

Events per 0.05 GeV

Pb-Pb, $\sqrt{s_{NN}} = 5.02$ TeV

$15 < p_T < 20$ GeV/c

centrality 40-90%

$2.5 < y < 4$

fitFuncCB2Pol_pp13_2.20_4.50

$N_{J/\psi} = 108 \pm 16$

Mass = 3.0911 ± 0.0103

$\sigma_{J/\psi} = 0.0699 \pm 0.0121$

$N_{\psi'} = 0 \pm 0$

$\chi^2/\text{nDoF} = 1.88$

$S/B_{\pm 3\sigma} = 3.82$

$S/\sqrt{S+B} = 2.00$

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: 0.214 ± 0.121

a1: 0.184 ± 1.820 ; a2: 0.18751 ± 0.726

b1: -8.855 ± 0.281 ; b2: 9.029 ± 0.202

b3: -2.991 ± 0.259 ; b4: 0.330 ± 0.054

- +— Raw events
- +— Fitted J/ψ events
- +— Fitted $\psi(2S)$ events
- - + - - Fitted background events
- +— Fitted J/ψ $\psi(2S)$ and background events

$m_{\mu\mu}$ (GeV/c²)

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fitFuncCB2Pol_geant3_2.20_4.50

$N_{J/\psi} = 125 \pm 14$

Mass = 3.0915 ± 0.0108

$\sigma_{J/\psi} = 0.0875 \pm 0.0131$

$N_{\psi'} = 7 \pm 1$

$\chi^2/\text{nDoF} = 2.00$

$S/B_{\pm 3\sigma} = 5.17$

$S/\sqrt{S+B} = 2.21$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

t1: 1.40

p1: 3.08

t2: 2.08

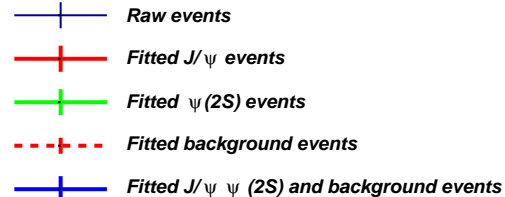
p1: 1.52

Background Normalization factor: 23.812 ± 68.531

a1: -6.822 ± 18.243 ; a2: 3.37428 ± 6.211

b1: 6.030 ± 56.472 ; b2: -39.055 ± 0.781

b3: -3.290 ± 10.622 ; b4: 9.550 ± 2.115



$m_{\mu\mu}$ (GeV/c²)

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fitFuncCB2Pol_pp13_2.40_4.70

$N_{J/\psi} = 112 \pm 16$

Mass = 3.0906 ± 0.0100

$\sigma_{J/\psi} = 0.0731 \pm 0.0124$

$N_{\psi'} = 0 \pm 0$

$\chi^2/nDoF = 1.43$

$S/B_{\pm 3\sigma} = 4.23$

$S/\sqrt{S+B} = 2.06$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

t1: 0.97

p1: 6.97

t2: 1.86

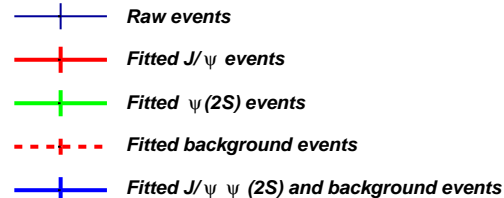
p1: 14.99

Background Normalization factor: 0.160 ± 0.136

a1: -4.730 ± 0.875 ; a2: 2.08515 ± 0.146

b1: -18.397 ± 1.563 ; b2: 18.032 ± 1.551

b3: -5.863 ± 0.681 ; b4: 0.644 ± 0.108



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fitFuncCB2Pol_geant3_2.40_4.70

