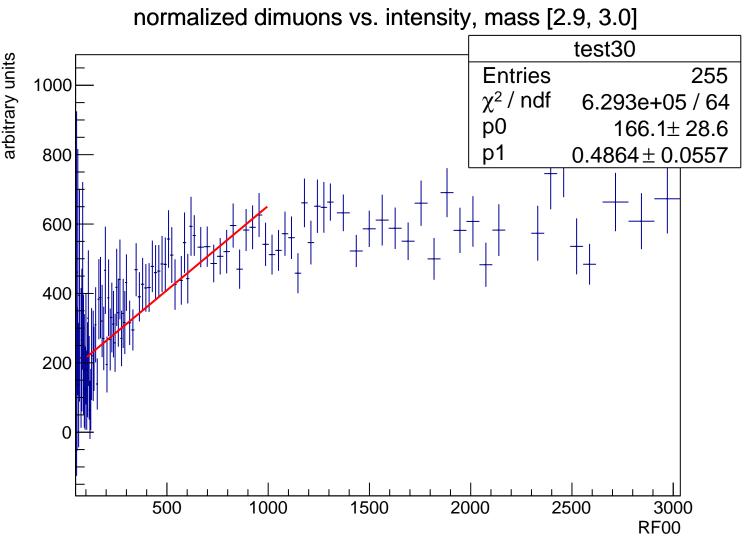


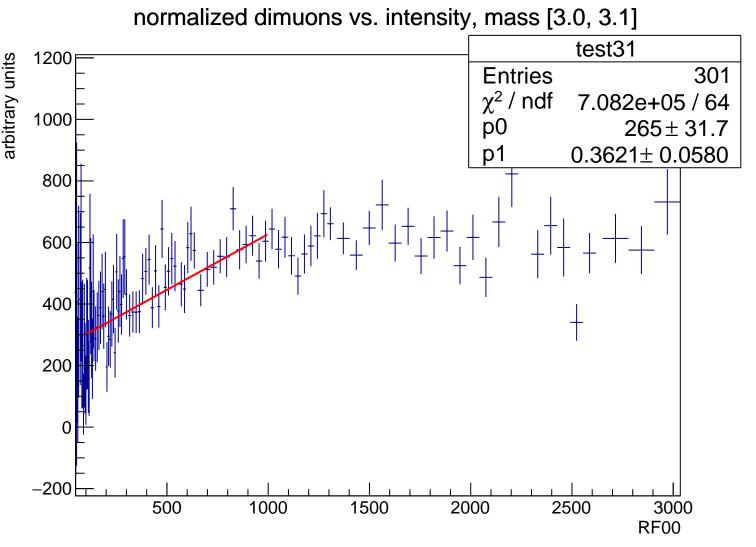


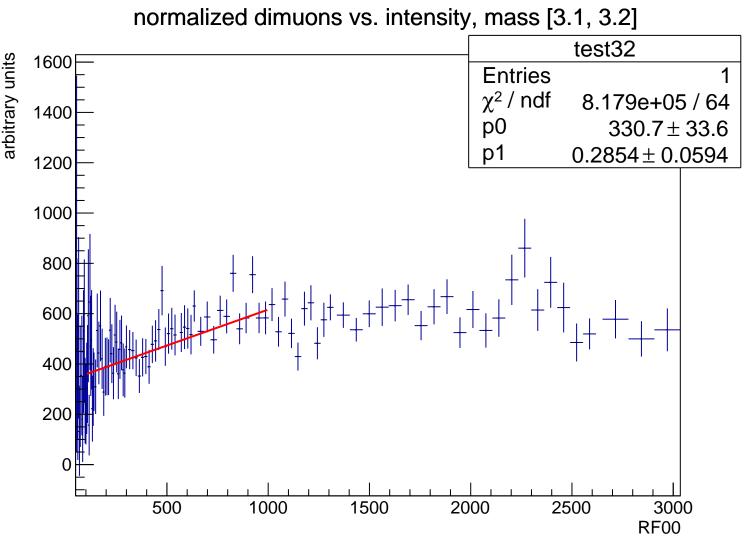


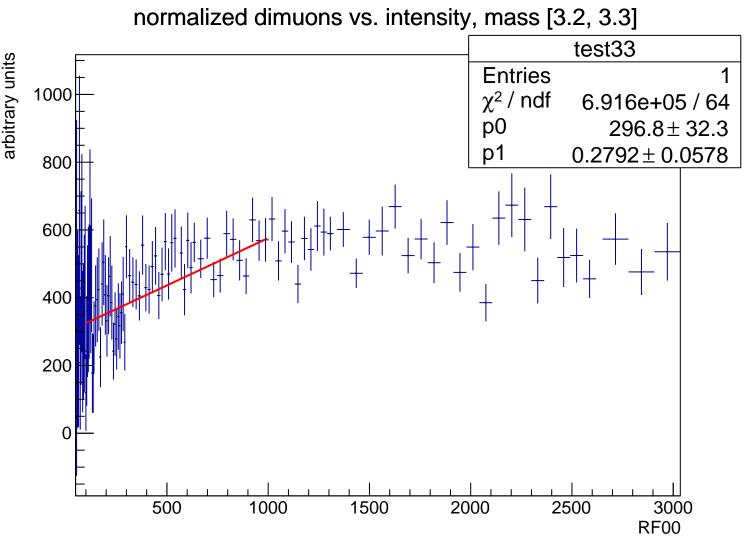


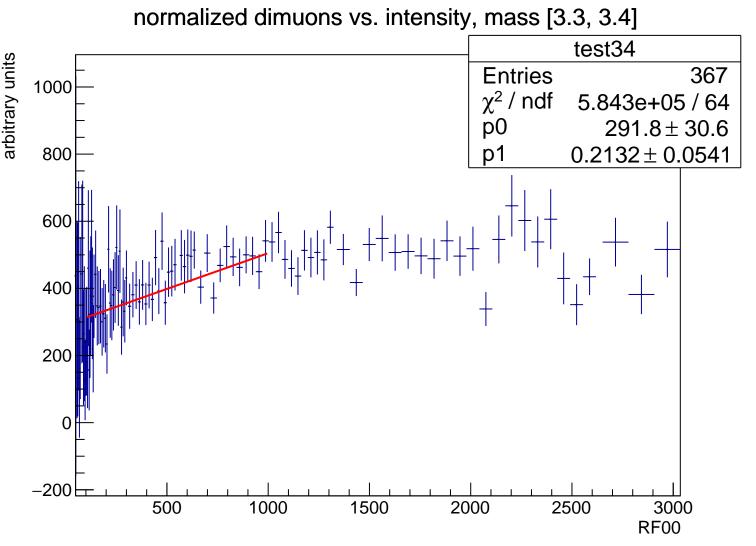




