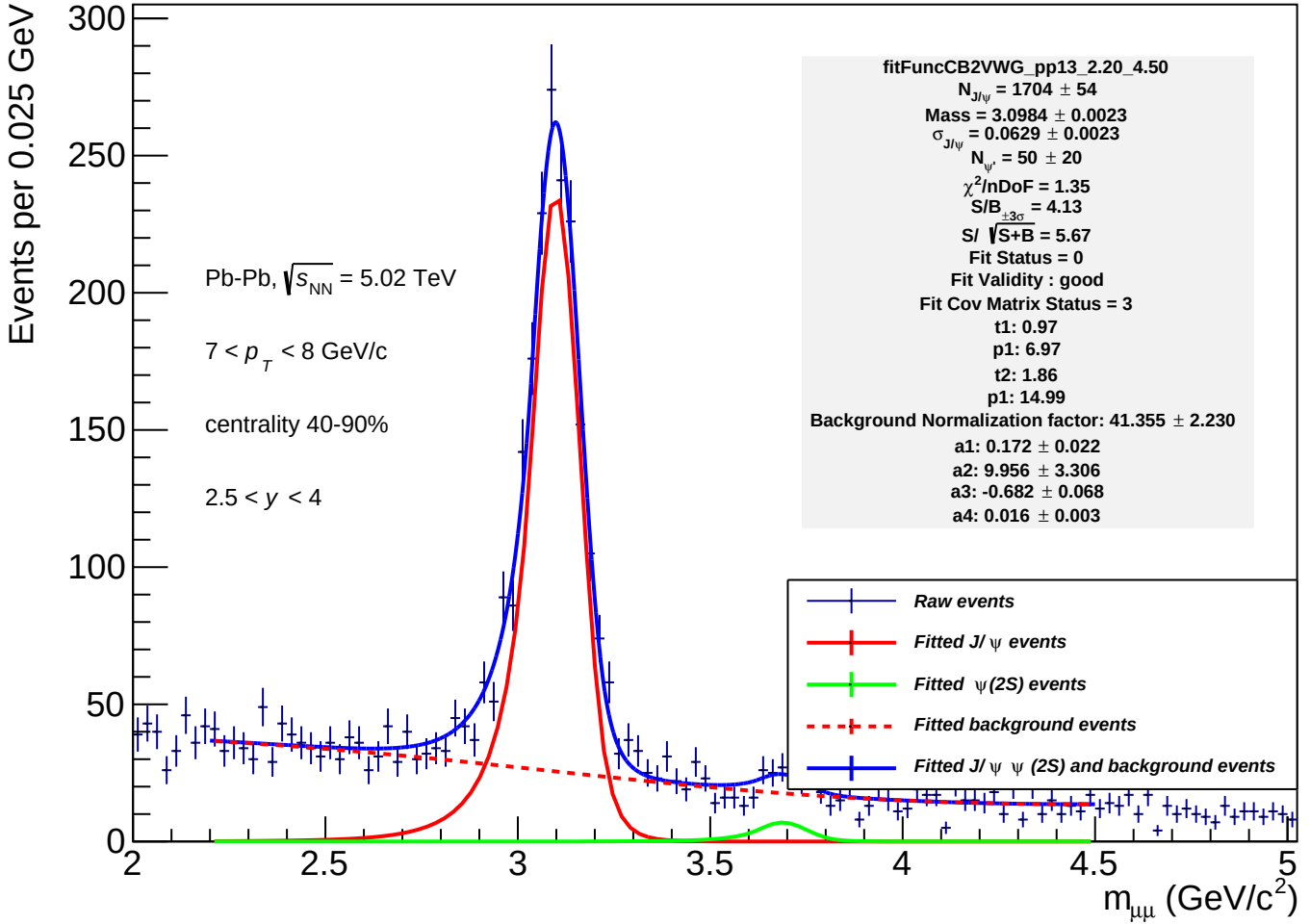
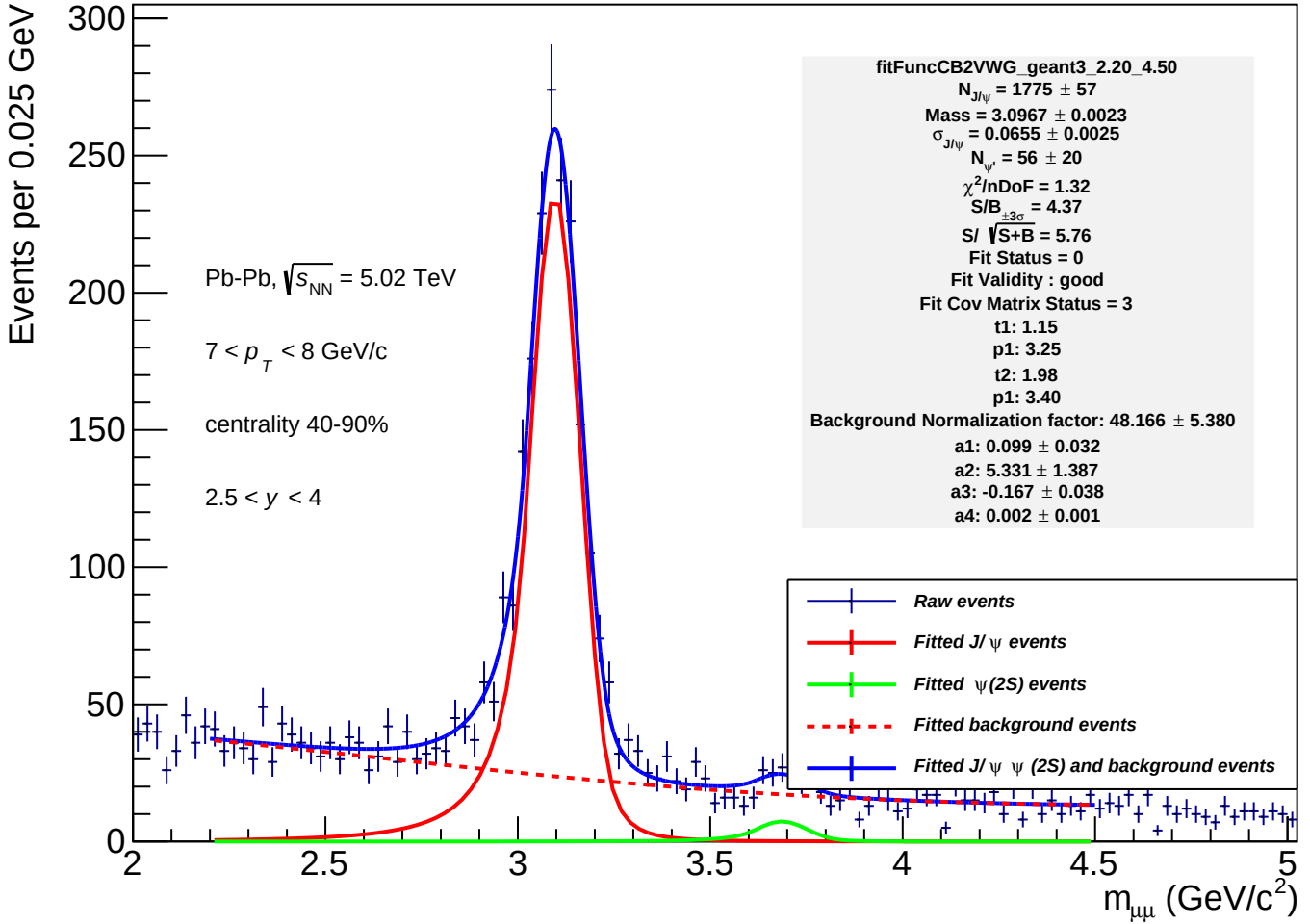
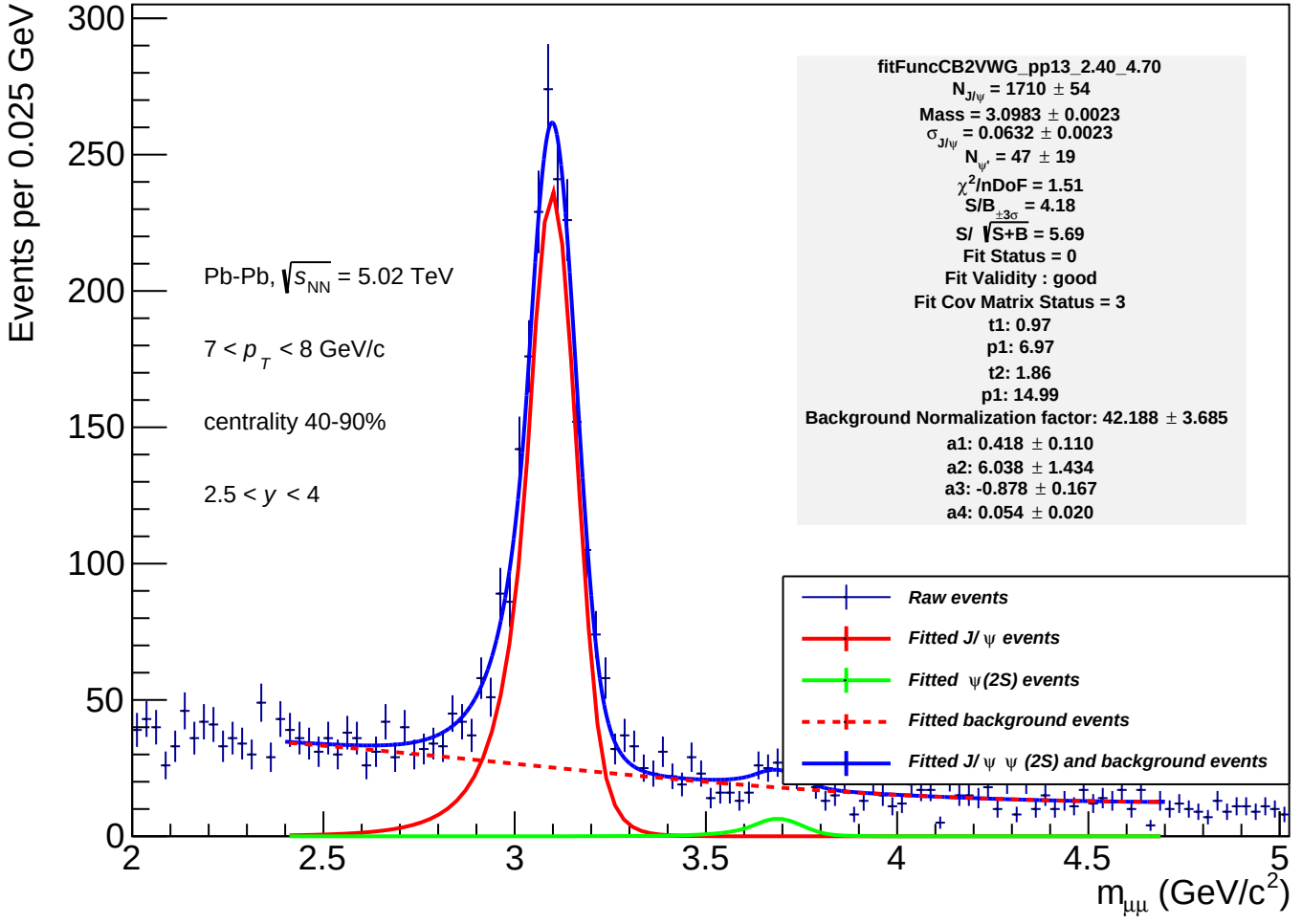
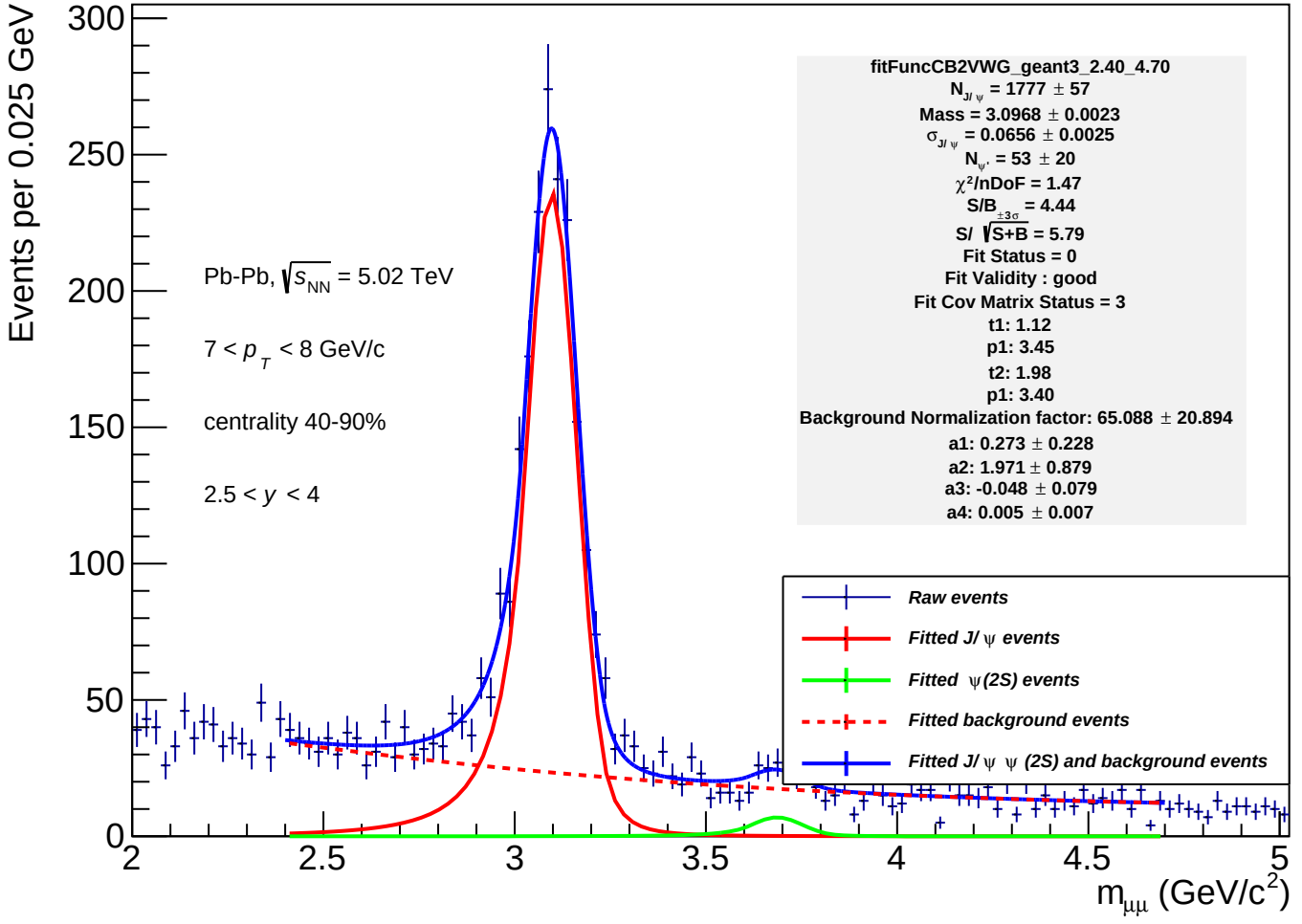
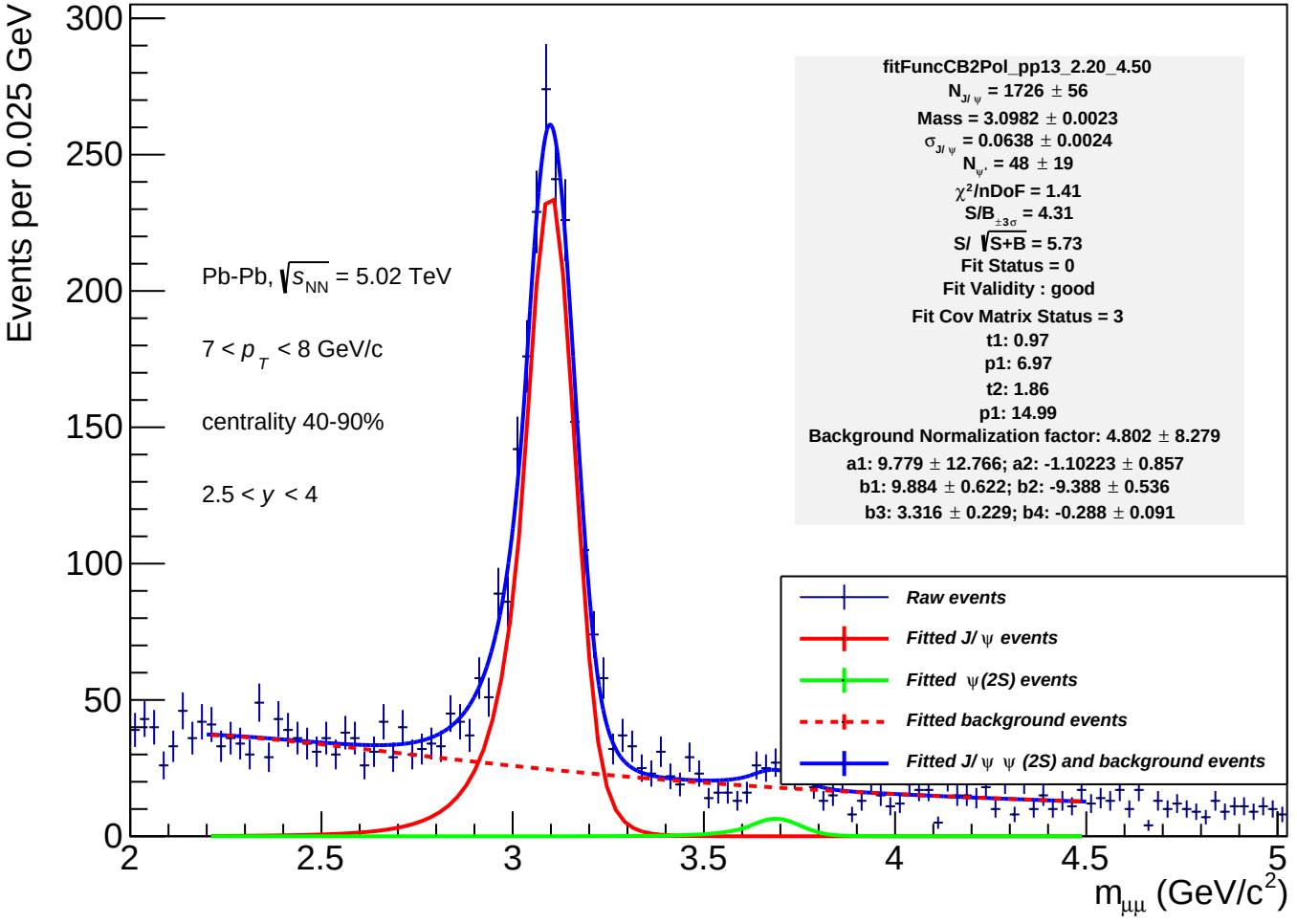
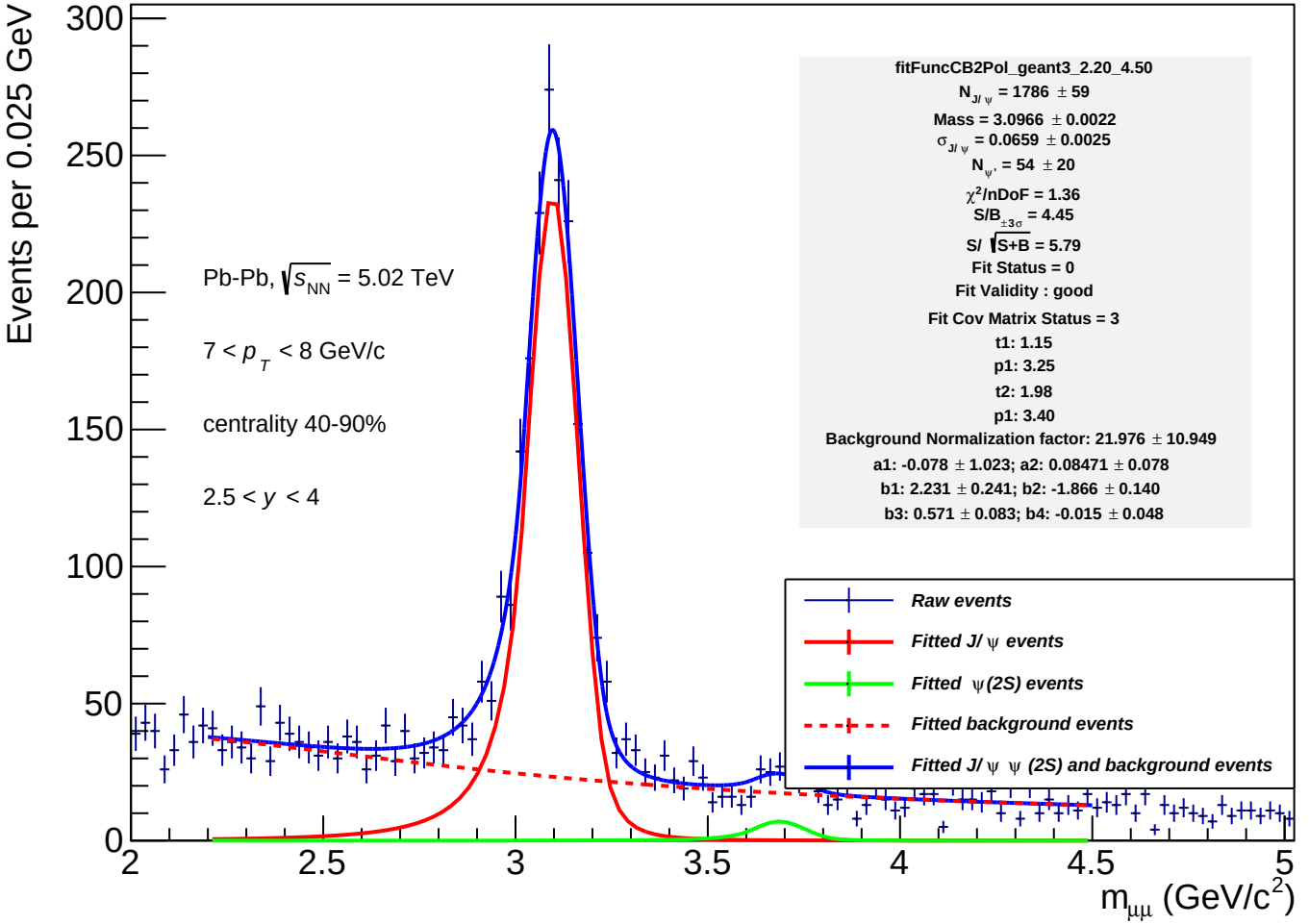

Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2VWG_pp13_2.20_4.50
$N_{J/\psi}$ = 1704 ± 54
Mass = 3.0984 ± 0.0023
$\sigma_{J/\psi}$ = 0.0629 ± 0.0023
$N_{\psi'}$ = 50 ± 20
χ^2/nDoF = 1.35
S/$B_{\pm 3\sigma}$ = 4.13
S/ $\sqrt{S+B}$ = 5.67
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Background Normalization factor: 41.355 ± 2.230
a1: 0.172 ± 0.022
a2: 9.956 ± 3.306
a3: -0.682 ± 0.068
a4: 0.016 ± 0.003
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2VWG_geant3_2.20_4.50
$N_{J/\psi}$ = 1775 ± 57
Mass = 3.0967 ± 0.0023
$\sigma_{J/\psi}$ = 0.0655 ± 0.0025
$N_{\psi'}$ = 56 ± 20
χ^2/nDoF = 1.32
$S/B_{\pm 3\sigma}$ = 4.37
$S/\sqrt{S+B}$ = 5.76
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 1.15
p1: 3.25
t2: 1.98
p1: 3.40
Background Normalization factor: 48.166 ± 5.380
a1: 0.099 ± 0.032
a2: 5.331 ± 1.387
a3: -0.167 ± 0.038
a4: 0.002 ± 0.001
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2VWG_pp13_2.40_4.70
$N_{J/\psi}$ = 1710 ± 54