$N_{J/\psi} = 102 \pm 24$

Mass = 3.0853 ± 0.0116

$\sigma_{J/\psi} = 0.0719 \pm 0.0148$

$N_{\psi^*} = 0 \pm 0$

$\chi^2/\text{nDoF} = 1.27$

$S/B_{\pm 3\sigma} = 2.64$

$S/\sqrt{S+B} = 1.85$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

t1: 1.39

p1: 3.13

t2: 2.10

p1: 1.47

Background Normalization factor: 10.682 ± 4.031

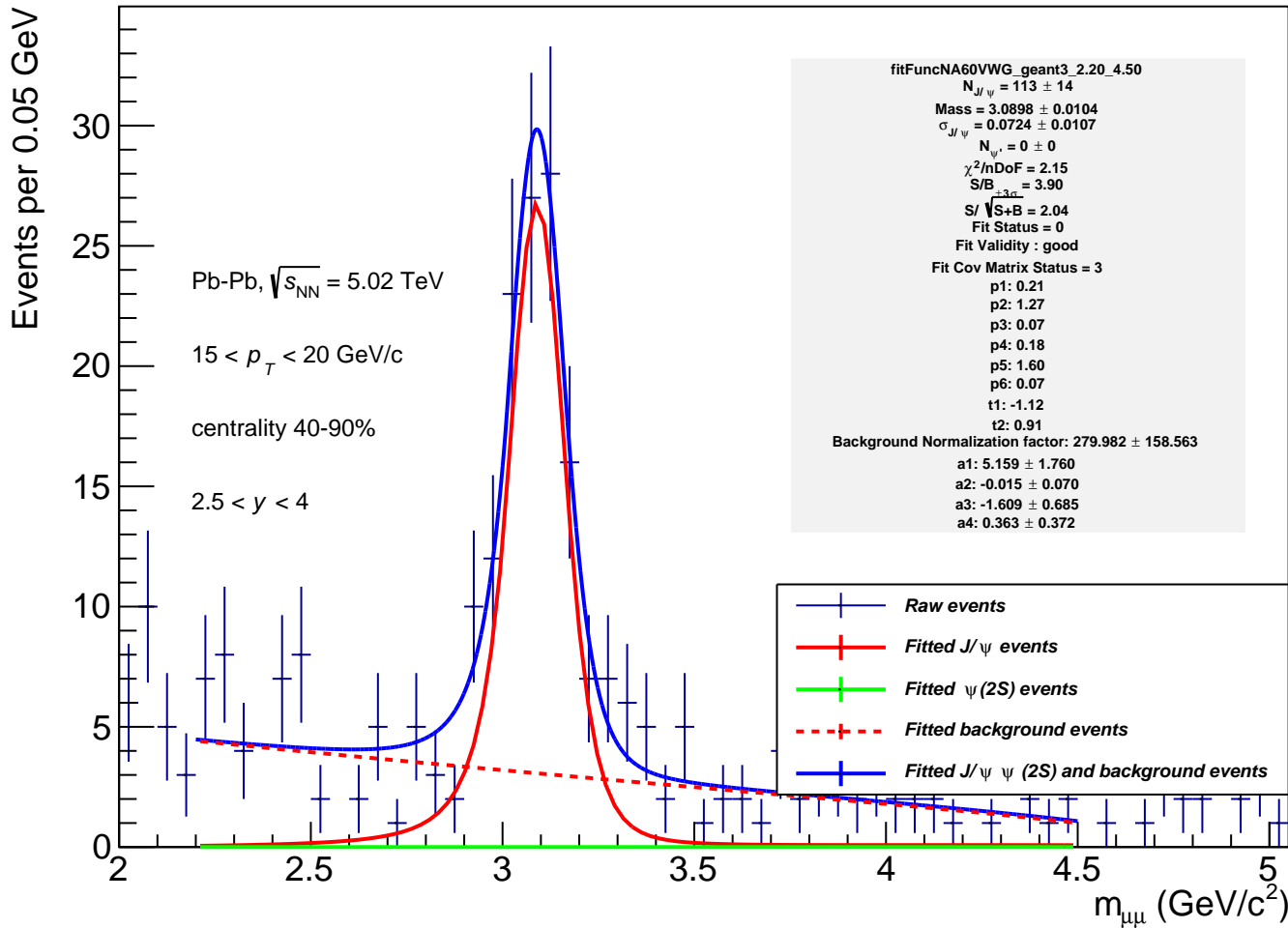
a1: -0.748 ± 0.043 ; a2: 0.14091 ± 0.016