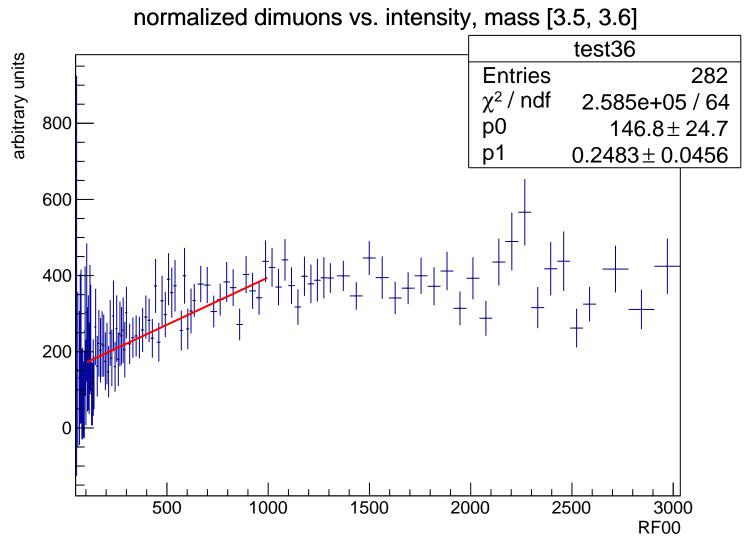


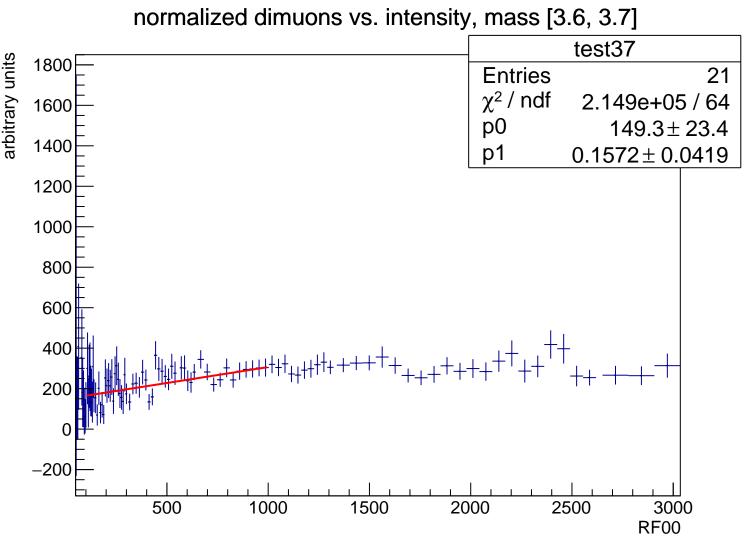


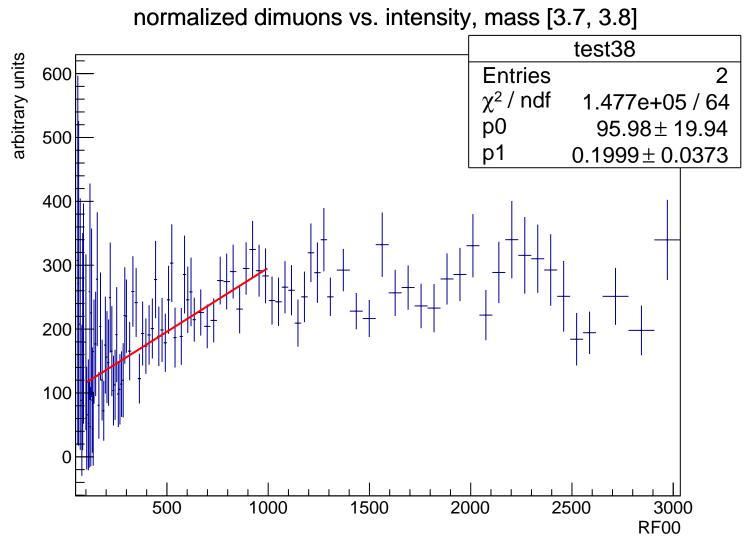


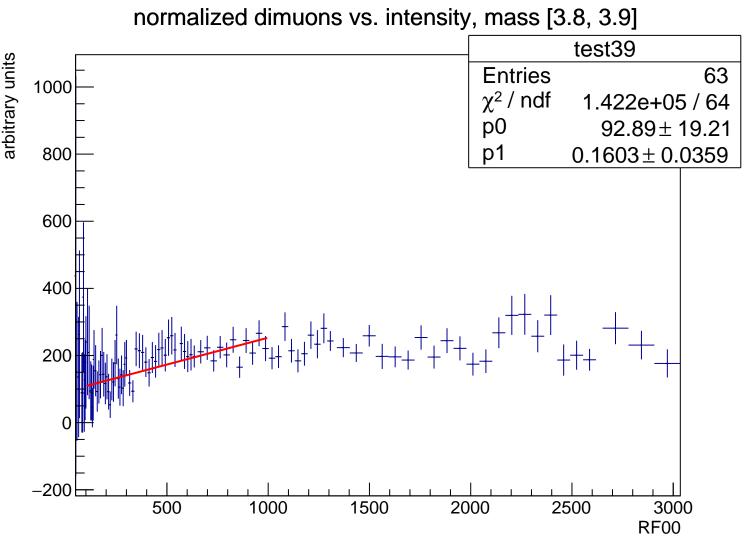


normalized dimuons vs. intensity, mass [3.4, 3.5] test35 arbitrary units 700 **Entries** χ^2 / ndf 4.115e+05 / 64 600 p0 176.9 ± 27.0 **p1** 0.2916 ± 0.0496 500 400 300 200 100 0 500 1000 1500 2000 2500 3000 RF00