Mass = 3.0983 ± 0.0023
$\sigma_{J/\psi}$ = 0.0632 ± 0.0023
$N_{\psi'}$ = 47 ± 19
χ^2/nDoF = 1.51
S/$B_{\pm 3\sigma}$ = 4.18
S/ $\sqrt{S+B}$ = 5.69
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Background Normalization factor: 42.188 ± 3.685
a1: 0.418 ± 0.110
a2: 6.038 ± 1.434
a3: -0.878 ± 0.167
a4: 0.054 ± 0.020
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ (2S) and background events


Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2VWG_geant3_2.40_4.70
$N_{J/\psi}$ = 1777 ± 57
Mass = 3.0968 ± 0.0023
$\sigma_{J/\psi}$ = 0.0656 ± 0.0025
$N_{\psi'}$ = 53 ± 20
χ^2/nDoF = 1.47
S/$B_{\pm 3\sigma}$ = 4.44
S/ $\sqrt{S+B}$ = 5.79
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 1.12
p1: 3.45
t2: 1.98
p1: 3.40
Background Normalization factor: 65.088 ± 20.894
a1: 0.273 ± 0.228
a2: 1.971 ± 0.879
a3: -0.048 ± 0.079
a4: 0.005 ± 0.007
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Pol_pp13_2.20_4.50
$N_{J/\psi}$ = 1726 ± 56
Mass = 3.0982 ± 0.0023
$\sigma_{J/\psi}$ = 0.0638 ± 0.0024
$N_{\psi'}$ = 48 ± 19
χ^2/nDoF = 1.41
S/$B_{\pm 3\sigma}$ = 4.31
S/ $\sqrt{S+B}$ = 5.73
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Background Normalization factor: 4.802 ± 8.279