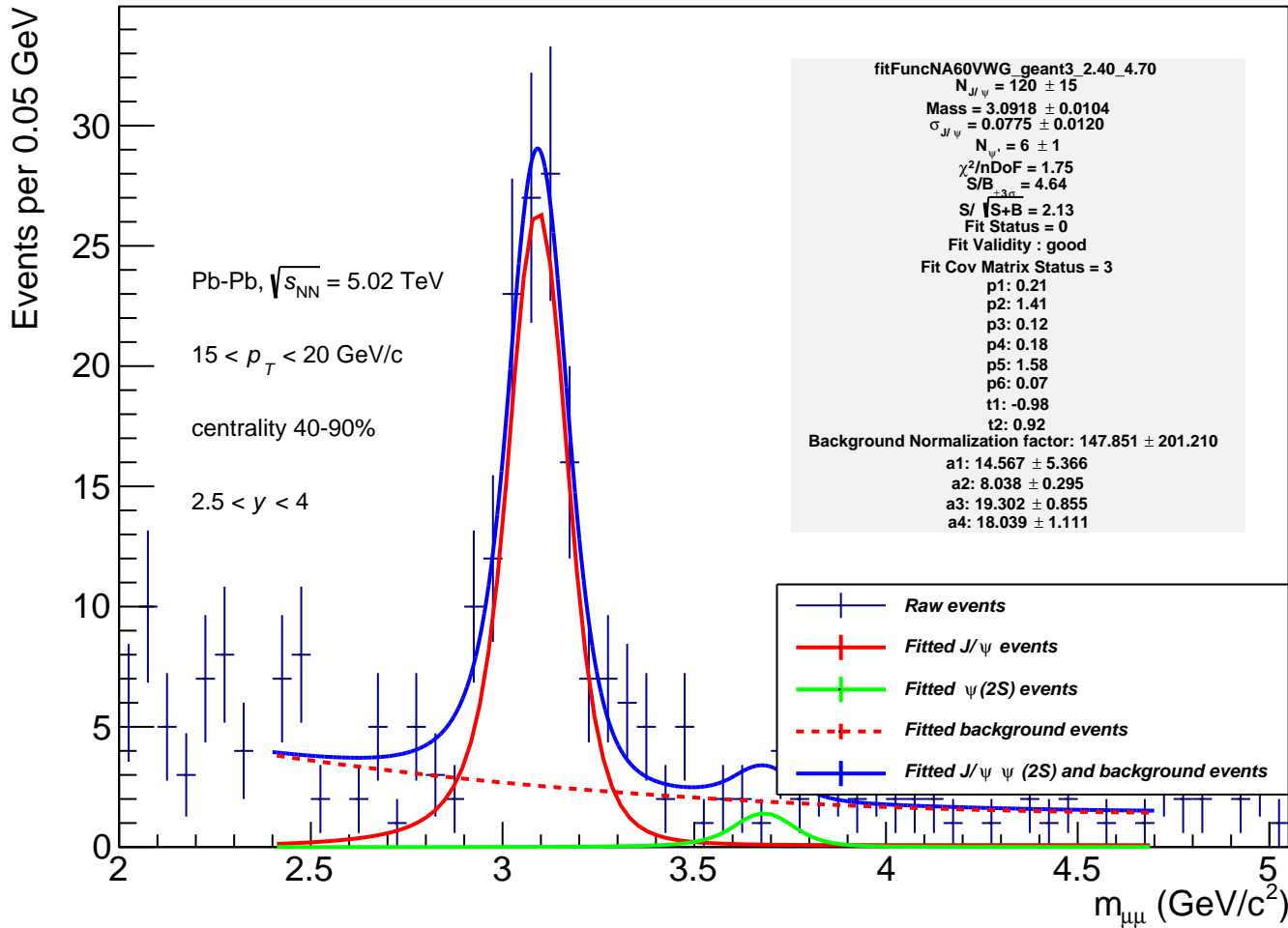
b1: -13.080 ± 1.724 ; b2: 14.481 ± 1.212

b3: -5.333 ± 0.188 ; b4: 0.655 ± 0.028

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$m_{\mu\mu}$ (GeV/c²)