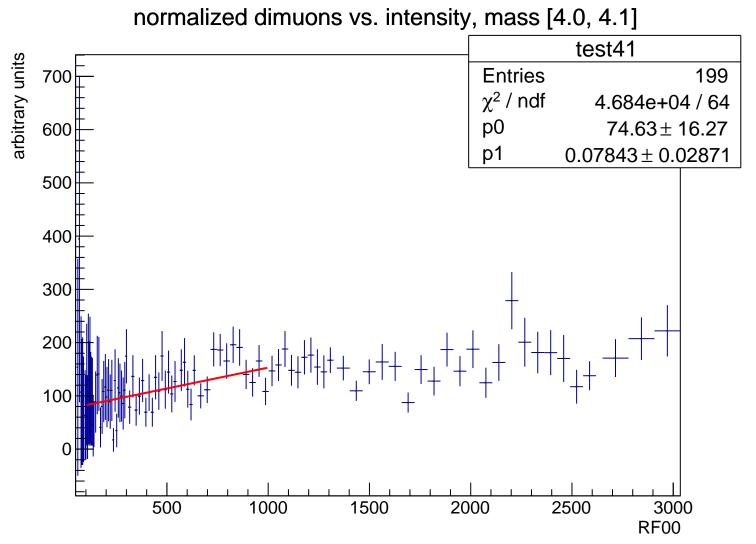








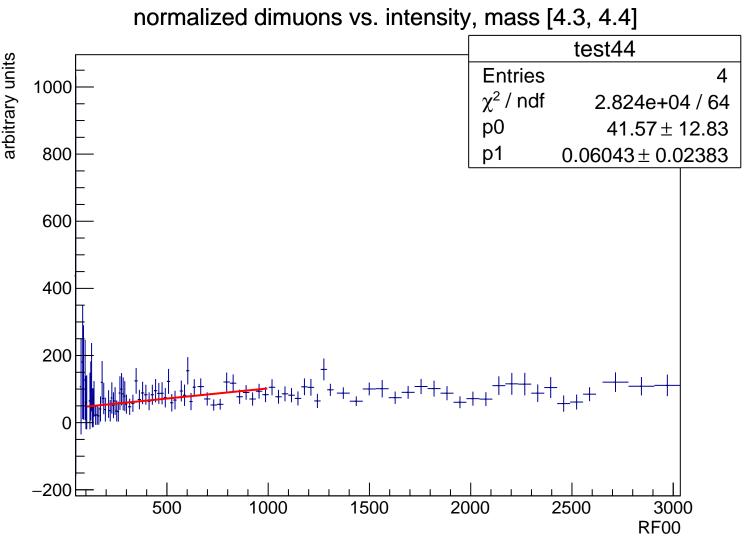
normalized dimuons vs. intensity, mass [3.9, 4.0] test40 arbitrary units **Entries** 5 400 χ^2 / ndf 8.781e+04 / 64 p0 65.73 ± 16.86 **p1** 0.1322 ± 0.0317 300 200 100 500 1000 1500 2000 2500 3000 RF00

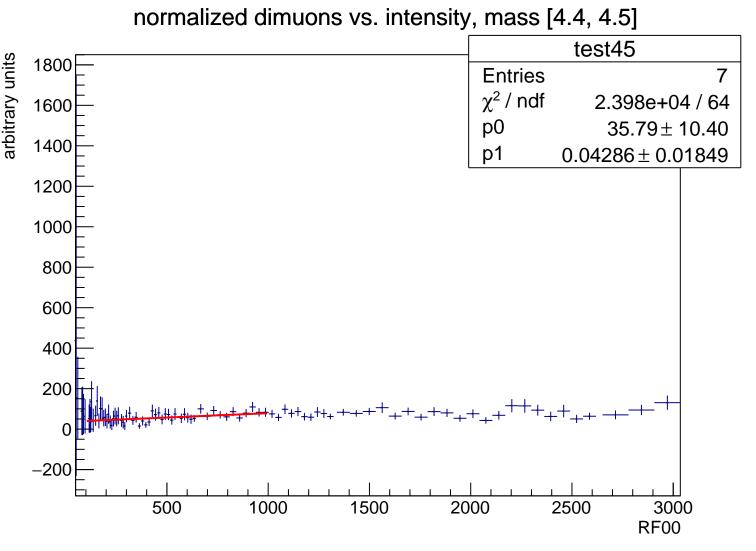


normalized dimuons vs. intensity, mass [4.1, 4.2] test42 arbitrary units **Entries** 350 χ^2 / ndf 5.767e+04 / 64 p0 66.4 ± 15.4 300 p1 0.06505 ± 0.02723 250 200 150 100 50 -50500 1000 1500 2000 2500 3000 RF00