a1: 9.779 ± 12.766; a2: -1.10223 ± 0.857
b1: 9.884 ± 0.622; b2: -9.388 ± 0.536
b3: 3.316 ± 0.229; b4: -0.288 ± 0.091
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
300
250
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100
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0
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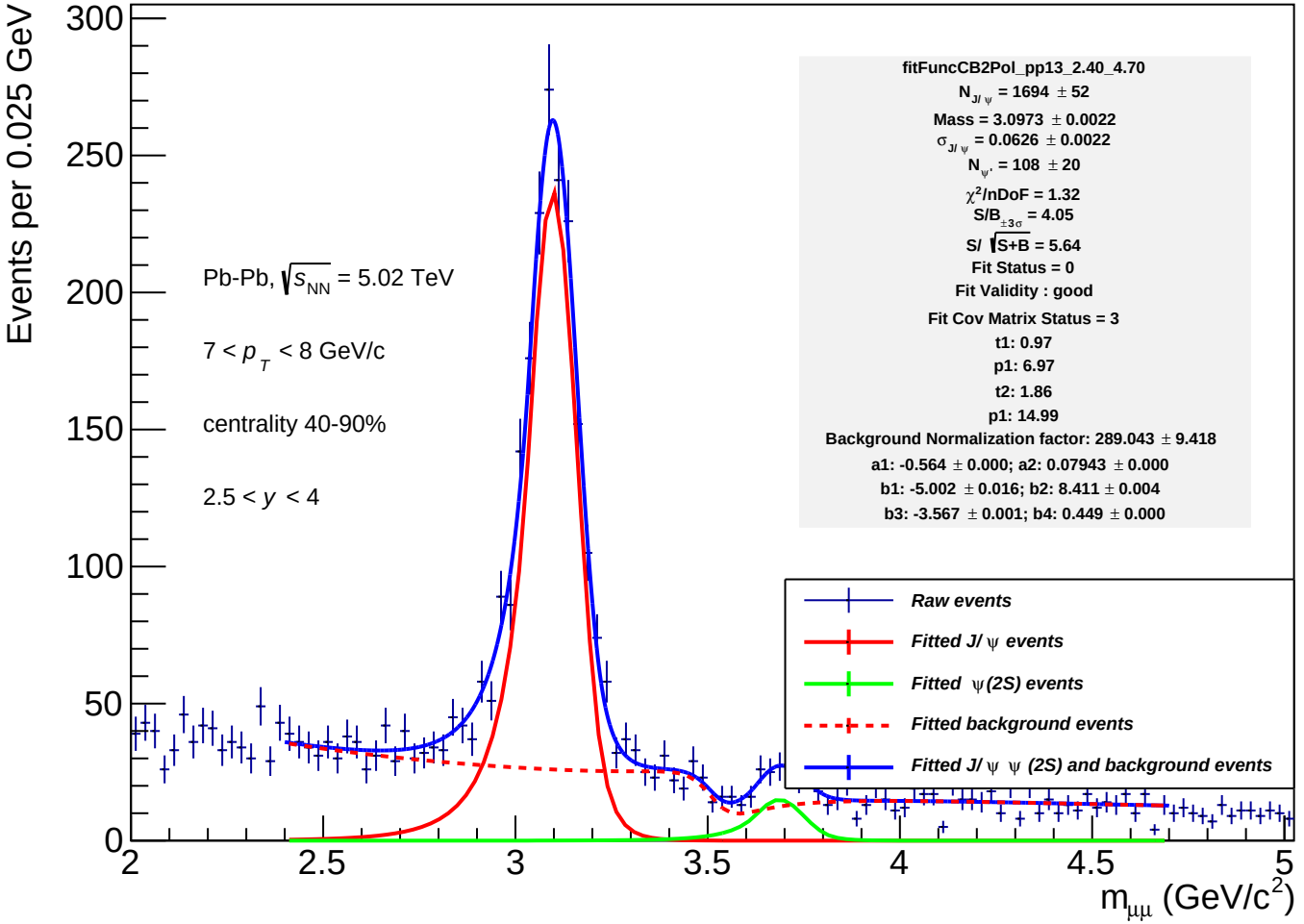
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Pol_geant3_2.20_4.50
$N_{J/\psi}$ = 1786 ± 59
Mass = 3.0966 ± 0.0022
$\sigma_{J/\psi}$ = 0.0659 ± 0.0025
$N_{\psi'}$ = 54 ± 20
χ^2/nDoF = 1.36
$S/B_{\pm 3\sigma}$ = 4.45
$S/\sqrt{S+B}$ = 5.79
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 1.15
p1: 3.25
t2: 1.98
p1: 3.40
Background Normalization factor: 21.976 ± 10.949
a1: -0.078 ± 1.023; a2: 0.08471 ± 0.078
b1: 2.231 ± 0.241; b2: -1.866 ± 0.140
b3: 0.571 ± 0.083; b4: -0.015 ± 0.048
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
300
250
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100
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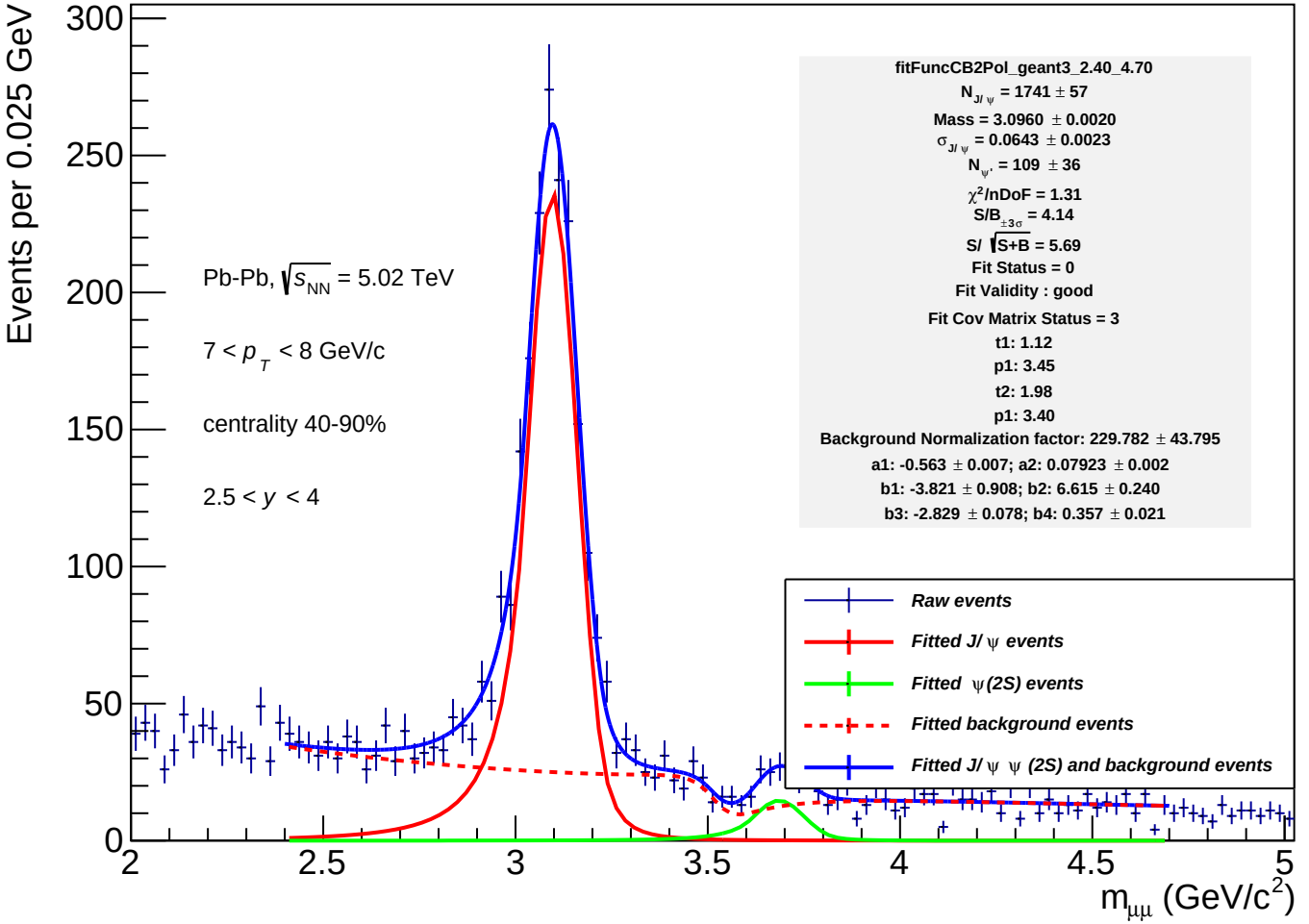
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Pol_pp13_2.40_4.70
$N_{J/\psi}$ = 1694 ± 52
Mass = 3.0973 ± 0.0022