Events per 0.05 GeV

Pb-Pb, $\sqrt{s_{NN}} = 5.02$ TeV

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$2.5 < y < 4$

fitFuncNA60Pol2_geant3_2.20_4.50

$N_{J/\psi} = 119 \pm 16$

Mass = 3.0874 ± 0.0106

$\sigma_{J/\psi} = 0.0759 \pm 0.0120$

$N_{\psi'} = 0 \pm 0$

$\chi^2/nDoF = 1.76$

S/B = 4.57

S/ $\sqrt{S+B}$ = 2.12

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

p1: 0.21

p2: 1.27

p3: 0.07

p4: 0.18

p5: 1.60

p6: 0.07

t1: -1.12

t2: 0.91

Background Normalization factor: 0.190 ± 0.354

a1: 0.905 ± 0.837 ; a2: -0.09451 ± 0.397

b1: -6.489 ± 0.654 ; b2: 6.435 ± 0.267

b3: -2.052 ± 0.098 ; b4: 0.217 ± 0.035

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$m_{\mu\mu}$ (GeV/c²)

Events per 0.05 GeV

Pb-Pb, $\sqrt{s_{NN}} = 5.02$ TeV

$15 < p_T < 20$ GeV/c

centrality 40-90%

$2.5 < y < 4$

fitFuncNA60Pol2_geant3_2.40_4.70

$N_{J/\psi} = 110 \pm 19$

Mass = 3.0861 ± 0.0109

$\sigma_{J/\psi} = 0.0721 \pm 0.0132$

$N_{\psi'} = 0 \pm 0$

$\chi^2/nDoF = 1.24$

S/B = 3.27

$S/\sqrt{S+B} = 1.97$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

p1: 0.21

p2: 1.41

p3: 0.12

p4: 0.18

p5: 1.58

p6: 0.07

t1: -0.98

t2: 0.92

Background Normalization factor: 18.083 ± 3.799

a1: -0.752 ± 0.013 ; a2: 0.14232 ± 0.005

b1: -20.563 ± 0.109 ; b2: 22.903 ± 0.050

b3: -8.502 ± 0.021 ; b4: 1.055 ± 0.007

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$m_{\mu\mu}$ (GeV/c²)

Events per 0.025 GeV

Pb-Pb, $\sqrt{s_{NN}} = 5.02$ TeV

$15 < p_T < 20$ GeV/c

centrality 40-90%

$2.5 < y < 4$

fitFuncCB2Exp_pp13_2.20_4.50

$N_{J/\psi} = 138 \pm 13$

Mass = 3.0968 ± 0.0108

$\sigma_{J/\psi} = 0.0974 \pm 0.0440$

$N_{\psi'} = 14 \pm 5$

$\chi^2/nDoF = 2.11$

$S/B_{\pm 3\sigma} = -14.63$

$S/\sqrt{S+B} = 2.64$

Fit Status = 0

Fit Validity : good

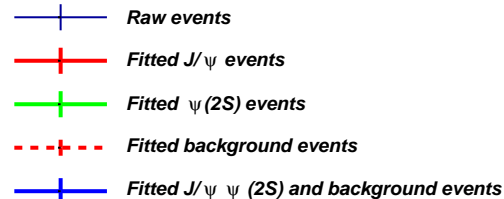
Fit Cov Matrix Status = 3

t1: 0.97

p1: 6.97

t2: 1.86

p1: 14.99



2

2.5

3

3.5

4

4.5

5

$m_{\mu\mu}$ (GeV/c²)