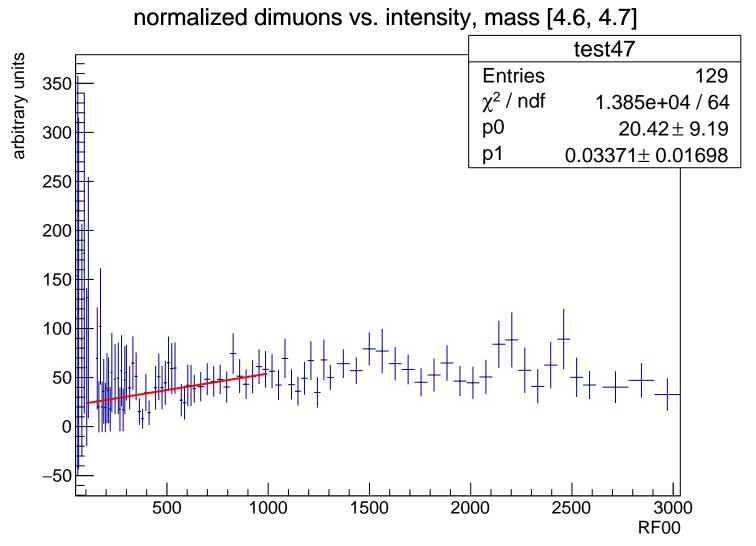
normalized dimuons vs. intensity, mass [4.2, 4.3] test43 arbitrary units **Entries** 387 300 χ^2 / ndf 3.396e+04 / 64 p0 41.43 ± 12.51 250 **p1** 0.07231 ± 0.02323 200 150 100 50 -50500 1000 1500 2000 2500 3000

RF00

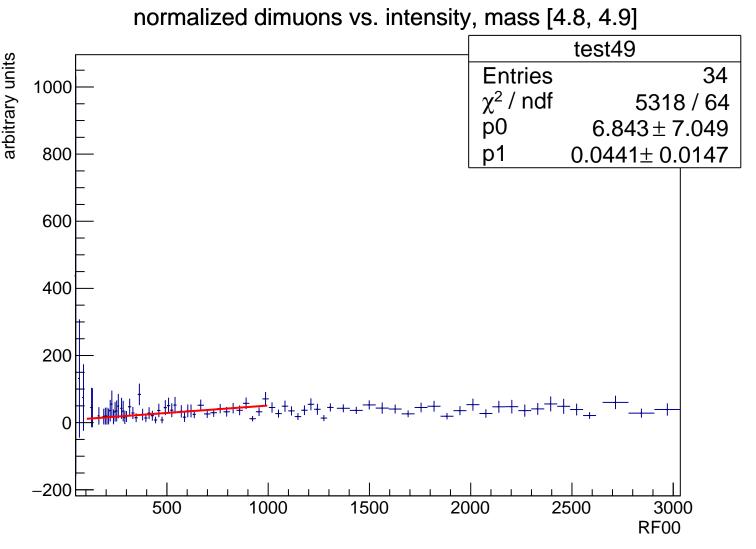




normalized dimuons vs. intensity, mass [4.5, 4.6] test46 arbitrary units 216 **Entries** 350 χ^2 / ndf 1.52e+04 / 64 p0 29.22 ± 10.46 300 **p1** 0.03779 ± 0.01934 250 200 150 100 50 -50500 1000 1500 2000 2500 3000 RF00



normalized dimuons vs. intensity, mass [4.7, 4.8] test48 arbitrary units 22 **Entries** 250 χ^2 / ndf 1.136e+04 / 64 p0 20.54 ± 9.26 200 p1 0.02725 ± 0.01705 150 100 50 500 1000 1500 2000 2500 3000 RF00



normalized dimuons vs. intensity, mass [4.9, 5.0] test50 160 arbitrary units 189 **Entries** χ^2 / ndf 4682 / 64 140 p0 7.257 ± 7.427 120 p1 0.03518 ± 0.01526 100 80 60 40 20 0 -20500 1000 1500 2000 2500 3000