$\sigma_{J/\psi}$ = 0.0626 ± 0.0022
$N_{\psi'}$ = 108 ± 20
χ^2/nDoF = 1.32
$S/B_{\pm 3\sigma}$ = 4.05
$S/\sqrt{S+B}$ = 5.64
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Background Normalization factor: 289.043 ± 9.418
a1: -0.564 ± 0.000; a2: 0.07943 ± 0.000
b1: -5.002 ± 0.016; b2: 8.411 ± 0.004
b3: -3.567 ± 0.001; b4: 0.449 ± 0.000
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ (2S) and background events


Events per 0.025 GeV
300
250
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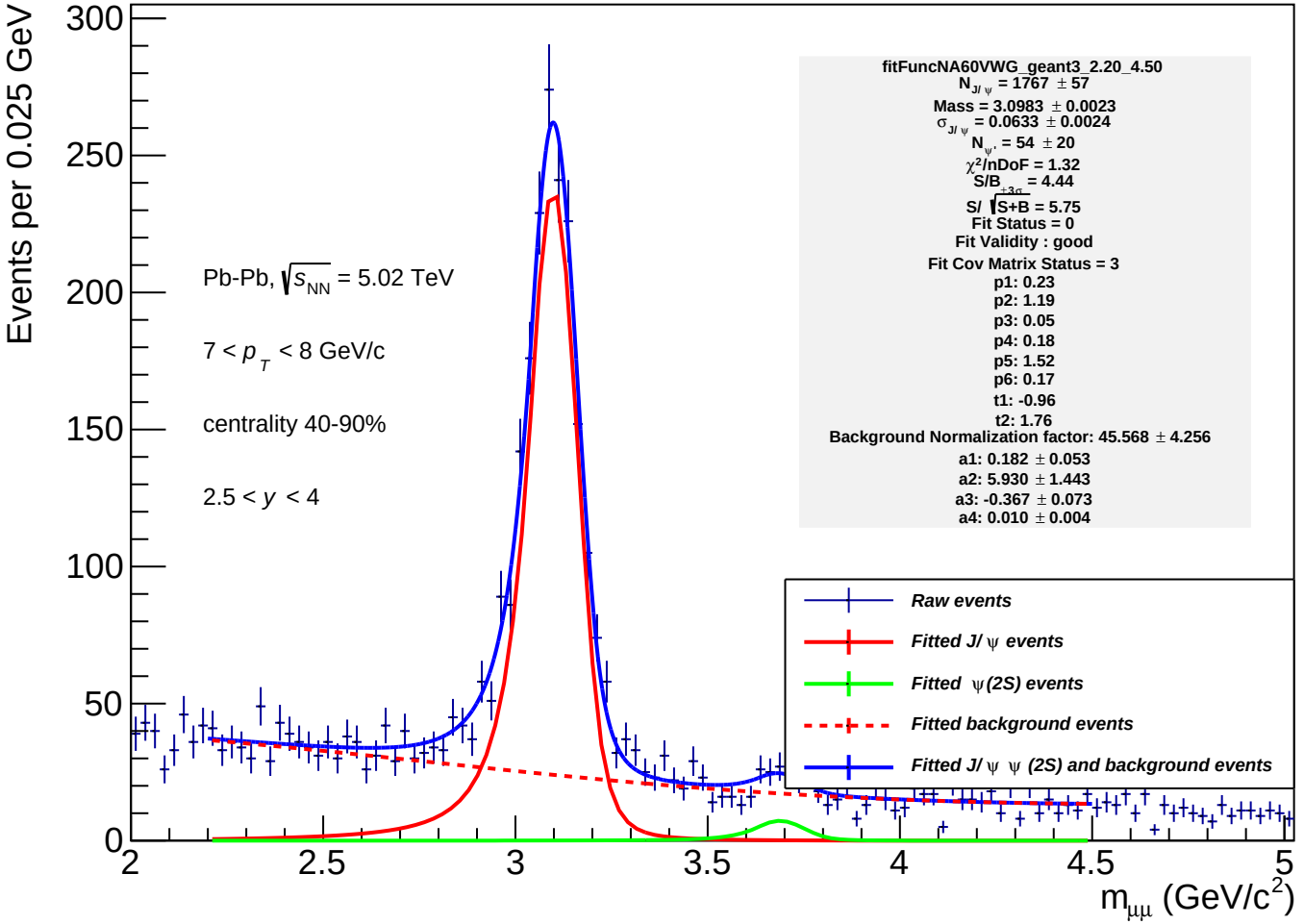
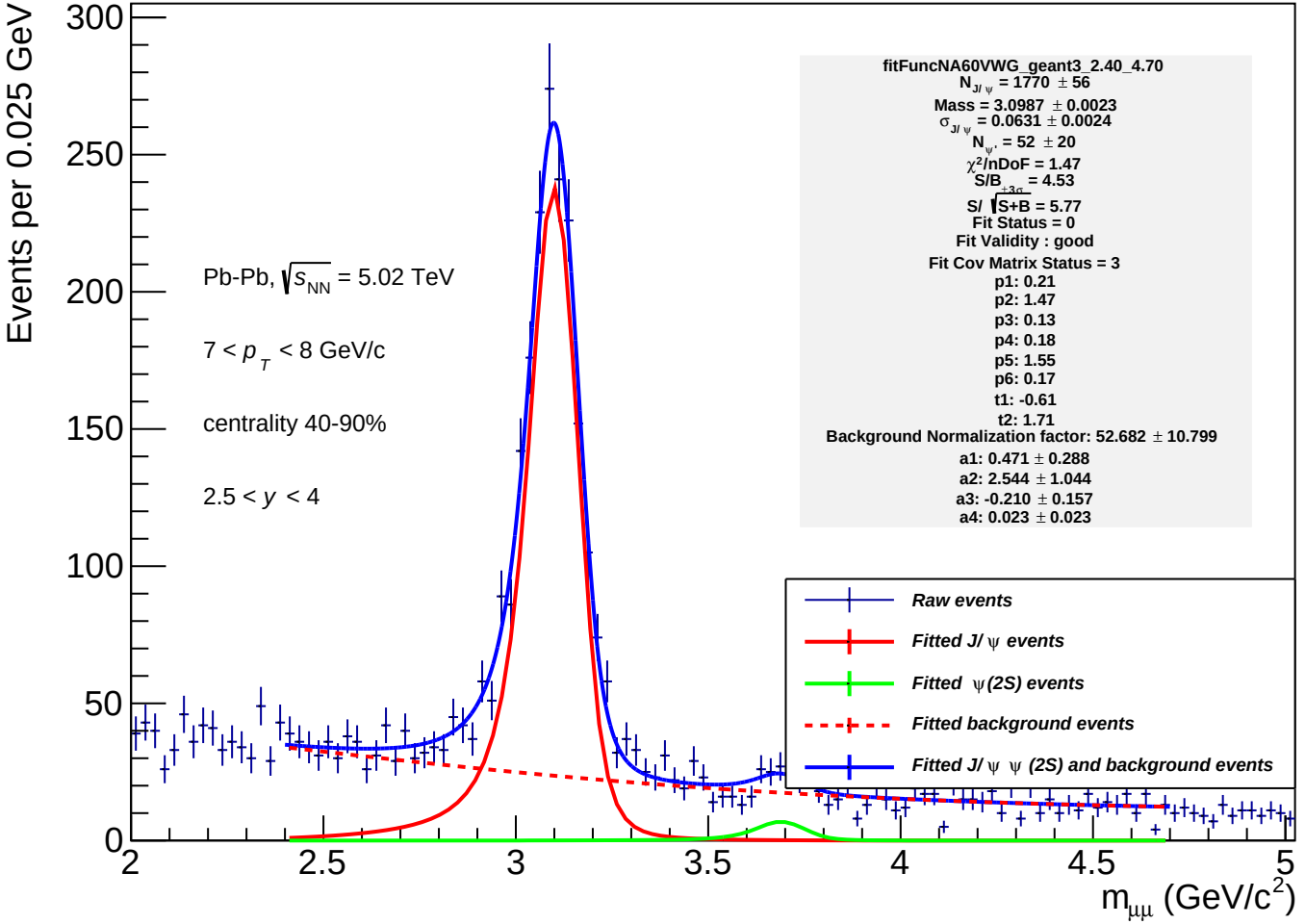
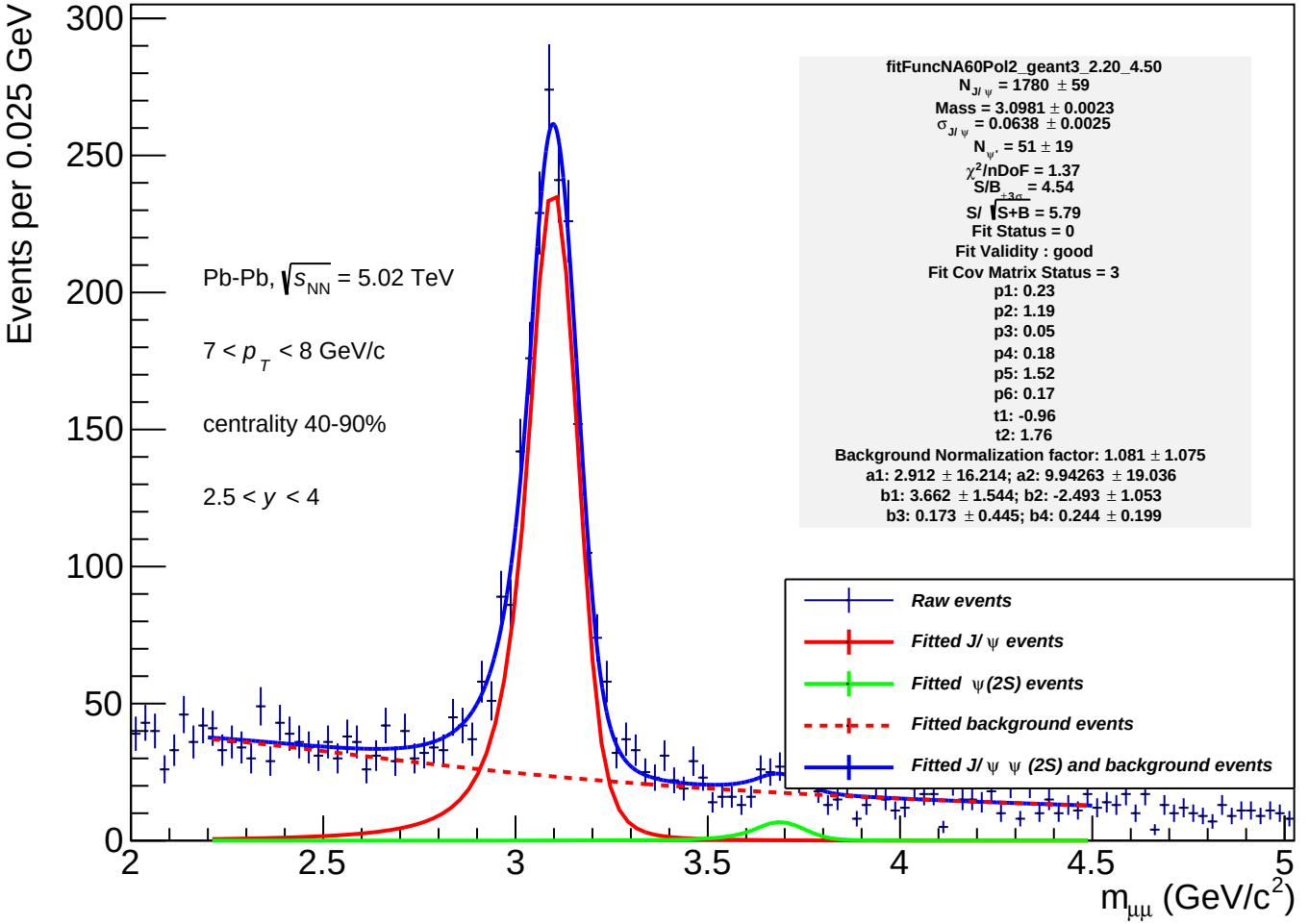
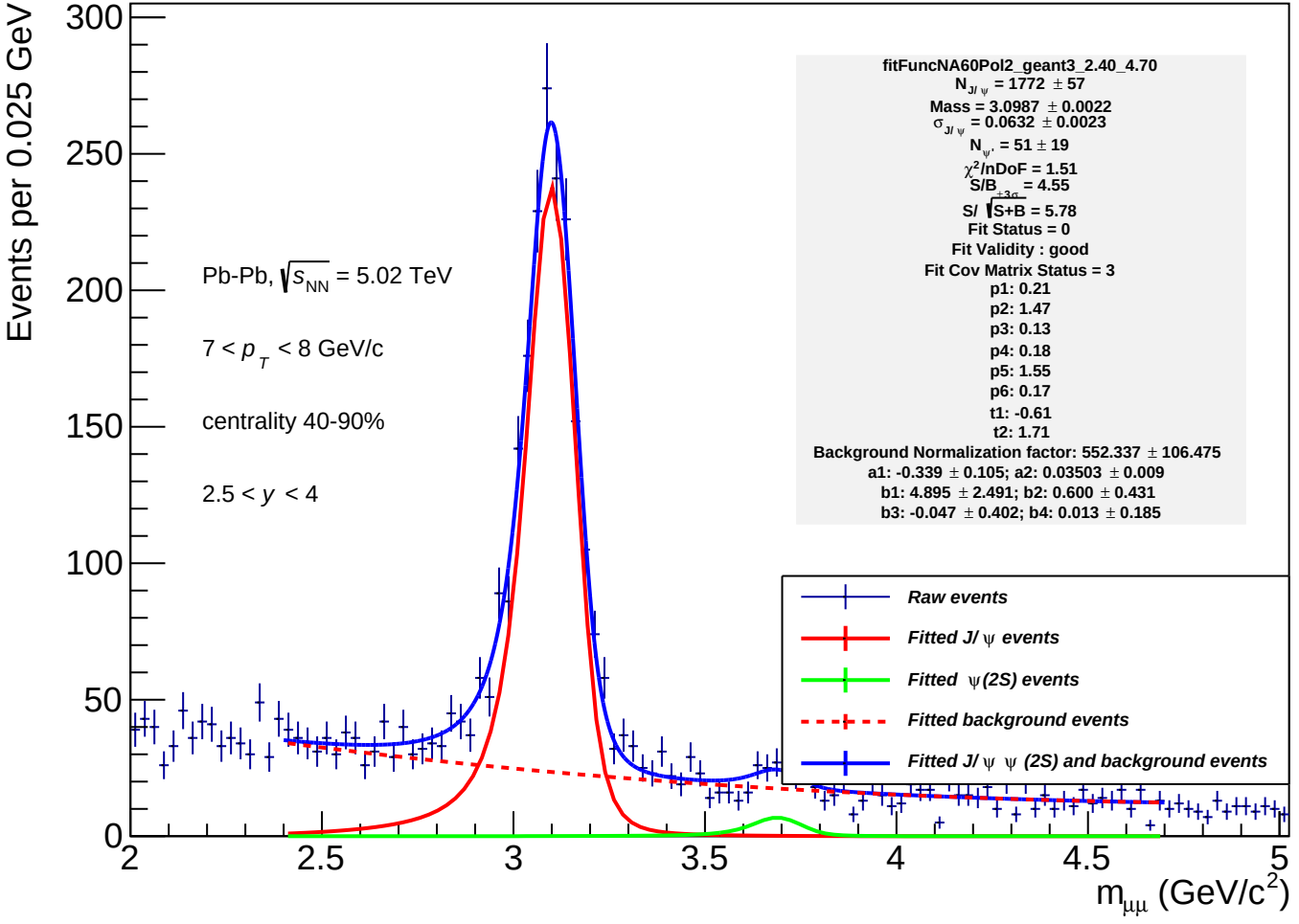
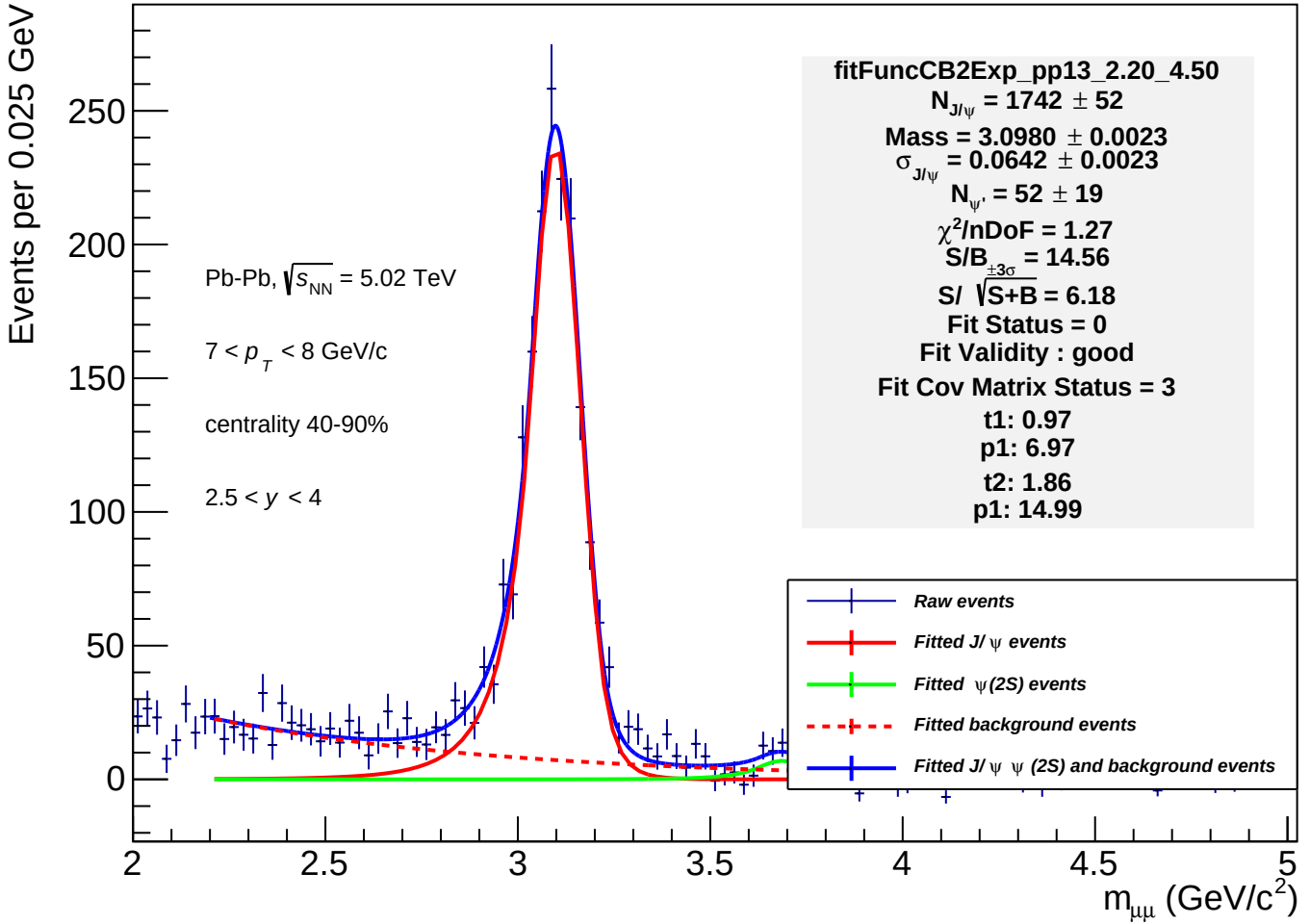
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Pol_geant3_2.40_4.70
$N_{J/\psi}$ = 1741 ± 57
Mass = 3.0960 ± 0.0020
$\sigma_{J/\psi}$ = 0.0643 ± 0.0023
$N_{\psi'}$ = 109 ± 36
χ^2/nDoF = 1.31
S/$B_{\pm 3\sigma}$ = 4.14
S/ $\sqrt{S+B}$ = 5.69
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 1.12
p1: 3.45
t2: 1.98
p1: 3.40
Background Normalization factor: 229.782 ± 43.795
a1: -0.563 ± 0.007; a2: 0.07923 ± 0.002
b1: -3.821 ± 0.908; b2: 6.615 ± 0.240
b3: -2.829 ± 0.078; b4: 0.357 ± 0.021