Events per 0.025 GeV

Pb-Pb, $\sqrt{s_{NN}} = 5.02$ TeV

$15 < p_T < 20$ GeV/c

centrality 40-90%

$2.5 < y < 4$

fitFuncCB2Exp_geant3_2.20_4.50

$N_{J/\psi} = 139 \pm 13$

Mass = 3.0972 ± 0.0101

$\sigma_{J/\psi} = 0.0900 \pm 0.0343$

$N_{\psi'} = 13 \pm 4$

$\chi^2/nDoF = 2.18$

$S/B_{\pm 3\sigma} = -13.93$

$S/\sqrt{S+B} = 2.62$

Fit Status = 0

Fit Validity : good

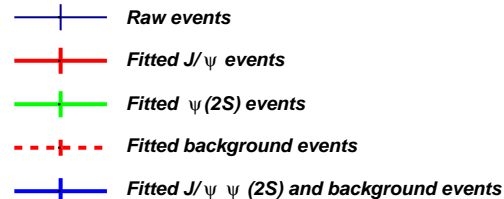
Fit Cov Matrix Status = 3

t1: 0.97

p1: 3.98

t2: 2.30

p1: 3.03



$m_{\mu\mu}$ (GeV/c²)

Events per 0.025 GeV

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$2.5 < y < 4$

fitFuncCB2Exp_pp13_2.40_4.70

$N_{J/\psi} = 138 \pm 13$

Mass = 3.0973 ± 0.0109

$\sigma_{J/\psi} = 0.0978 \pm 0.0483$

$N_{\psi'} = 14 \pm 5$

$\chi^2/nDoF = 1.80$

$S/B_{\pm 3\sigma} = -14.24$

$S/\sqrt{S+B} = 2.64$

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 $\psi(2S)$ events*
- - -+ - *Fitted background events*
—+— *Fitted J/ψ $\psi(2S)$ and background events*