RF00

normalized dimuons vs. intensity, mass [5.0, 5.1] test51 arbitrary units **Entries** 81 300 χ^2 / ndf 6164 / 64 p0 15.48 ± 7.23 250 p1 0.008286 ± 0.012419 200 150 100 50 -50500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.1, 5.2] test52 arbitrary units **Entries** 99 200 $\chi^2\,/$ ndf 4305 / 64 p0 12.8 ± 6.0 p1 0.007486 ± 0.010825 150 100 50 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.2, 5.3] test53 arbitrary units **Entries** 10 350 χ^2 / ndf 6807 / 64 p0 20.02 ± 7.43 300 p1 -0.006961 ± 0.011042 250 200 150 100 50 -50500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.3, 5.4] test54 arbitrary units **Entries** 200 $\chi^2\,/$ ndf 5557 / 64 p0 14.45 ± 6.67 0.001743 ± 0.010731 p1 150 100 50 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.4, 5.5] test55 arbitrary units **Entries** 35 400 χ^2 / ndf 4495 / 64 350 p0 15.23 ± 6.30 p1 -0.009566 ± 0.009338 300 250 200 150 100 50 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.5, 5.6] test56 arbitrary units 70 **Entries** 90 χ^2 / ndf 1444 / 64 60 p0 1.079 ± 3.054 p1 0.01331 ± 0.00689 50 40 30 20 10 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.6, 5.7] test57 arbitrary units 250 **Entries** 32 χ^2 / ndf 1826 / 64 p0 5.505 ± 4.157 200 0.00612 ± 0.00762 **p1** 150 100 50 500 1000 1500 2000 2500 3000 RF00

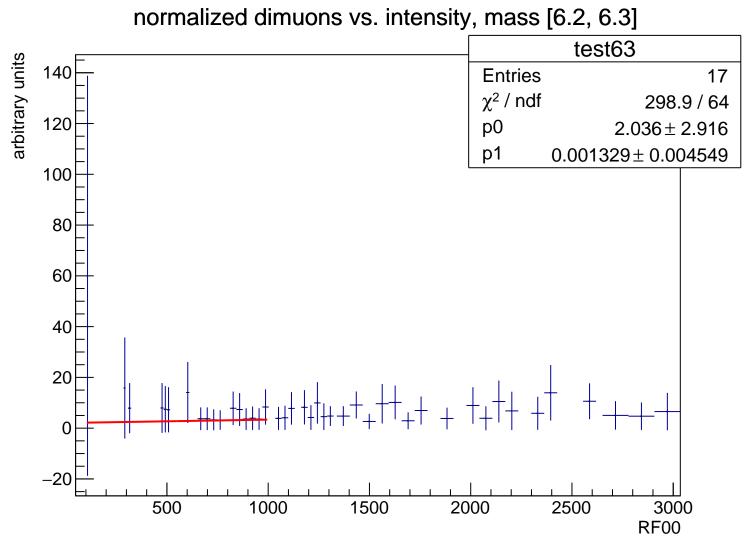
normalized dimuons vs. intensity, mass [5.7, 5.8] test58 arbitrary units **Entries** 51 100 χ^2 / ndf 930 / 64 p0 3.241 ± 3.587 0.006568 ± 0.006817 p1 80 60 40 20 0 3000 500 1000 1500 2000 2500 RF00

normalized dimuons vs. intensity, mass [5.8, 5.9] test59 arbitrary units 180 **Entries** 25 χ^2 / ndf 659 / 64 160 p0 1.942 ± 3.113 140 p1 0.008009 ± 0.005763 120 100 80 60 40 20 0 -20500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [5.9, 6.0] test60 arbitrary units **Entries** 56 χ^2 / ndf 271.2 / 64 50 p0 0.02927 ± 1.52774 p1 0.006885 ± 0.003422 40 30 20 10 0 500 1000 1500 2000 2500 3000 RF00

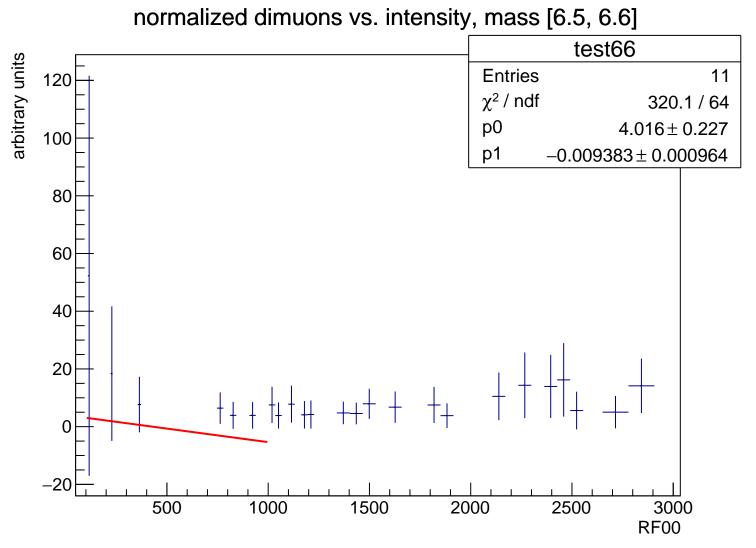
normalized dimuons vs. intensity, mass [6.0, 6.1] test61 arbitrary units **Entries** 36 70 χ^2 / ndf 659.6 / 64 p0 4.012 ± 2.466 60 **p1** -0.0009441 ± 0.0041166 50 40 30 20 10 0 -10^L 3000 500 1000 1500 2000 2500 RF00