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events

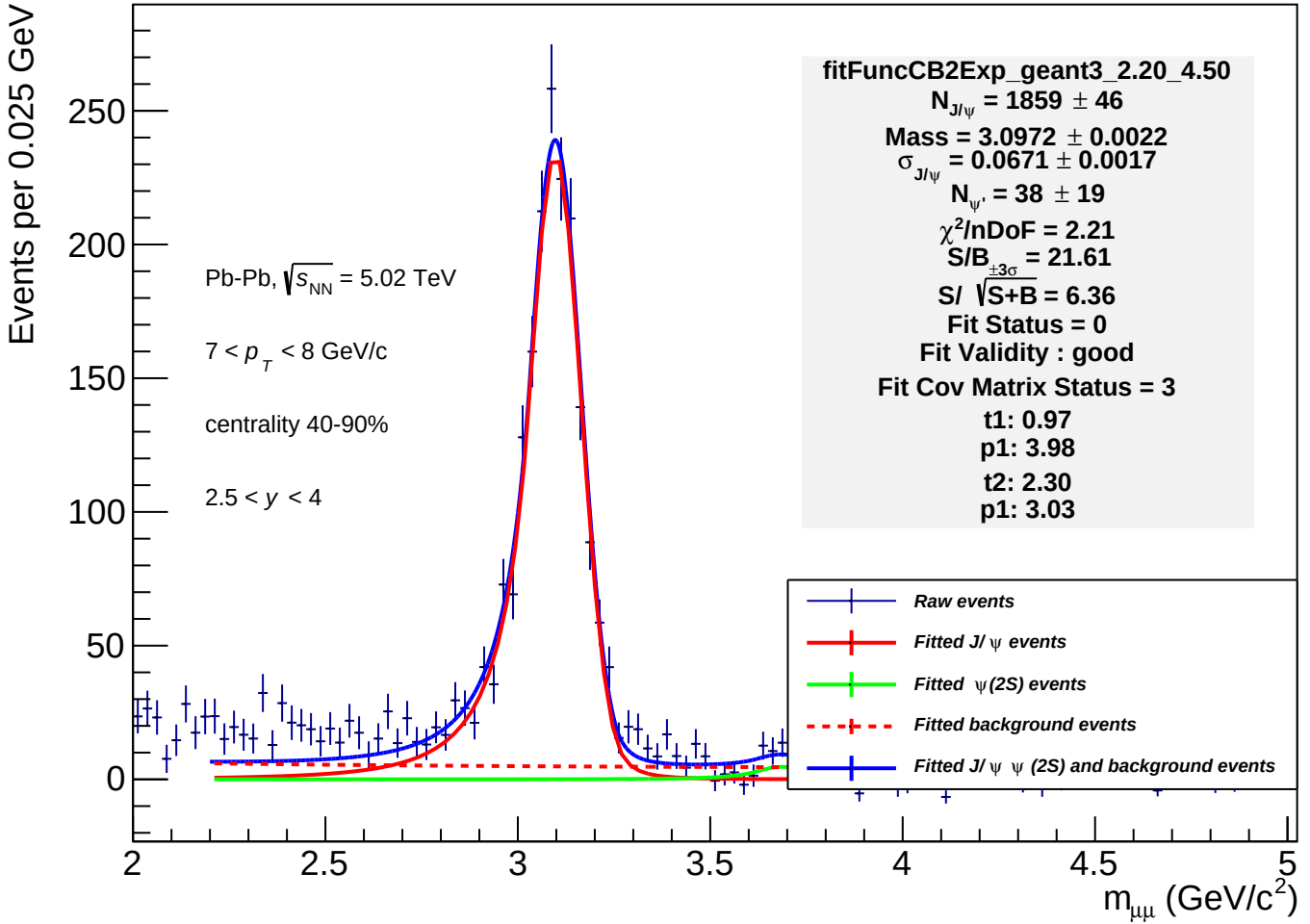

Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60VWG_geant3_2.20_4.50
$N_{J/\psi}$ = 1767 ± 57
Mass = 3.0983 ± 0.0023
$\sigma_{J/\psi}$ = 0.0633 ± 0.0024
$N_{\psi'}$ = 54 ± 20
χ^2/nDoF = 1.32
$S/B_{\pm 3\sigma}$ = 4.44
$S/\sqrt{S+B}$ = 5.75
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.23
p2: 1.19
p3: 0.05
p4: 0.18
p5: 1.52
p6: 0.17
t1: -0.96
t2: 1.76
Background Normalization factor: 45.568 ± 4.256
a1: 0.182 ± 0.053
a2: 5.930 ± 1.443
a3: -0.367 ± 0.073
a4: 0.010 ± 0.004
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events

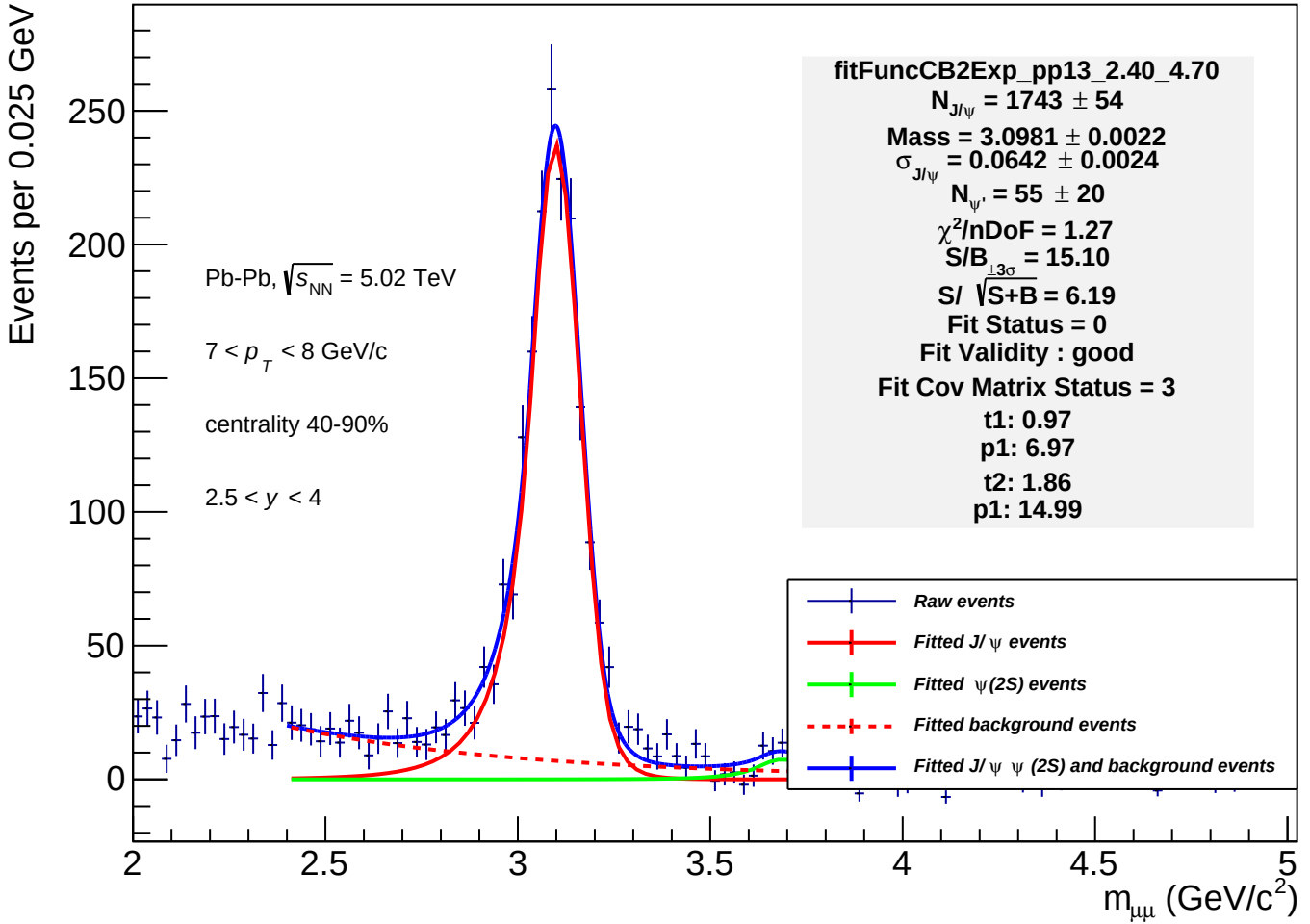

Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60VWG_geant3_2.40_4.70
$N_{J/\psi}$ = 1770 ± 56
Mass = 3.0987 ± 0.0023
$\sigma_{J/\psi}$ = 0.0631 ± 0.0024
$N_{\psi'}$ = 52 ± 20
χ^2/nDoF = 1.47
$S/B_{\pm 3\sigma}$ = 4.53
$S/\sqrt{S+B}$ = 5.77
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.21
p2: 1.47
p3: 0.13
p4: 0.18
p5: 1.55
p6: 0.17
t1: -0.61
t2: 1.71
Background Normalization factor: 52.682 ± 10.799
a1: 0.471 ± 0.288
a2: 2.544 ± 1.044
a3: -0.210 ± 0.157
a4: 0.023 ± 0.023
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events

