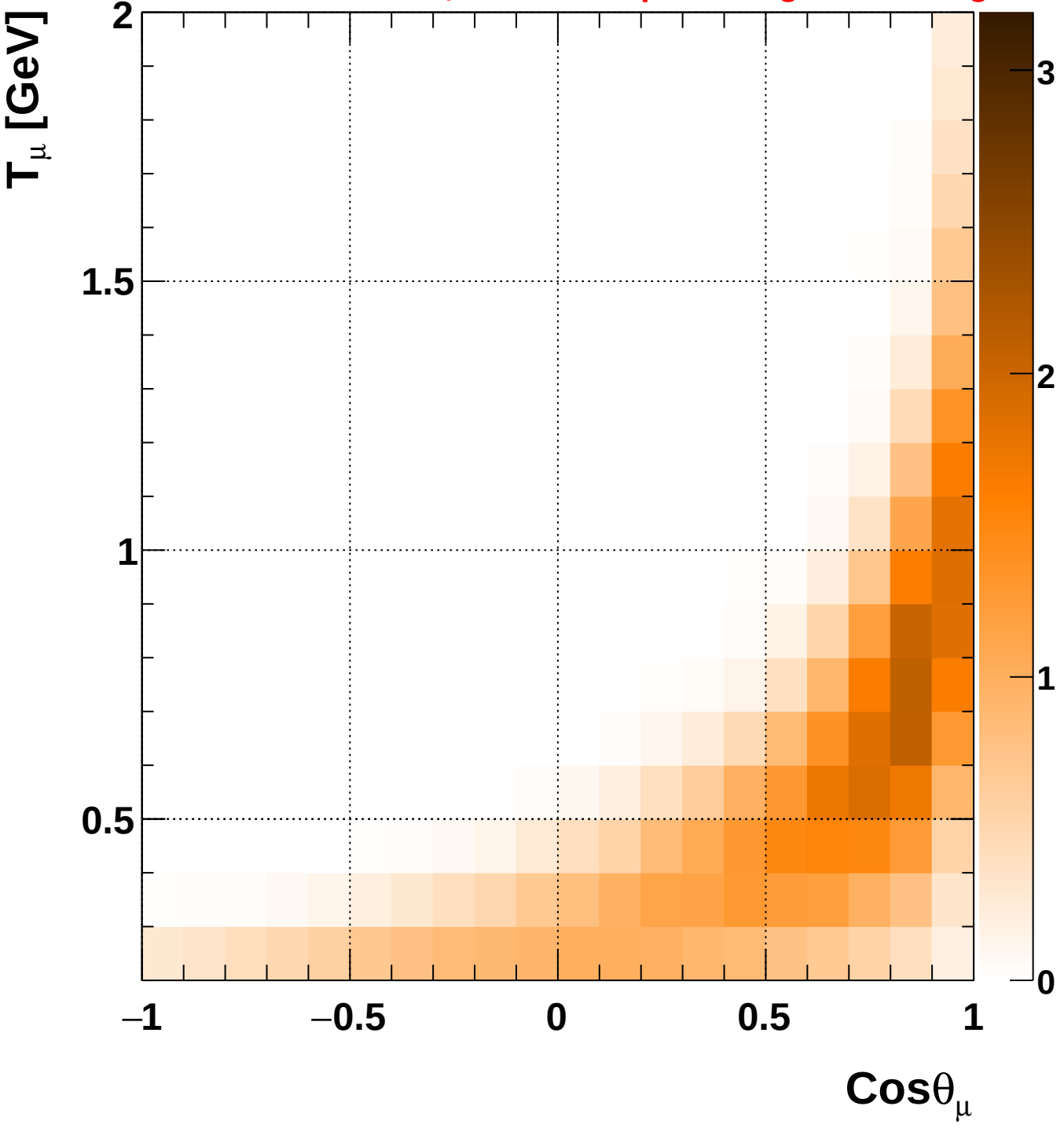
**GENIE comparisons with MiniBooNE CC 0π dataset**

**Dataset:**
**miniboone_nuccqe_2010**

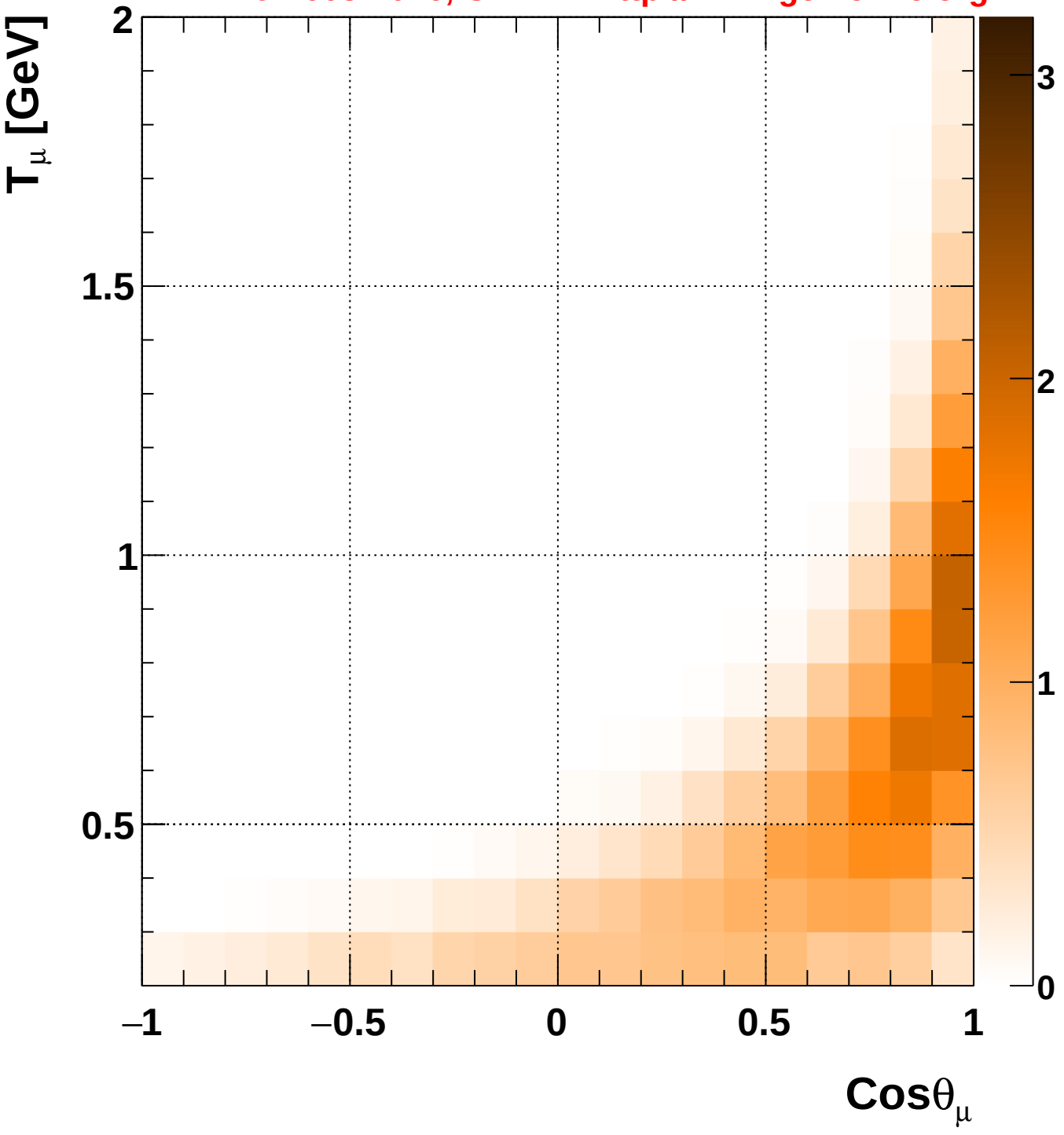
**Models:**
**trunk/G00_00a**
**trunk/G00_00b**
**trunk/G16_01a**
**trunk/G16_02b**

**2016/11/22 12:29:32**




$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ $\mathrm{cm}^2$/GeV/n]

Data: miniboone_nuccqe_2010




$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]