normalized dimuons vs. intensity, mass [6.1, 6.2] test62 arbitrary units 40 **Entries** 40 χ^2 / ndf 269.5 / 64 35 p0 -0.7593 ± 3.1916 p1 0.00749 ± 0.00817 30 25 20 15 10 5 0 -5 500 1000 1500 2000 2500 3000 RF00



normalized dimuons vs. intensity, mass [6.3, 6.4] test64 arbitrary units **Entries** 28 30 χ^2 / ndf 93.11 / 64 p0 -1.442 ± 0.001 25 p1 0.00538 ± 0.00001 20 15 10 5 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [6.4, 6.5] test65 arbitrary units **Entries** 14 100 χ^2 / ndf 471.5 / 64 p0 4.792 ± 0.239 80 p1 -0.01163 ± 0.00048 60 40 20 0 500 1000 1500 2000 2500 3000 RF00



normalized dimuons vs. intensity, mass [6.8, 6.9] test69 arbitrary units 250 **Entries** 3 χ^2 / ndf 30.96 / 64 p0 0.2962 ± 1.1308 200 0.0009153 ± 0.0025574 **p1** 150 100 50 0 500 1000 1500 2000 2500 3000 RF00

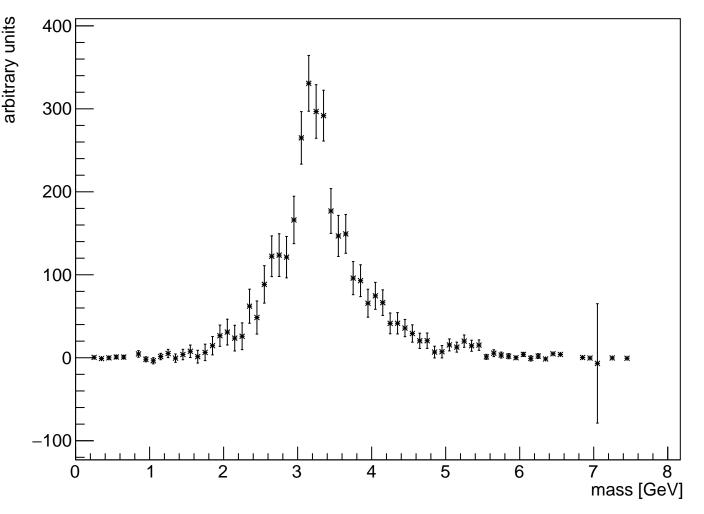
normalized dimuons vs. intensity, mass [6.9, 7.0] test70 arbitrary units **Entries** χ^2 / ndf 19.8 / 64 p0 -0.3146 ± 0.1898 p1 0.001747 ± 0.001255 RF00

normalized dimuons vs. intensity, mass [7.0, 7.1] test71 arbitrary units **Entries** 4 χ^2 / ndf 1046 / 64 12 p0 -6.779 ± 71.961 p1 0.008762 ± 0.080765 10 8 6 4 2 0 1000 500 1500 2000 2500 3000 RF00

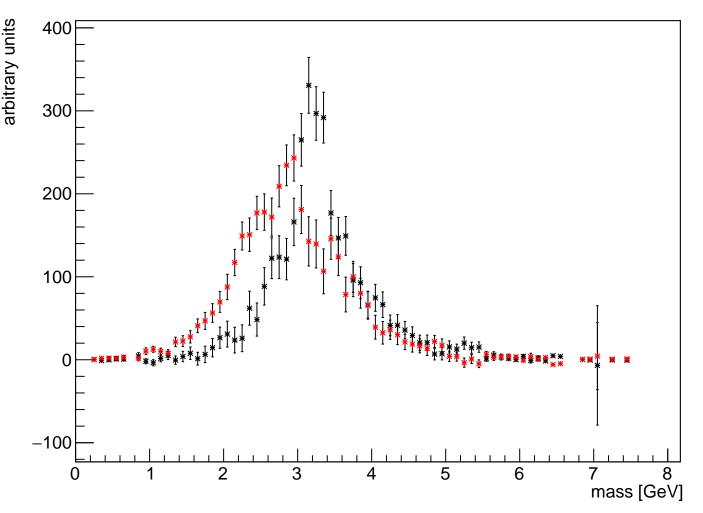
normalized dimuons vs. intensity, mass [7.2, 7.3] test73 arbitrary units 25 **Entries** 8 χ^2 / ndf 15.39 / 64 p0 -0.2474 ± 0.0018 20 p1 0.001438 ± 0.000021 15 10 5 0 500 1000 1500 2000 2500 3000 RF00