2

2.5

3

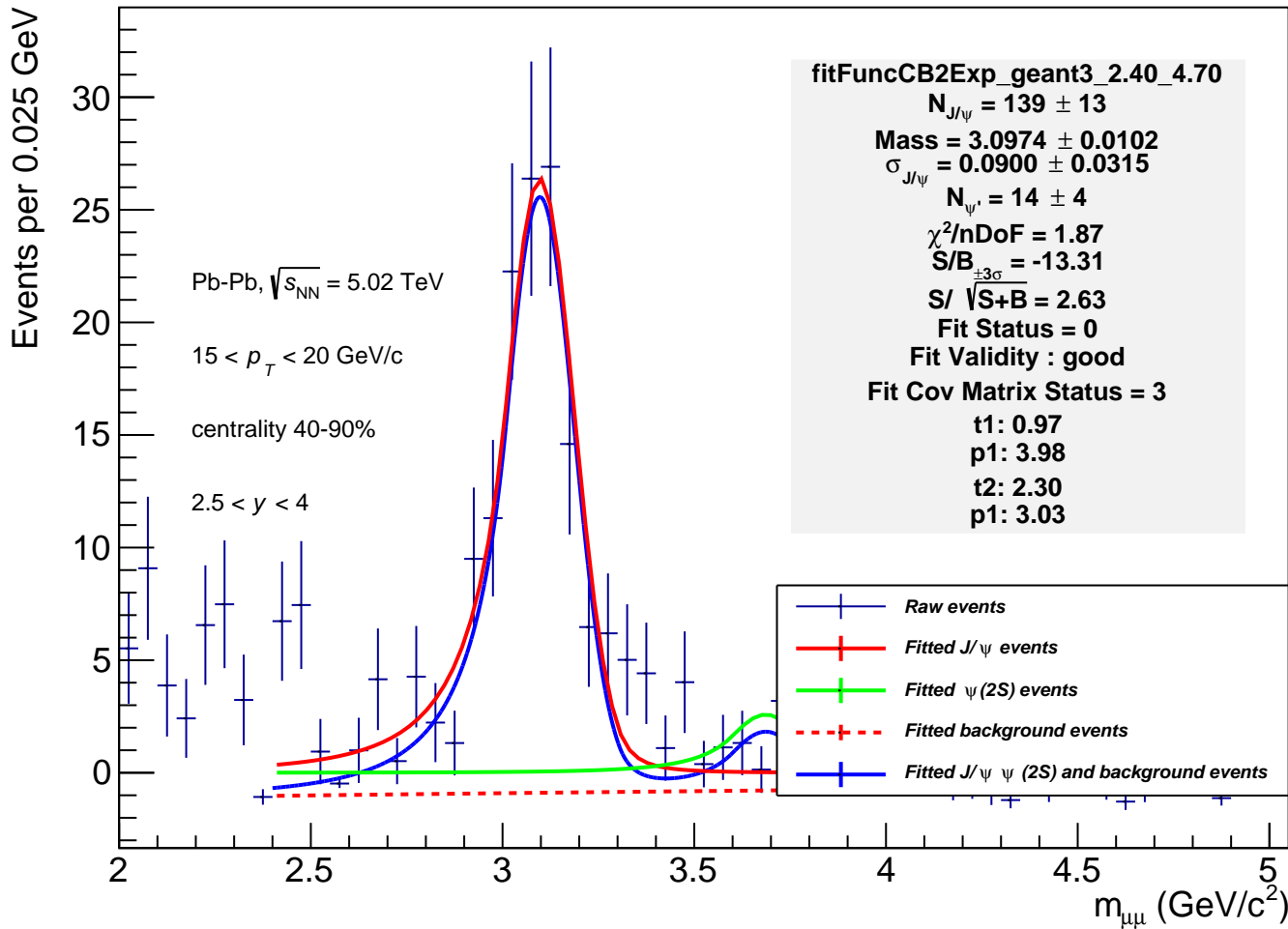
3.5

4

4.5

5

$m_{\mu\mu}$ (GeV/c²)



Events per 0.025 GeV

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$15 < p_T < 20$ GeV/c

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$2.5 < y < 4$

fitFuncNA60Exp_geant3_2.20_4.50

$N_{J/\psi} = 145 \pm 10$

Mass = 3.0924 ± 0.0101

$\sigma_{J/\psi} = 0.0993 \pm 0.0423$

$N_{\psi'} = 13 \pm 4$

$\chi^2/nDoF = 1.99$

$S/B = -14.79$

$S/\sqrt{S+B} = 2.69$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

p1: 0.21

p2: 1.27

p3: 0.07






p4: 0.18

p5: 1.60

p6: 0.07

t1: -1.12

t2: 0.91

-  Raw events
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$m_{\mu\mu}$ (GeV/c²)

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$2.5 < y < 4$

fitFuncNA60Exp_geant3_2.40_4.70

$N_{J/\psi} = 145 \pm 7$

Mass = 3.0926 ± 0.0100

$\sigma_{J/\psi} = 0.1000 \pm 0.0427$

$N_{\psi'} = 14 \pm 4$

$\chi^2/nDoF = 1.62$

$S/B = -14.66$

$S/\sqrt{S+B} = 2.69$

Fit Status = 0

Fit Validity : good

Fit Cov Matrix Status = 3

p1: 0.21

p2: 1.27

p3: 0.07

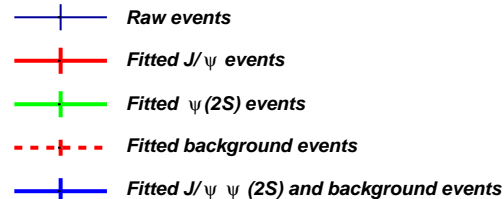
p4: 0.18

p5: 1.60

p6: 0.07

t1: -1.12

t2: 0.91



$m_{\mu\mu}$ (GeV/c²)