Pred: trunk:G00_00a:miniboone_fhc

**miniboone_nuccqe_2010**

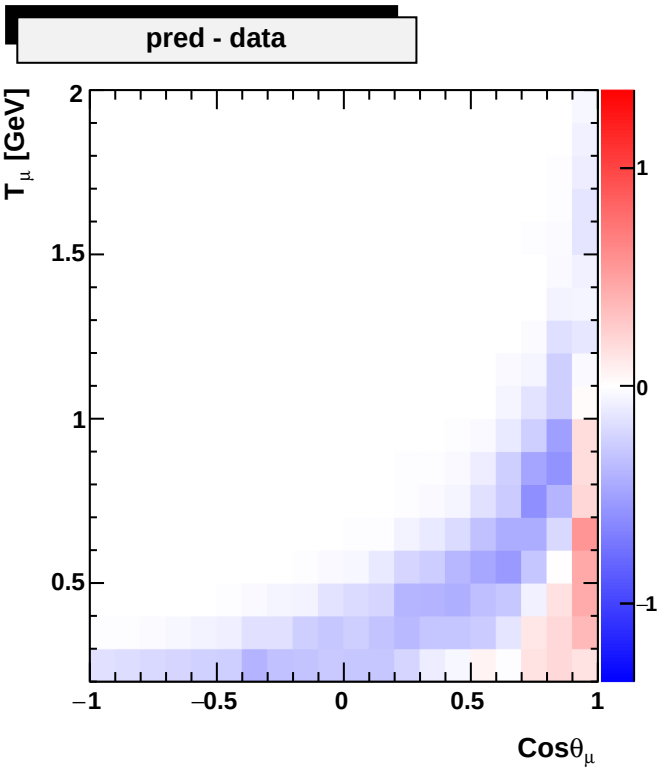
**VS**

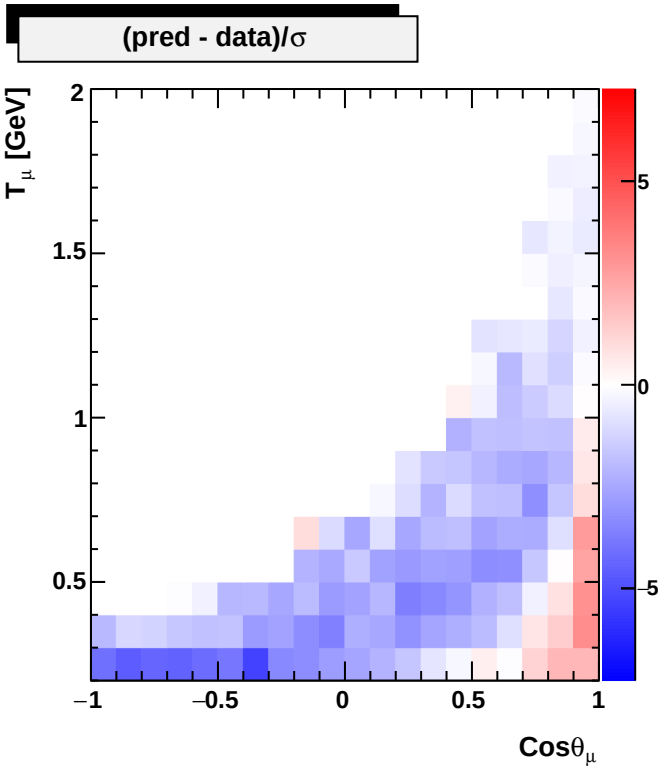
**trunk:G00_00a:miniboone_fhc**

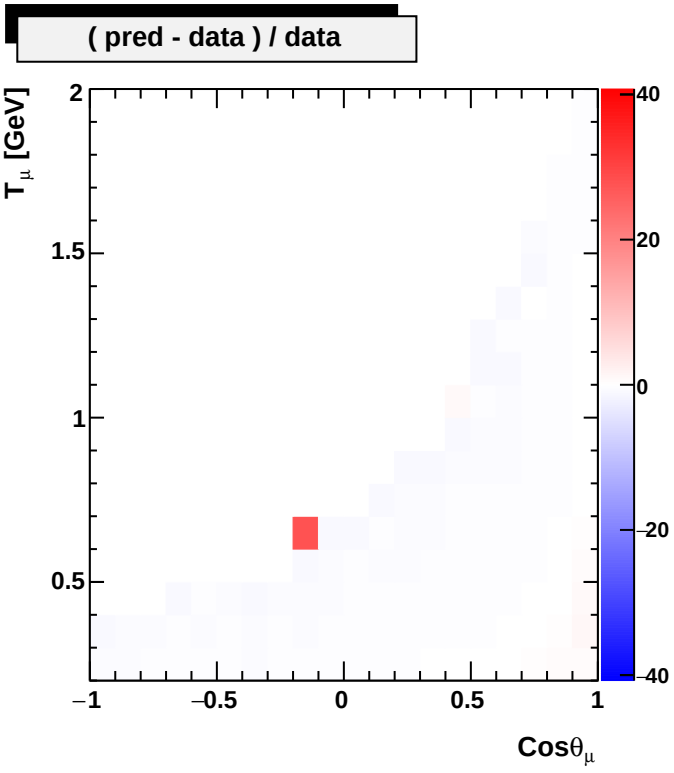
$\partial^2\sigma/\partial\text{Cos}\theta_\mu/\partial T_\mu$

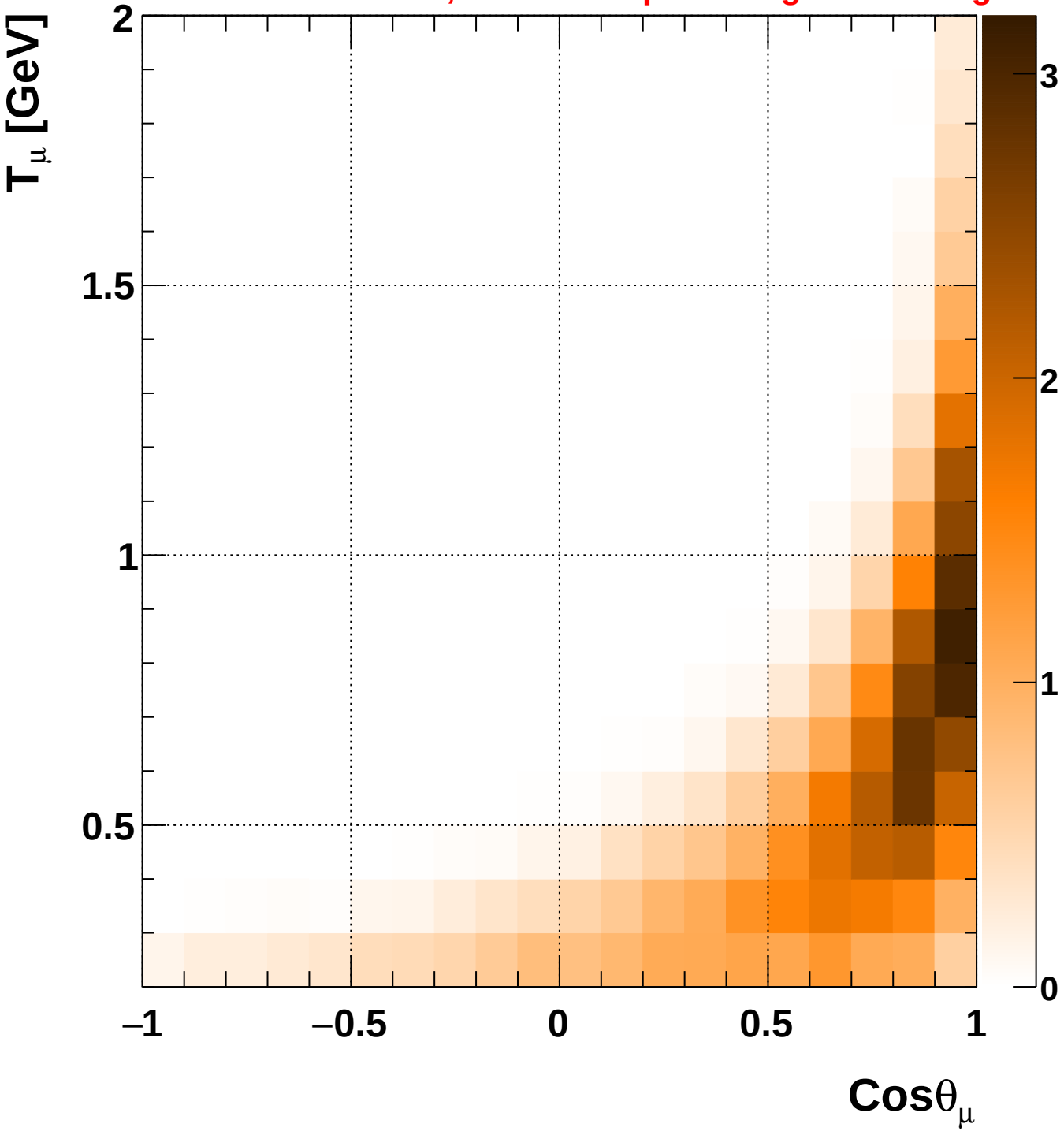
**[$10^{-38}$ cm$^2$/GeV/n]**

$\chi^2$ **= 598.568/137 DoF**






$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]

Pred: trunk:G00_00b:miniboone_fhc

**miniboone_nuccqe_2010**

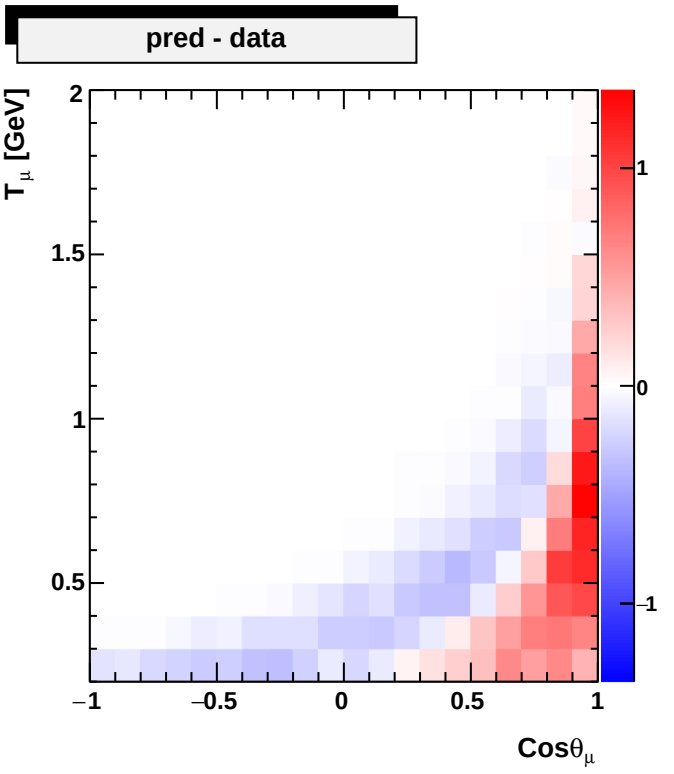
**VS**

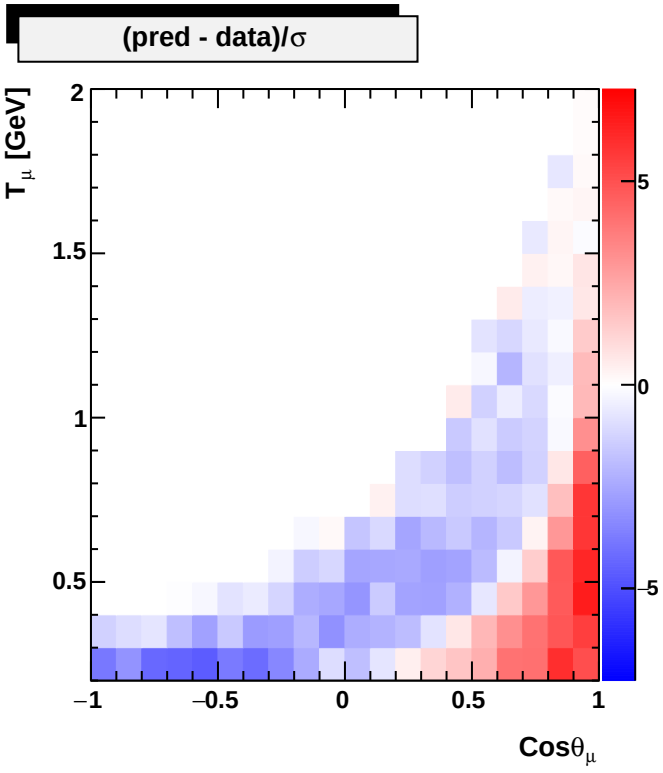
**trunk:G00_00b:miniboone_fhc**

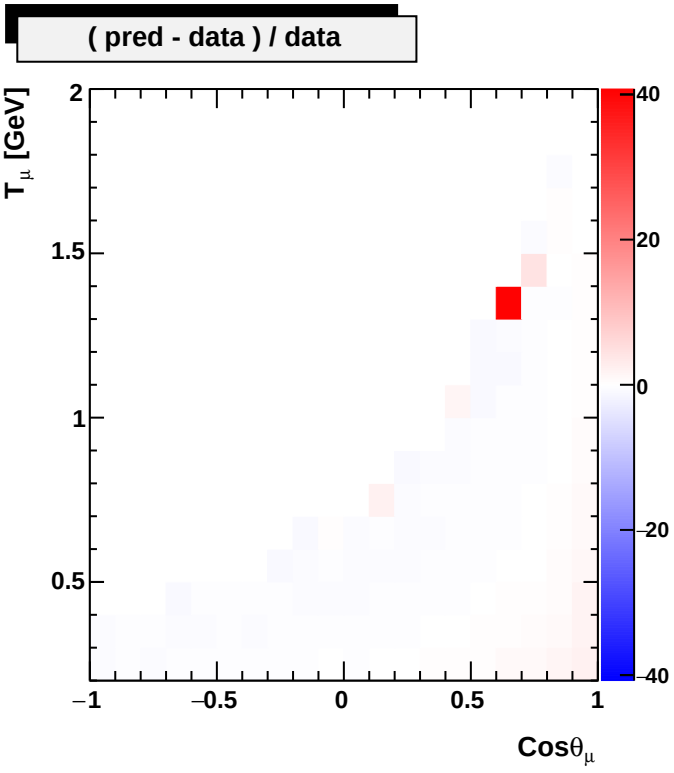
$\partial^2\sigma/\partial\text{Cos}\theta_\mu/\partial T_\mu$