normalized dimuons vs. intensity, mass [7.4, 7.5] test75 arbitrary units **Entries** 6 18 χ^2 / ndf 22.35 / 64 16 p0 -0.5982 ± 0.0275 p1 0.002167 ± 0.000096 14 12 10 8 6 4 2 0 -2 500 1000 1500 2000 2500 3000 RF00

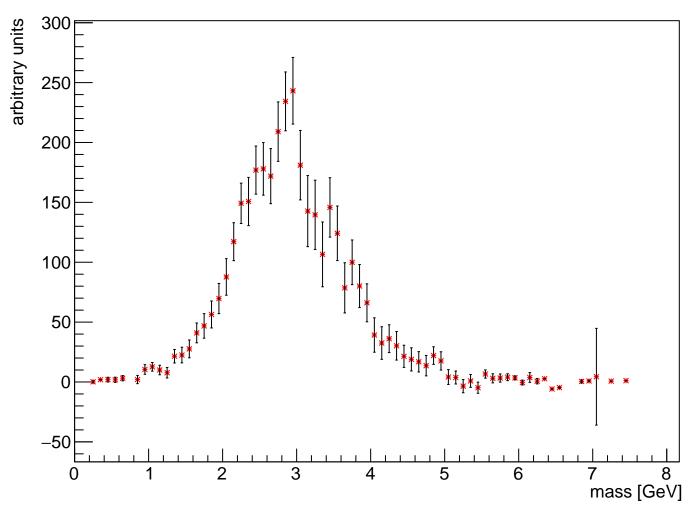
Signal vs. mass, RF00=[0,1000]



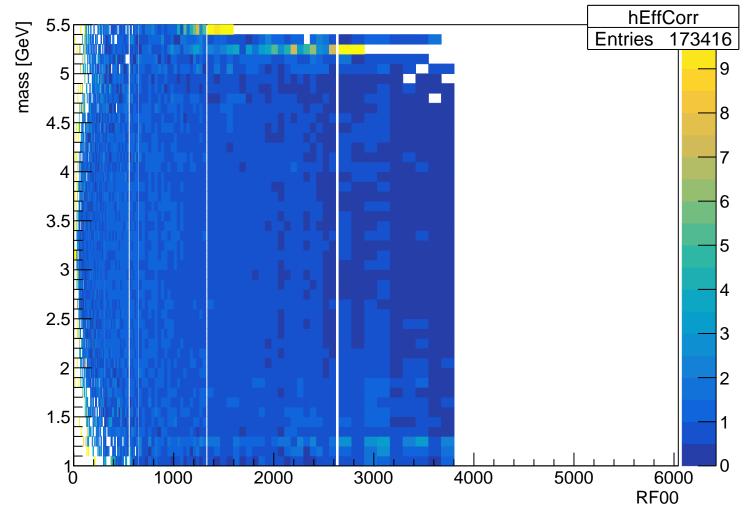
Signal vs. mass, RF00=[0,1000]



Background vs. mass, RF00=[0,1000]



deviation from linear fit



deviation from linear fit χ^2 / ndf 210.1 / 60 data/fit p0 1.048 ± 0.01602 1.4 p1 $-5.641e-05 \pm 2.347e-05$ 1.2 8.0 0.6 0.4 0.2 0 500 1000 1500 2000 2500 3000 3500 4000

RF00

deviation from linear fit χ^2 / ndf 210.1 / 60 data/fit p0 1.048 ± 0.01602 1.4 p1 $-5.641e-05 \pm 2.347e-05$ 1.2 0.6 0.4 0.2 0 500 1000 1500 2000 2500 3000 3500 4000 RF00