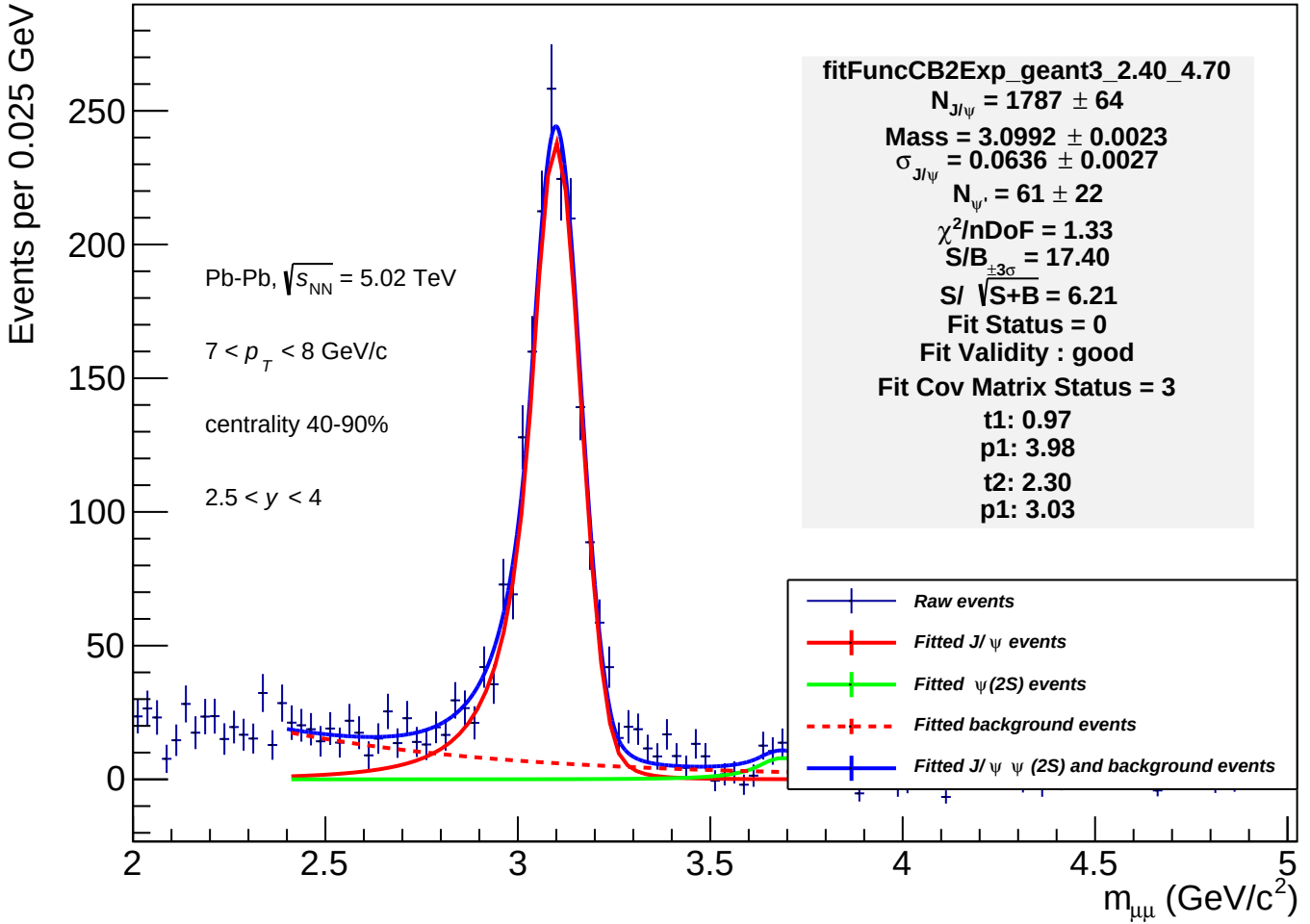

Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60Pol2_geant3_2.20_4.50
$N_{J/\psi}$ = 1780 ± 59
Mass = 3.0981 ± 0.0023
$\sigma_{J/\psi}$ = 0.0638 ± 0.0025
$N_{\psi'}$ = 51 ± 19
χ^2/nDoF = 1.37
$S/B_{\pm 3\sigma}$ = 4.54
$S/\sqrt{S+B}$ = 5.79
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.23
p2: 1.19
p3: 0.05
p4: 0.18
p5: 1.52
p6: 0.17
t1: -0.96
t2: 1.76
Background Normalization factor: 1.081 ± 1.075
a1: 2.912 ± 16.214; a2: 9.94263 ± 19.036
b1: 3.662 ± 1.544; b2: -2.493 ± 1.053
b3: 0.173 ± 0.445; b4: 0.244 ± 0.199
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ (2S) and background events

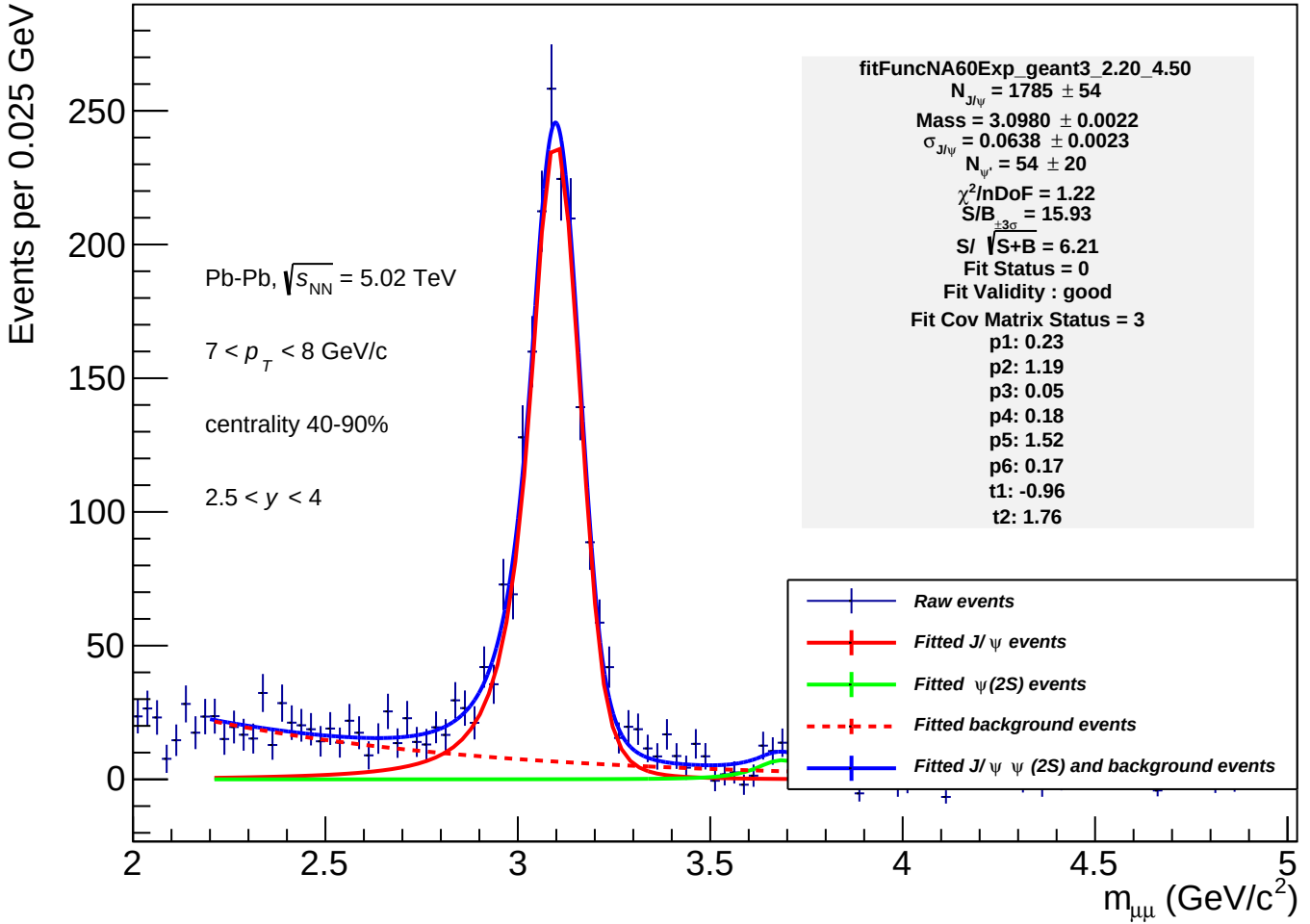

Events per 0.025 GeV
300
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60Pol2_geant3_2.40_4.70
$N_{J/\psi}$ = 1772 ± 57
Mass = 3.0987 ± 0.0022
$\sigma_{J/\psi}$ = 0.0632 ± 0.0023
$N_{\psi'}$ = 51 ± 19
χ^2/nDoF = 1.51
S/$B_{\pm 3\sigma}$ = 4.55
S/$\sqrt{S+B}$ = 5.78
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.21
p2: 1.47
p3: 0.13
p4: 0.18
p5: 1.55
p6: 0.17
t1: -0.61
t2: 1.71
Background Normalization factor: 552.337 ± 106.475
a1: -0.339 ± 0.105; a2: 0.03503 ± 0.009
b1: 4.895 ± 2.491; b2: 0.600 ± 0.431