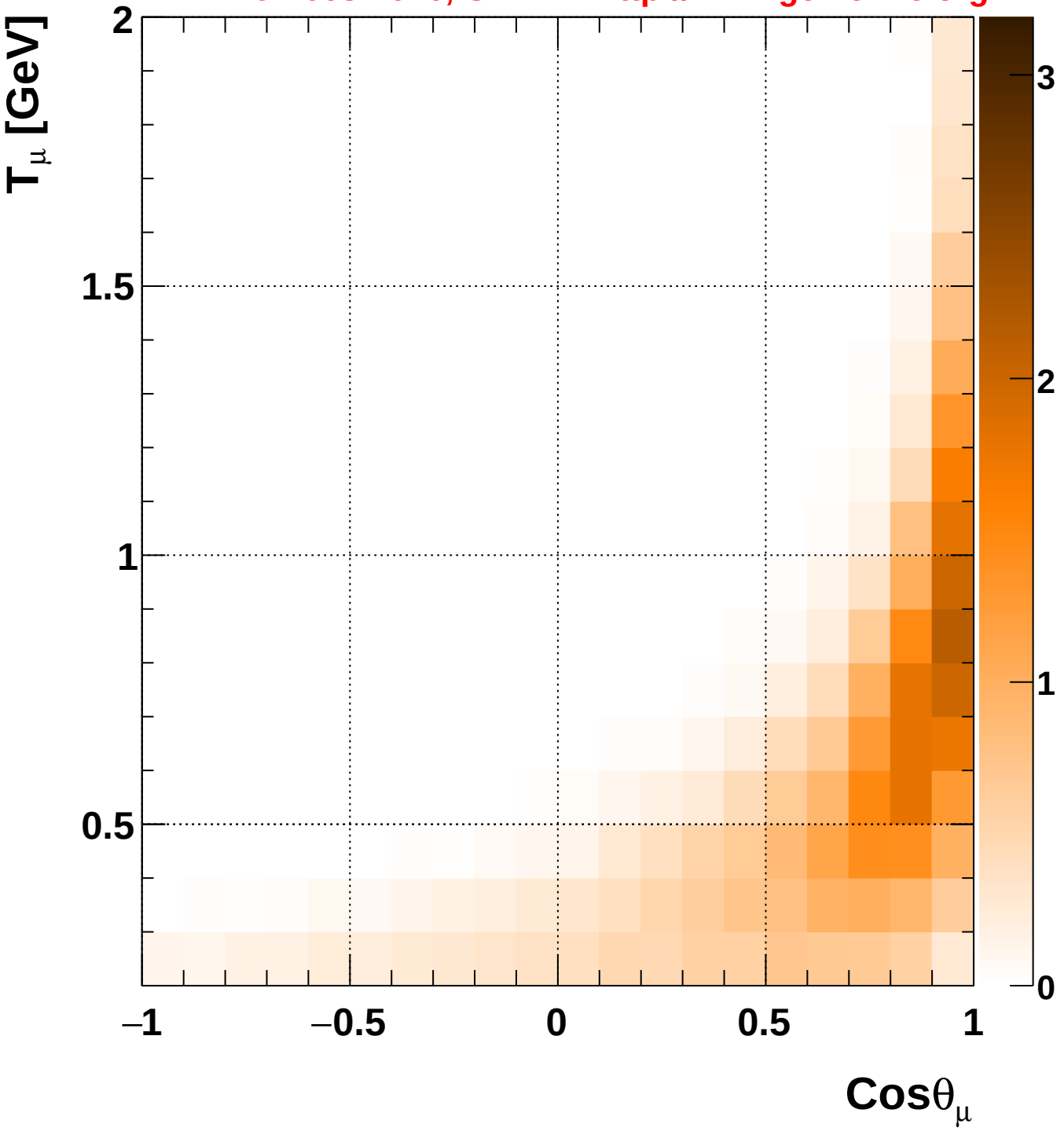
**[$10^{-38}$ cm$^2$/GeV/n]**

$\chi^2$ **= 794.689/137 DoF**






$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]

Pred: trunk:G16_01a:miniboone_fhc

**miniboone_nuccqe_2010**

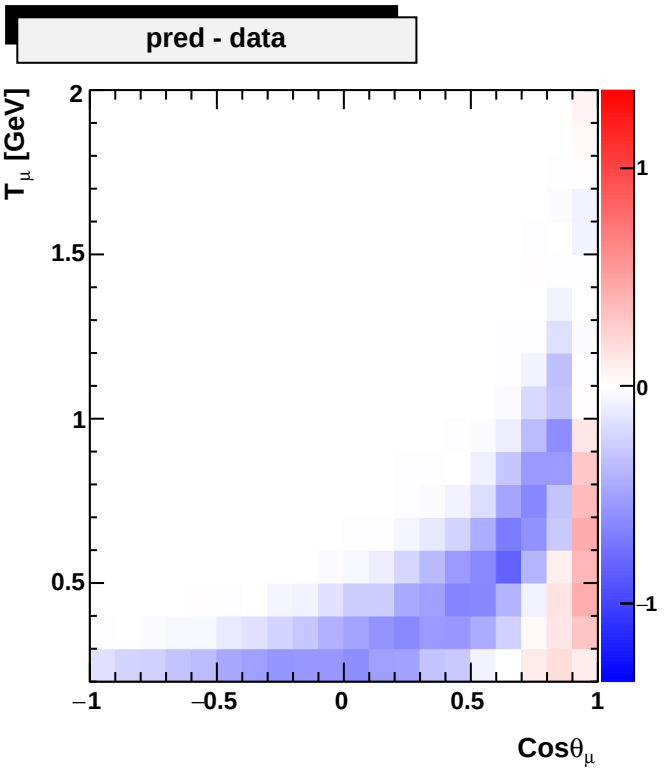
**VS**

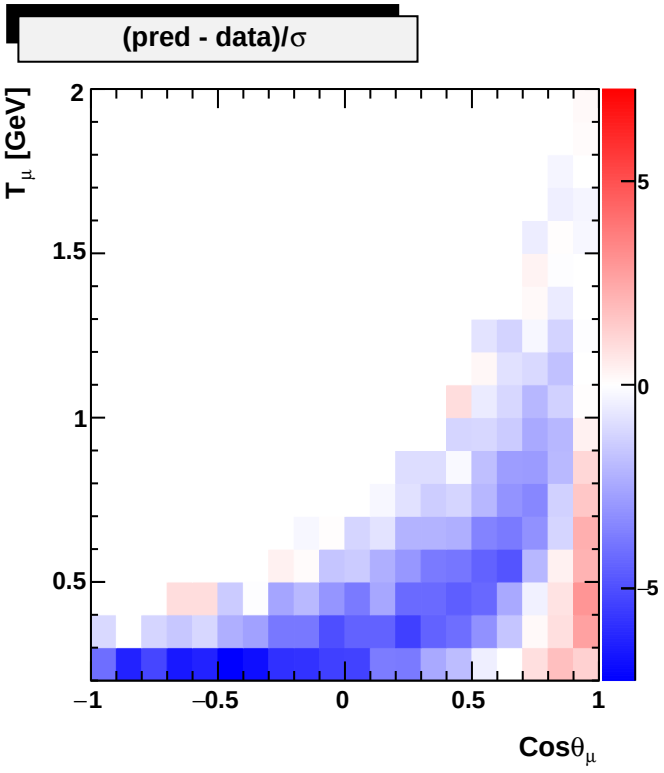
**trunk:G16_01a:miniboone_fhc**

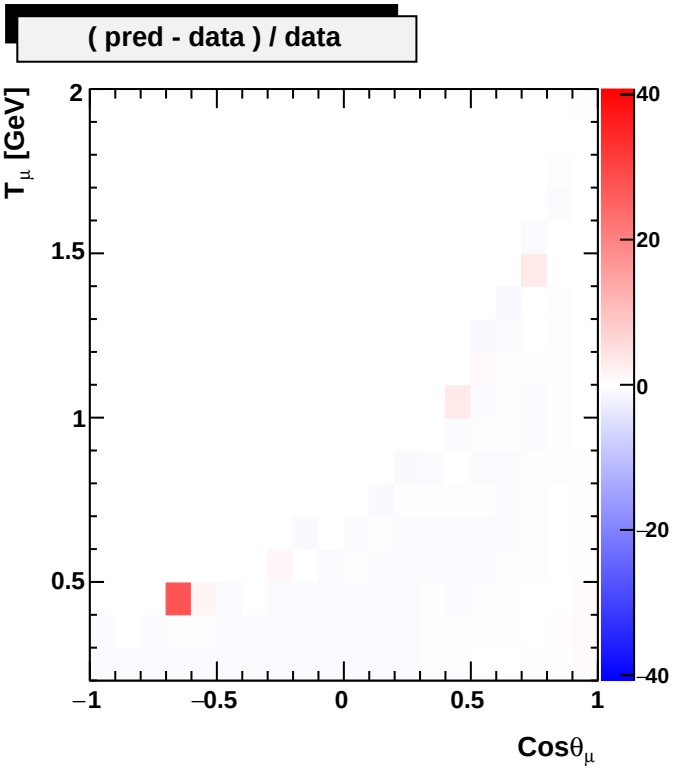
$\partial^2\sigma/\partial\text{Cos}\theta_\mu/\partial T_\mu$

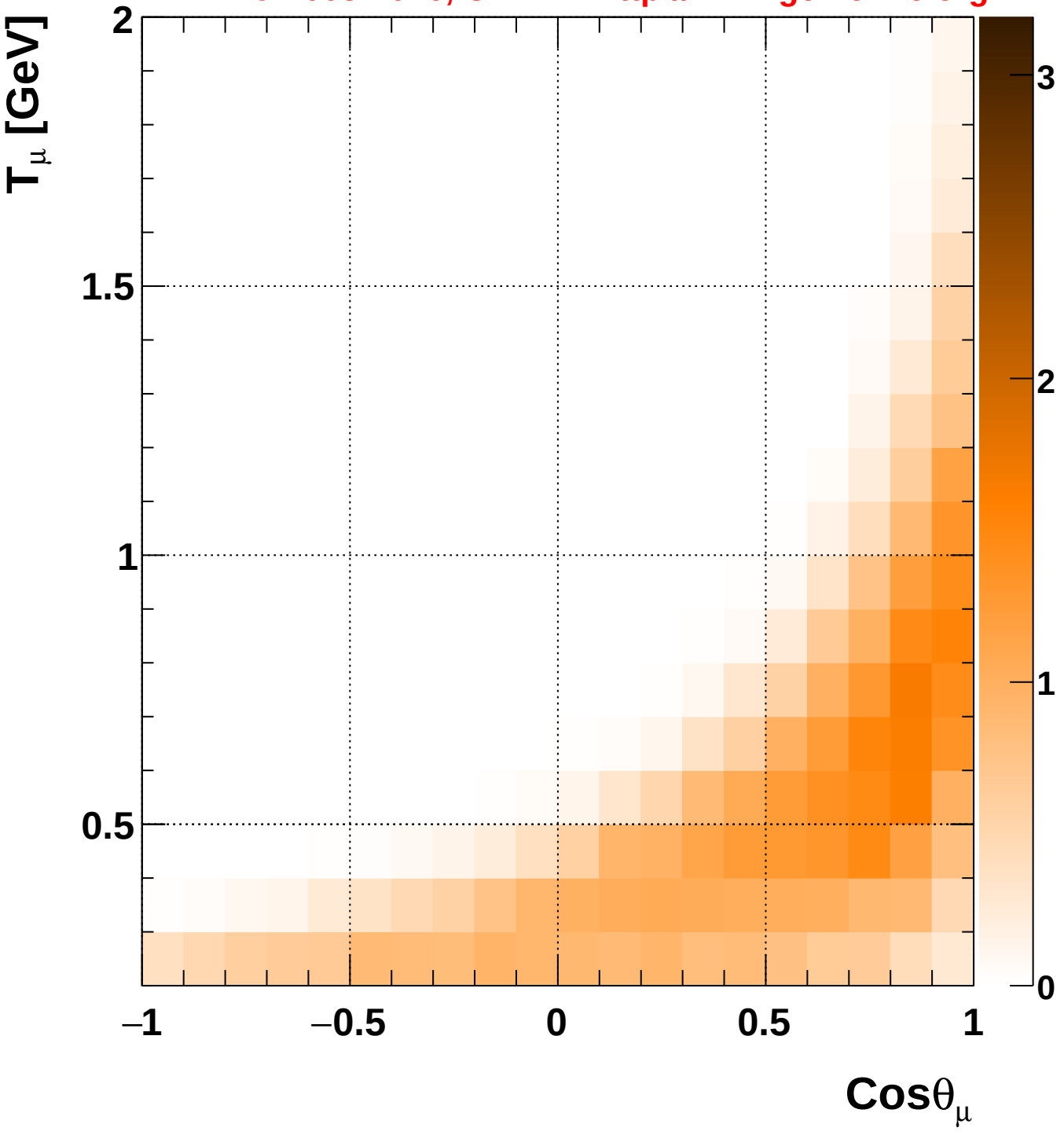
**[$10^{-38}$ cm$^2$/GeV/n]**

$\chi^2$ **= 1023.42/137 DoF**






$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]

Pred: trunk:G16_02b:miniboone_fhc

**miniboone_nuccqe_2010**

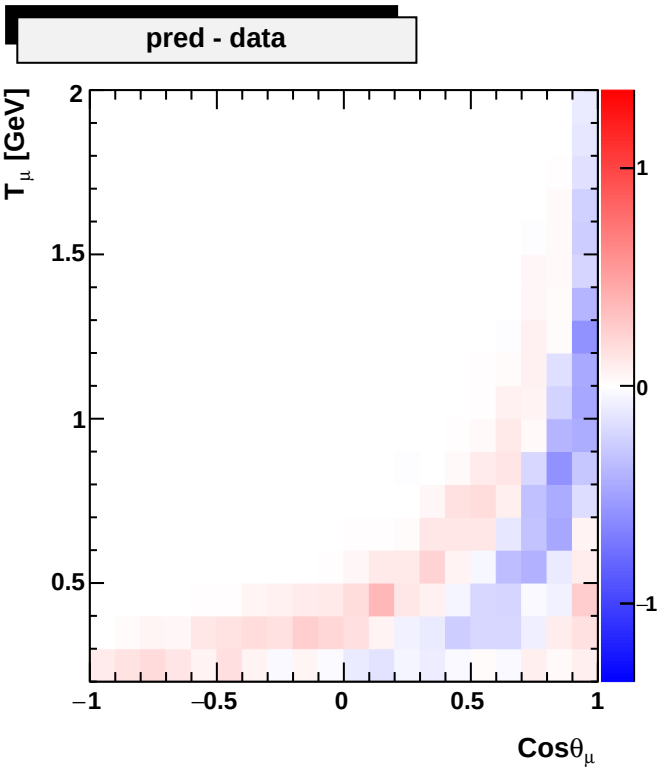
**VS**

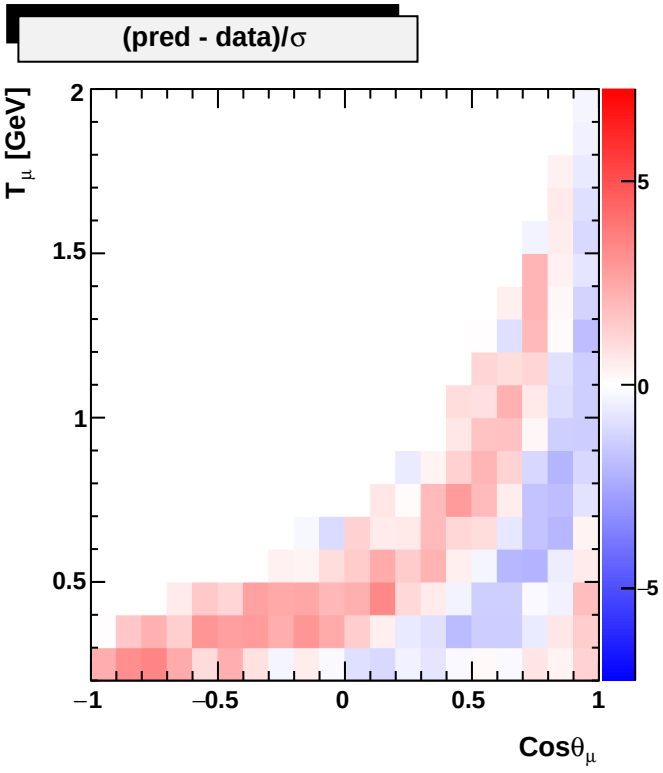
**trunk:G16_02b:miniboone_fhc**

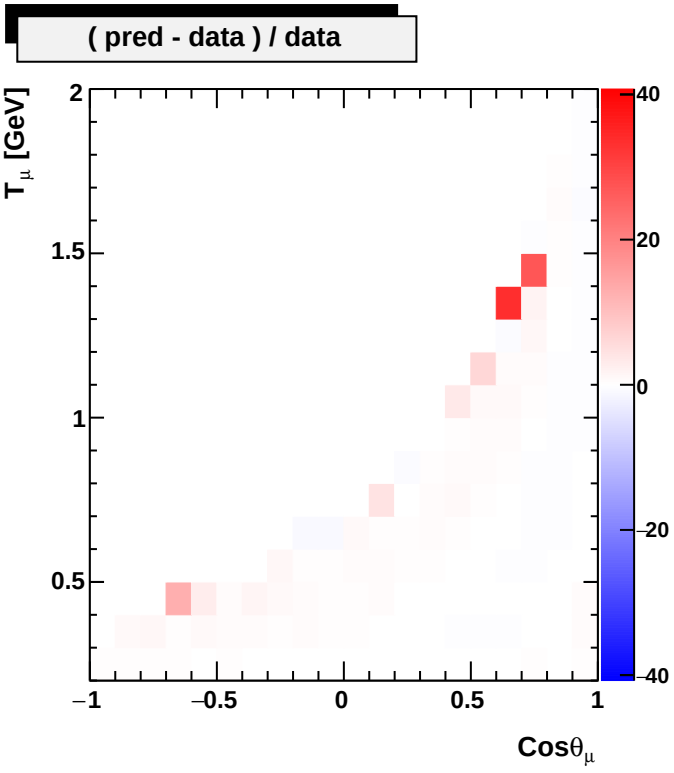
$\partial^2\sigma/\partial\text{Cos}\theta_\mu/\partial T_\mu$