b3: -0.047 ± 0.402; b4: 0.013 ± 0.185
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events

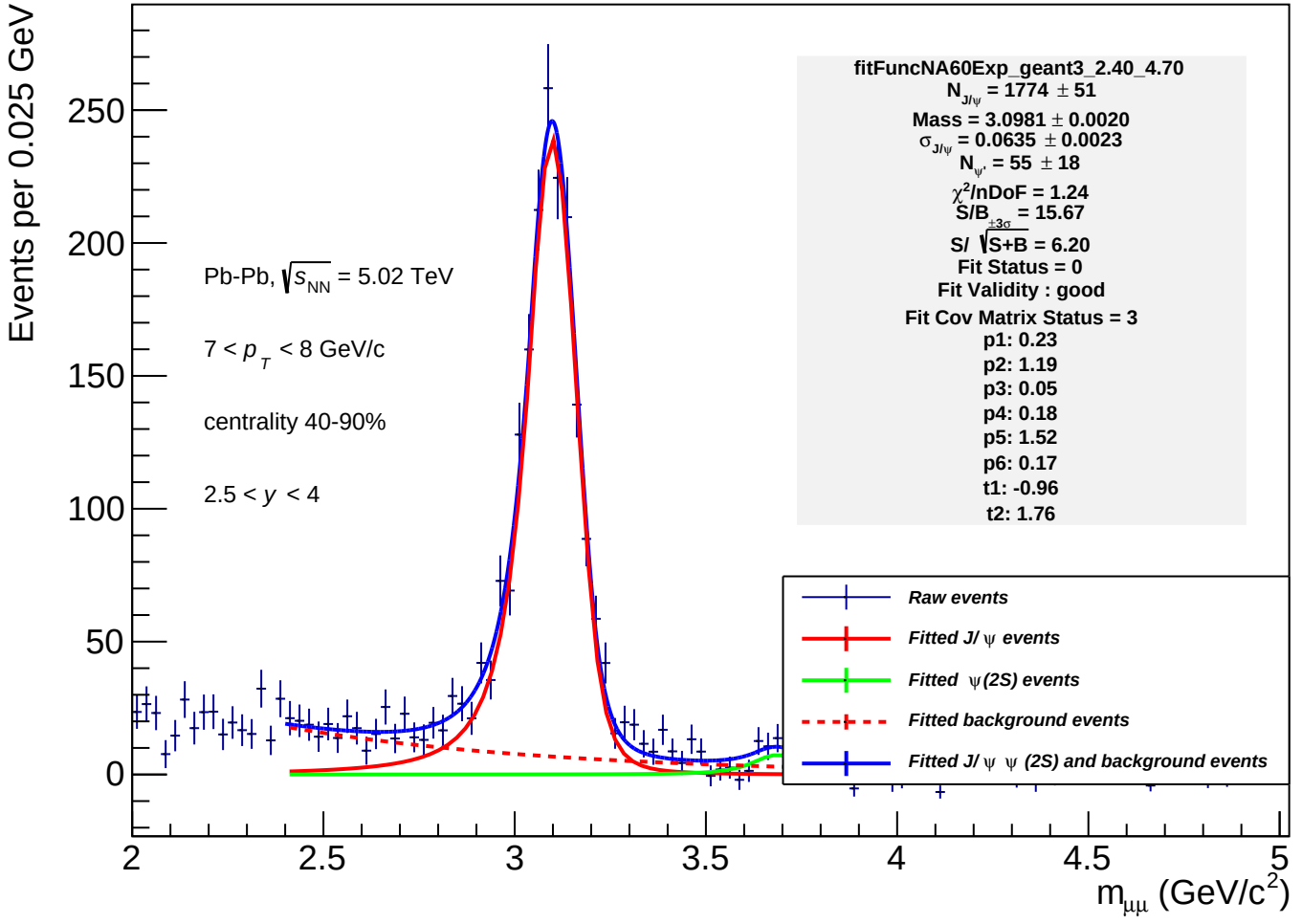

Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Exp_pp13_2.20_4.50
$N_{J/\psi}$ = 1742 ± 52
Mass = 3.0980 ± 0.0023
$\sigma_{J/\psi}$ = 0.0642 ± 0.0023
$N_{\psi'}$ = 52 ± 19
χ^2/nDoF = 1.27
$S/B_{\pm 3\sigma}$ = 14.56
$S/\sqrt{S+B}$ = 6.18
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Exp_geant3_2.20_4.50
$N_{J/\psi}$ = 1859 ± 46
Mass = 3.0972 ± 0.0022
$\sigma_{J/\psi}$ = 0.0671 ± 0.0017
$N_{\psi'}$ = 38 ± 19
χ^2/nDoF = 2.21
$S/B_{\pm 3\sigma}$ = 21.61
$S/\sqrt{S+B}$ = 6.36
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 3.98
t2: 2.30
p1: 3.03
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Exp_pp13_2.40_4.70
$N_{J/\psi}$ = 1743 ± 54
Mass = 3.0981 ± 0.0022
$\sigma_{J/\psi}$ = 0.0642 ± 0.0024
$N_{\psi'}$ = 55 ± 20
χ^2/nDoF = 1.27
$S/B_{\pm 3\sigma}$ = 15.10
$S/\sqrt{S+B}$ = 6.19
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 6.97
t2: 1.86
p1: 14.99
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncCB2Exp_geant3_2.40_4.70
$N_{J/\psi}$ = 1787 ± 64
Mass = 3.0992 ± 0.0023
$\sigma_{J/\psi}$ = 0.0636 ± 0.0027