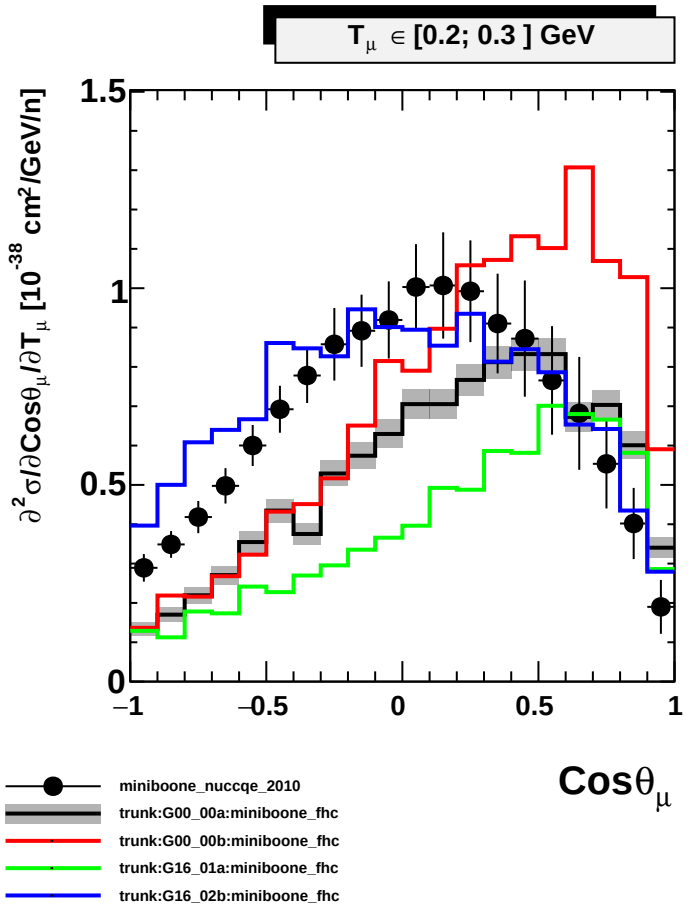
**[$10^{-38}$ cm$^2$/GeV/n]**

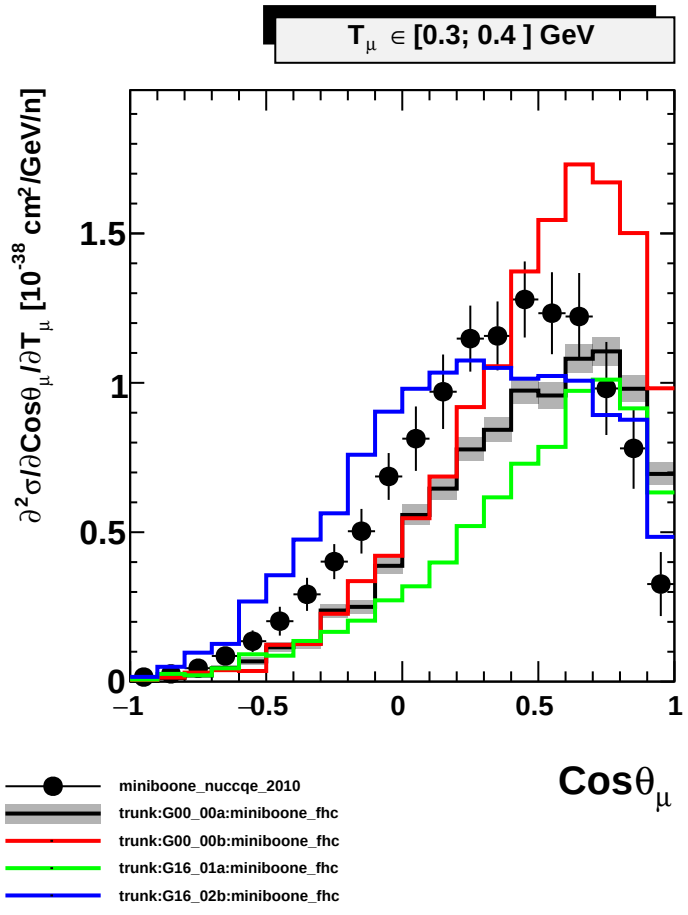
$\chi^2$ **= 298.857/137 DoF**

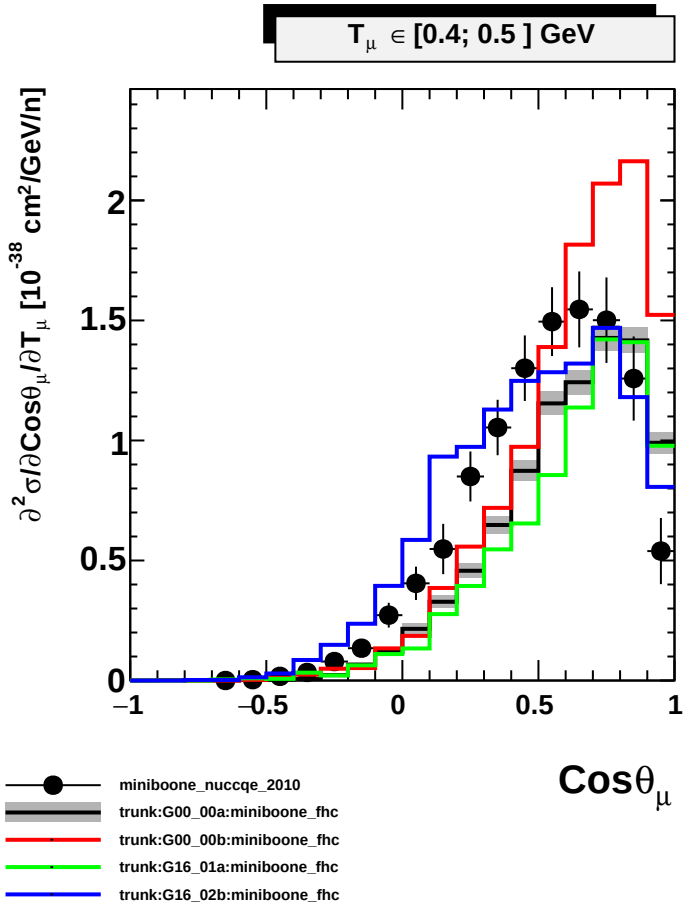


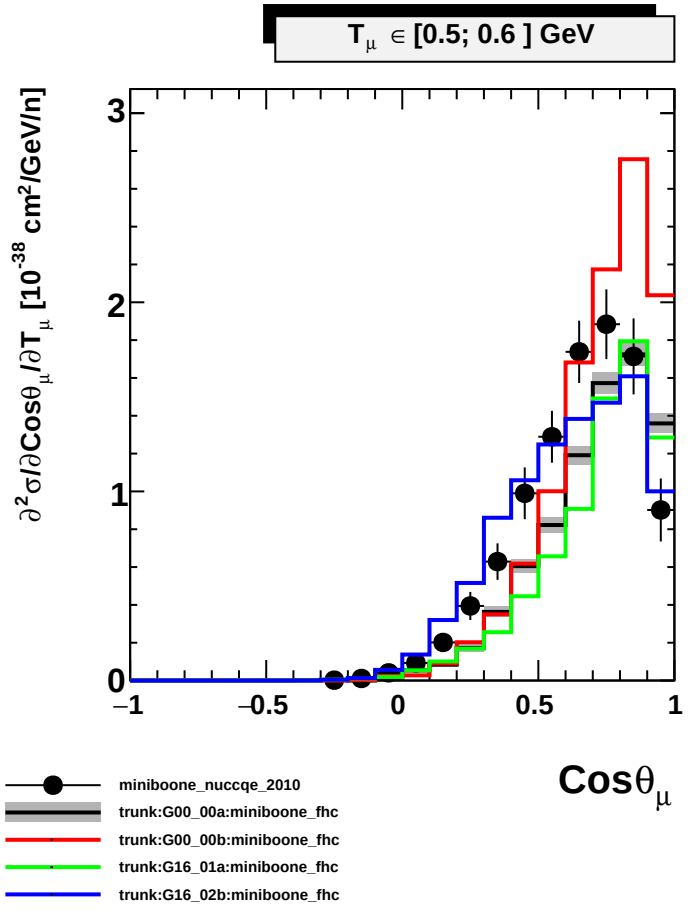



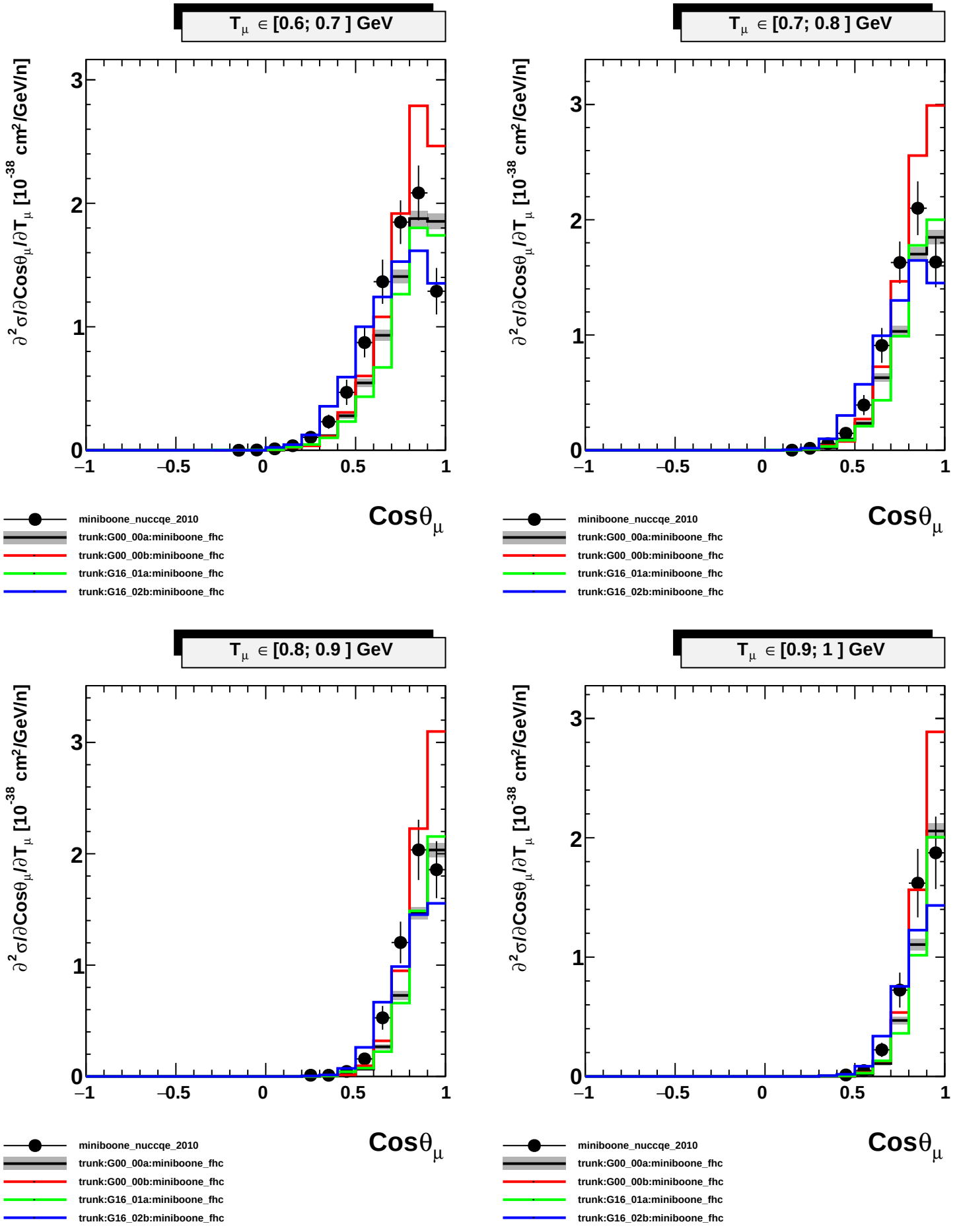



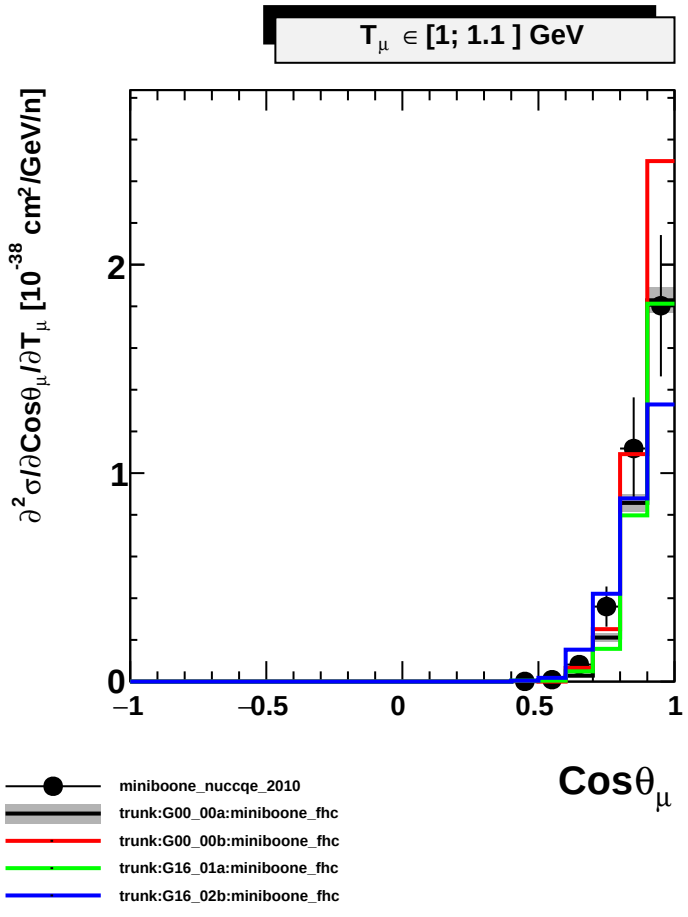

$T_\mu \in [0.2; 0.3]$ GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc

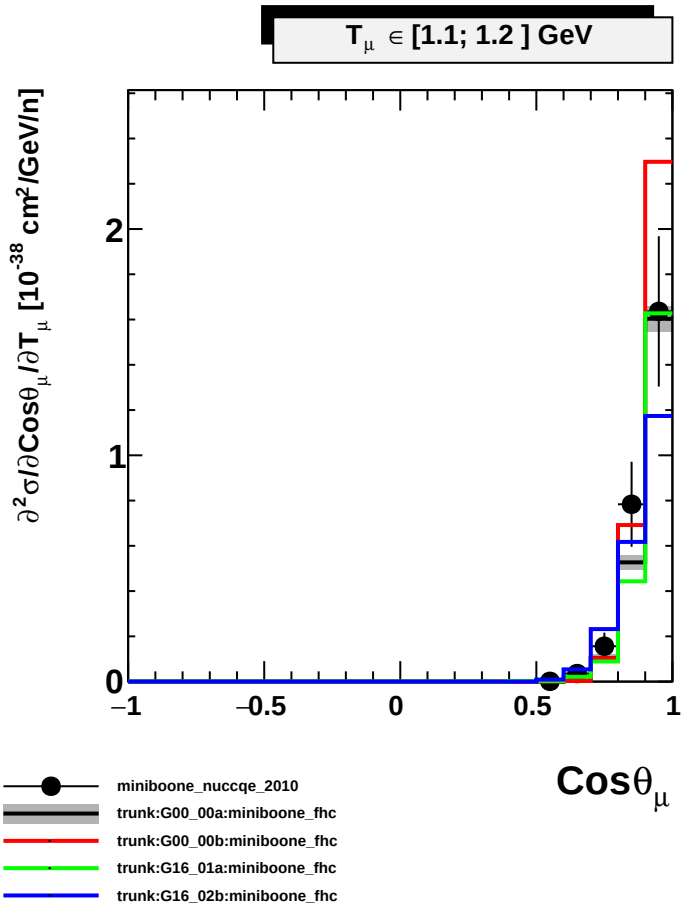

$T_\mu \in [0.3; 0.4]$ GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in [0.4; 0.5]$ GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in [0.5; 0.6]$ GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in [0.6; 0.7]$ GeV
$T_\mu \in [0.7; 0.8]$ GeV
$T_\mu \in [0.8; 0.9]$ GeV
$T_\mu \in [0.9; 1]$ GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1; 1.1 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.1; 1.2 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
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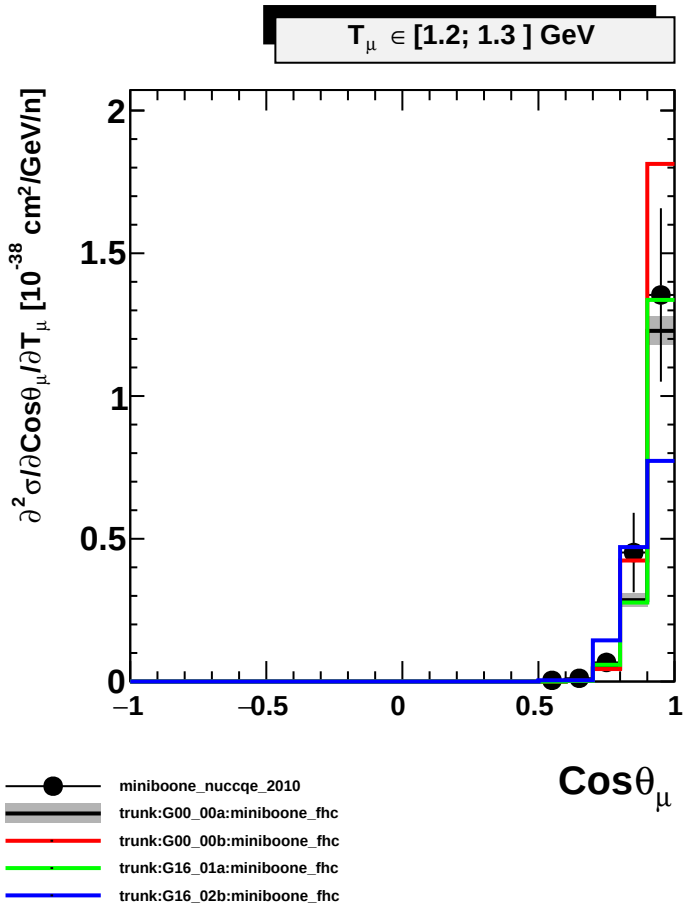
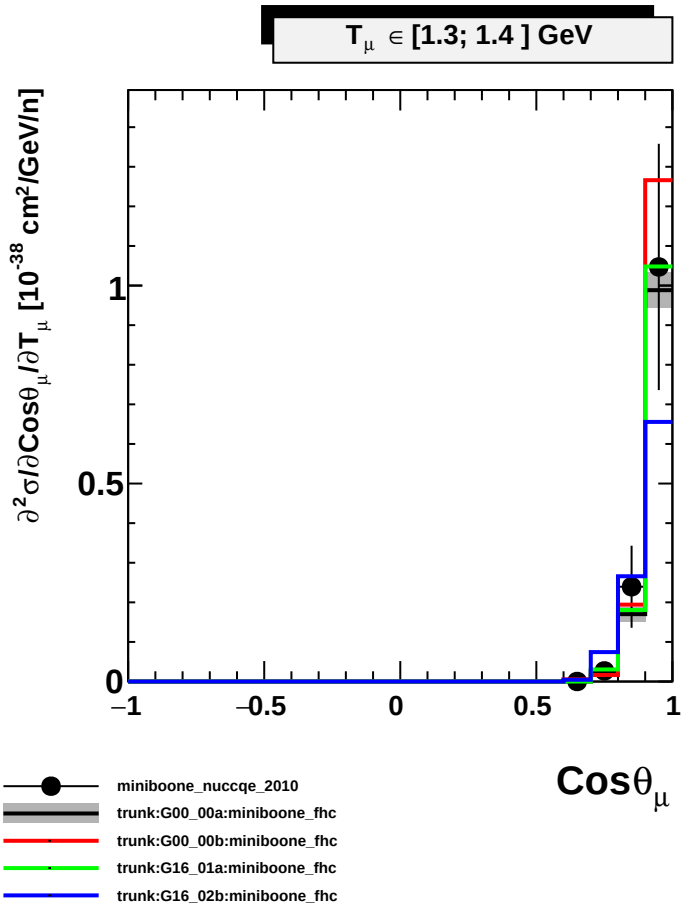
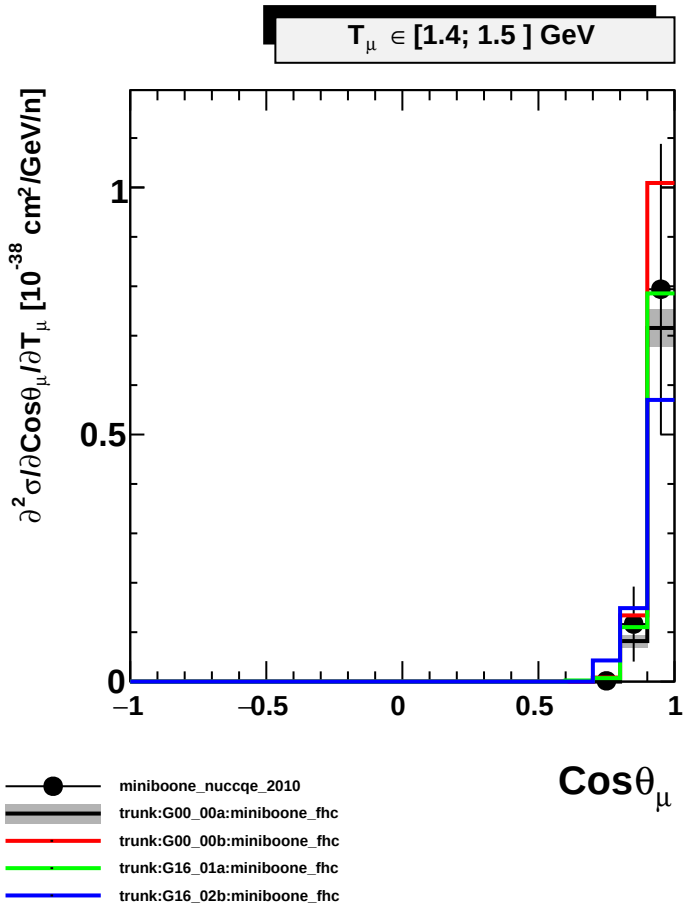

$T_\mu \in$ [1.2; 1.3 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.3; 1.4 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.4; 1.5 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
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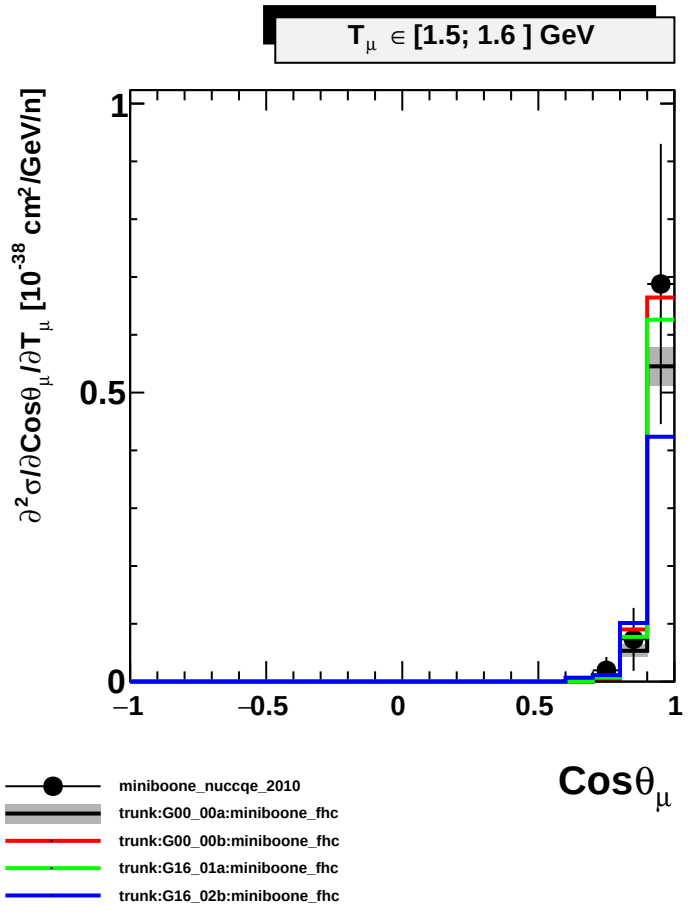
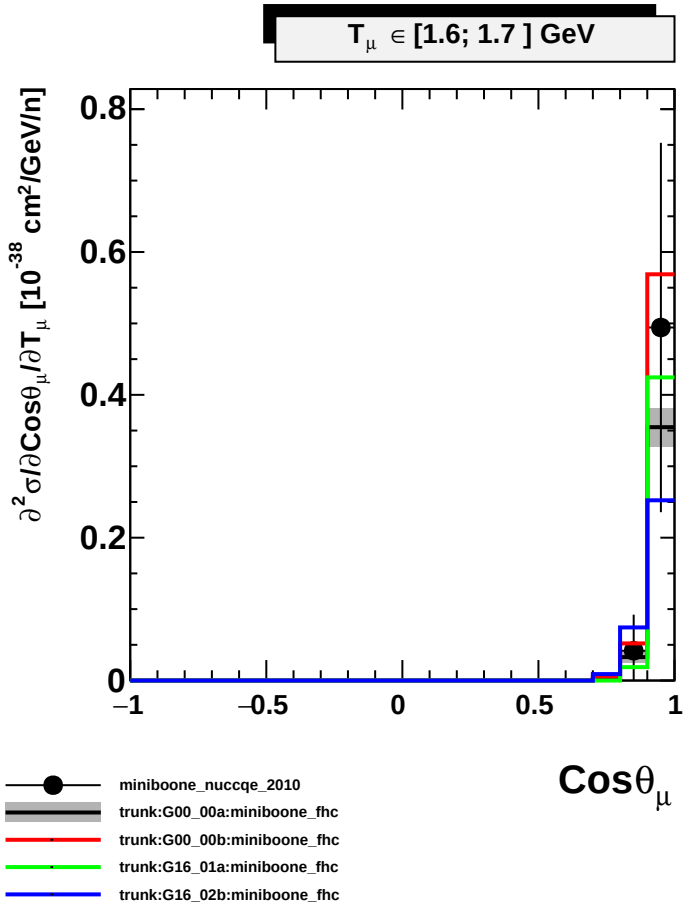
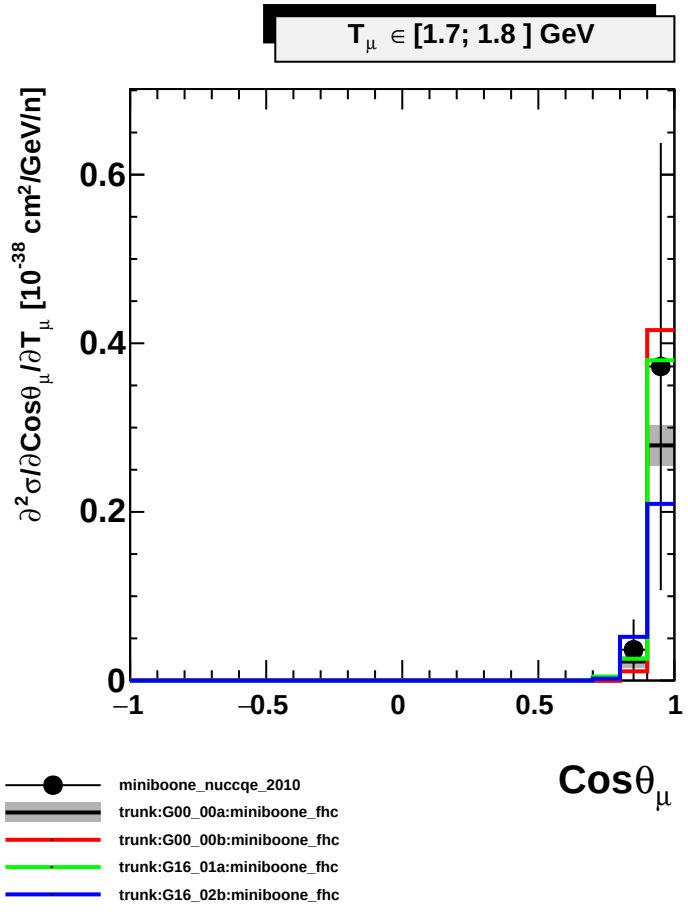
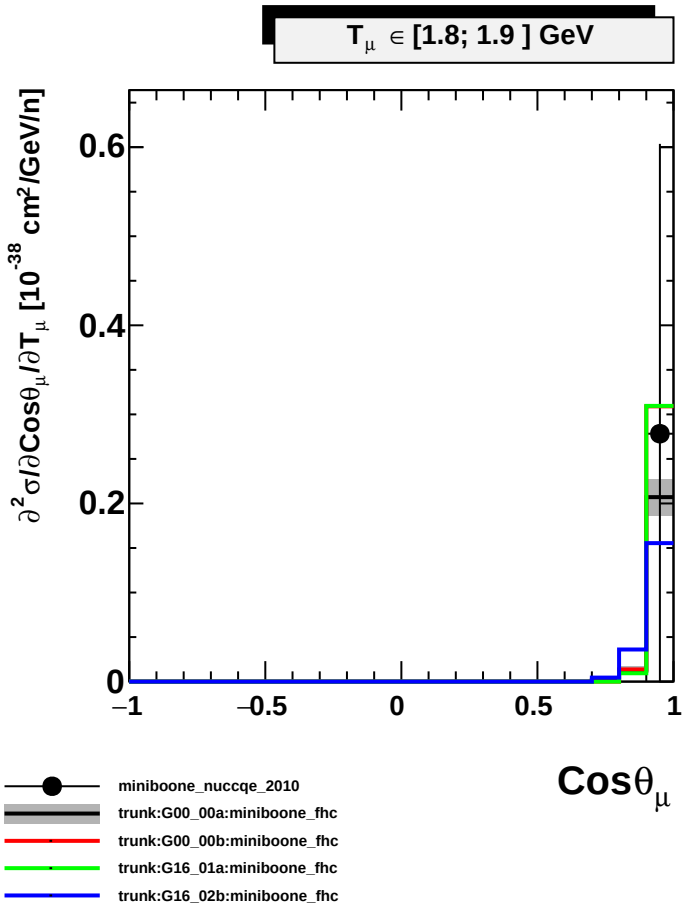
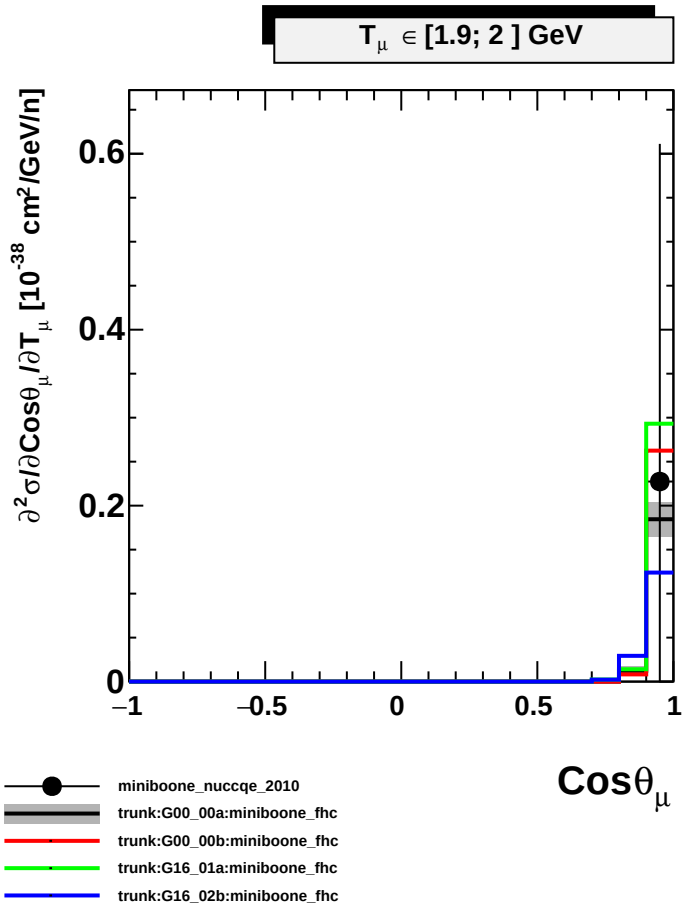
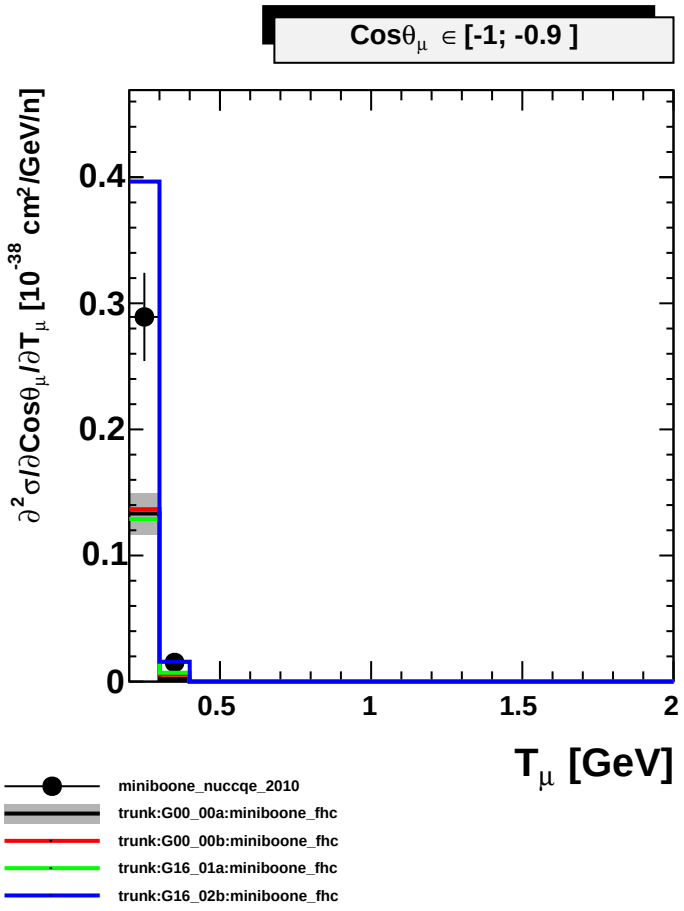

$T_\mu \in$ [1.5; 1.6 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.6; 1.7 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.7; 1.8 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.8; 1.9 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
0.6
0.4
0.2
0
−1
−0.5
0
0.5
1
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


$T_\mu \in$ [1.9; 2 ] GeV
$\partial^2\sigma/\partial\mathrm{Cos}\theta_\mu/\partial T_\mu$ [$10^{-38}$ cm$^2$/GeV/n]
0.6
0.4
0.2
0
−1
−0.5
0
0.5
1
$\mathrm{Cos}\theta_\mu$
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
trunk:G00_00b:miniboone_fhc
trunk:G16_01a:miniboone_fhc
trunk:G16_02b:miniboone_fhc