$N_{\psi'}$ = 61 ± 22
χ^2/nDoF = 1.33
$S/B_{\pm 3\sigma}$ = 17.40
$S/\sqrt{S+B}$ = 6.21
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
t1: 0.97
p1: 3.98
t2: 2.30
p1: 3.03
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60Exp_geant3_2.20_4.50
$N_{J/\psi}$ = 1785 ± 54
Mass = 3.0980 ± 0.0022
$\sigma_{J/\psi}$ = 0.0638 ± 0.0023
$N_{\psi'}$ = 54 ± 20
χ^2/nDoF = 1.22
$S/B_{\pm 3\sigma}$ = 15.93
$S/\sqrt{S+B}$ = 6.21
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.23
p2: 1.19
p3: 0.05
p4: 0.18
p5: 1.52
p6: 0.17
t1: -0.96
t2: 1.76
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events


Events per 0.025 GeV
250
200
150
100
50
0
2
2.5
3
3.5
4
4.5
5
$m_{\mu\mu}$ (GeV/c^2)
Pb-Pb, $\sqrt{s_{NN}}$ = 5.02 TeV
7 < p_T < 8 GeV/c
centrality 40-90%
2.5 < y < 4
fitFuncNA60Exp_geant3_2.40_4.70
$N_{J/\psi}$ = 1774 ± 51
Mass = 3.0981 ± 0.0020
$\sigma_{J/\psi}$ = 0.0635 ± 0.0023
$N_{\psi'}$ = 55 ± 18
χ^2/nDoF = 1.24
$S/B_{\pm 3\sigma}$ = 15.67
$S/\sqrt{S+B}$ = 6.20
Fit Status = 0
Fit Validity : good
Fit Cov Matrix Status = 3
p1: 0.23
p2: 1.19
p3: 0.05
p4: 0.18
p5: 1.52
p6: 0.17
t1: -0.96
t2: 1.76
Raw events
Fitted J/ψ events
Fitted ψ(2S) events
Fitted background events
Fitted J/ψ ψ(2S) and background events