Cosθμ ∈ [-1; -0.9 ]
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Tμ [GeV]
miniboone_nuccqe_2010
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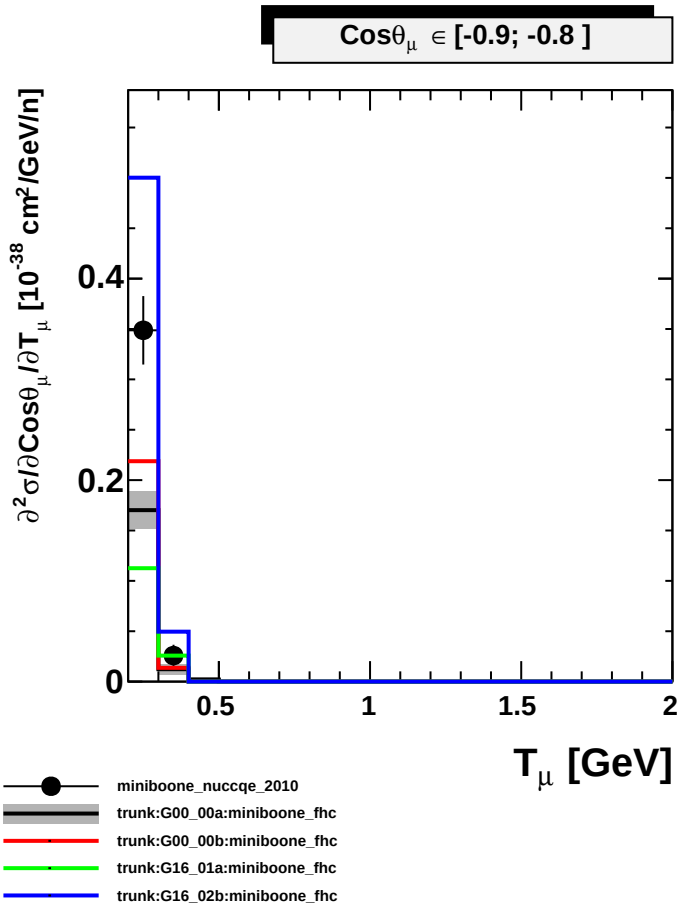
Cosθμ ∈ [-0.9; -0.8 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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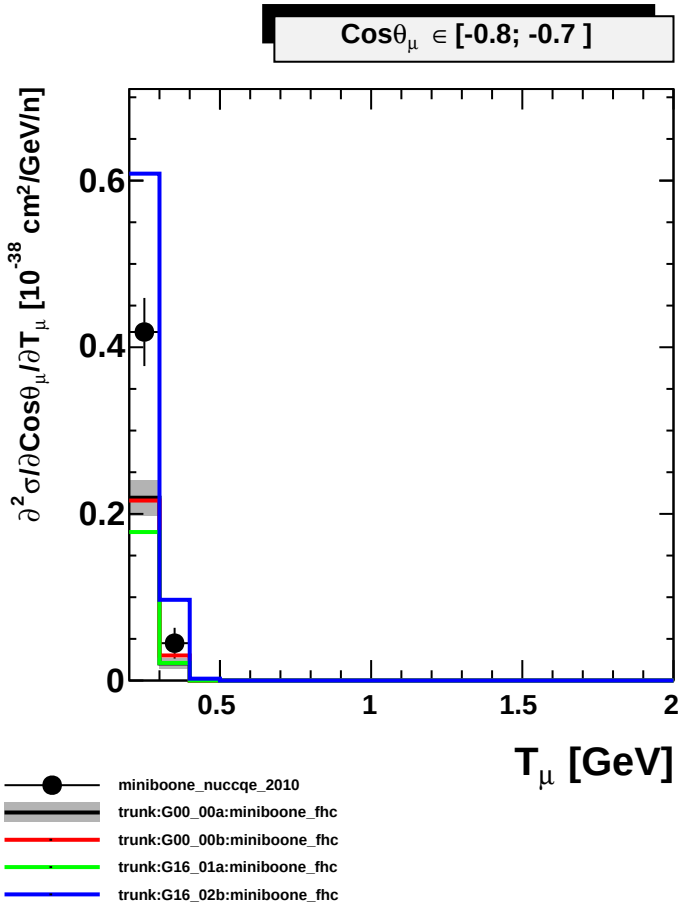
Cosθμ ∈ [-0.8; -0.7 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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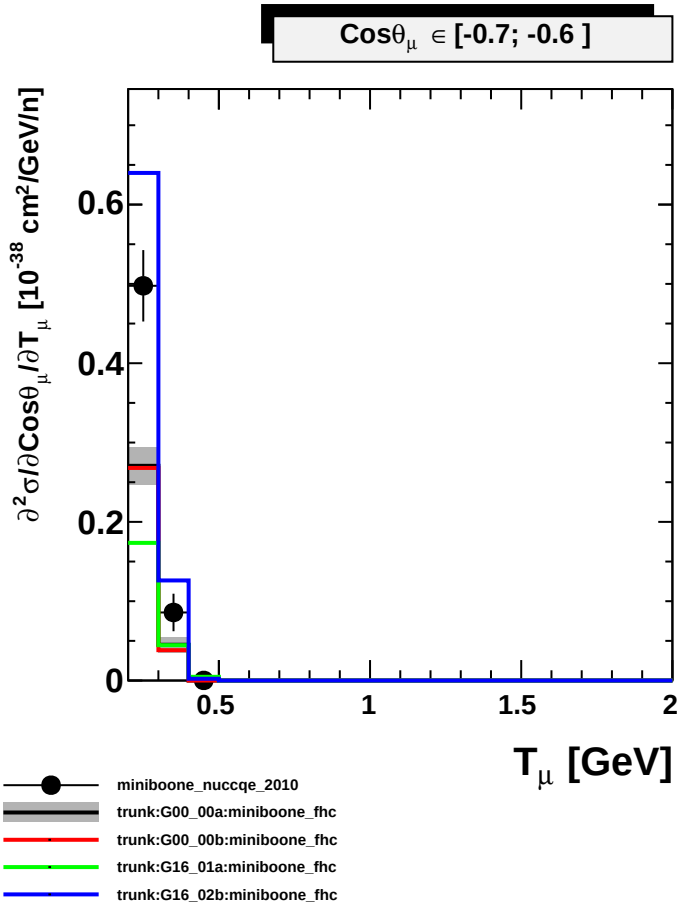
Cosθμ ∈ [-0.7; -0.6 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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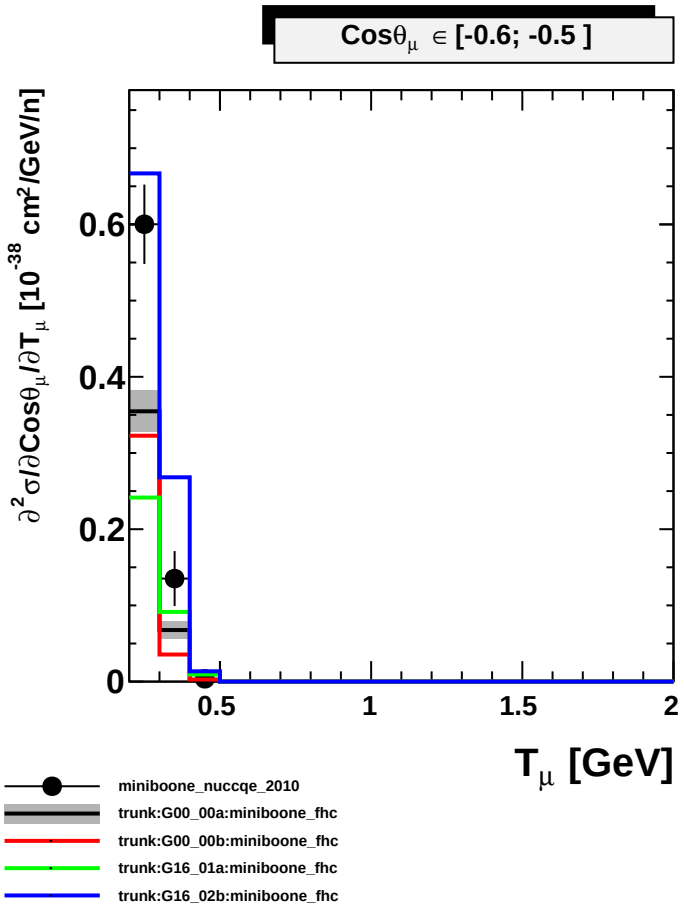
Cosθμ ∈ [-0.6; -0.5 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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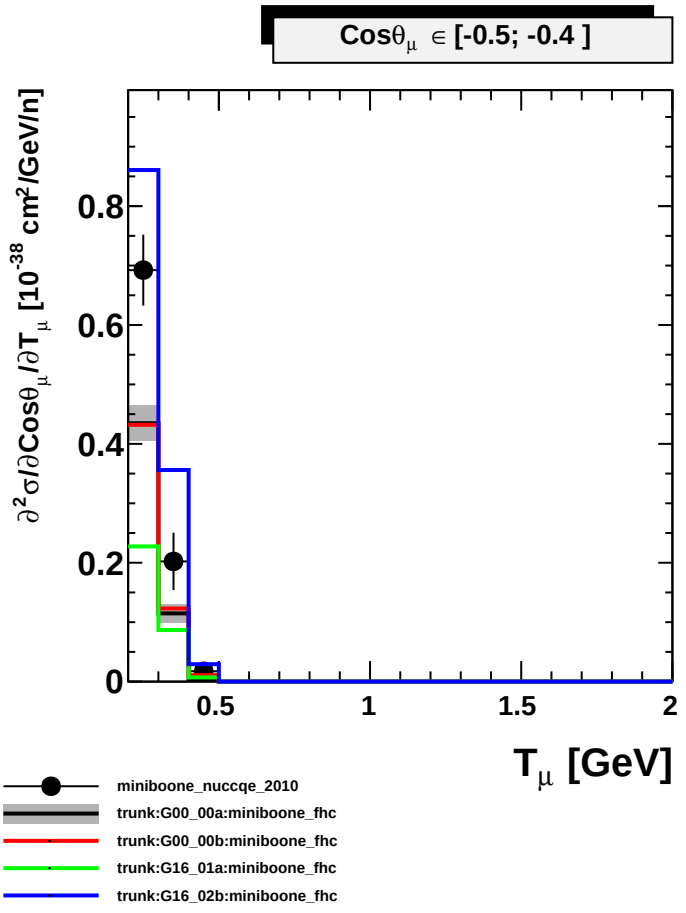
Cosθμ ∈ [-0.5; -0.4 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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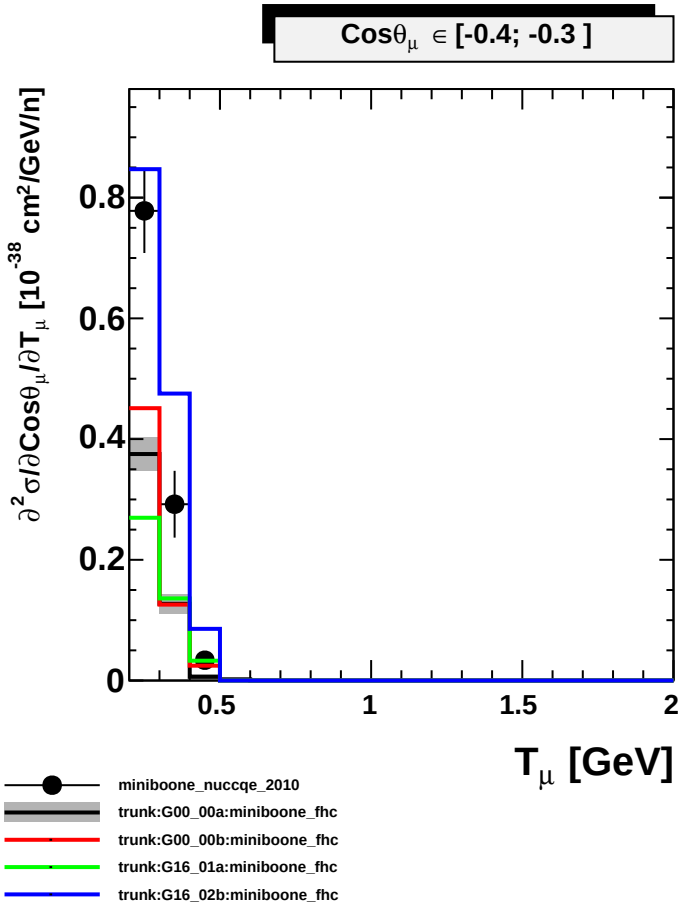
Cosθμ ∈ [-0.4; -0.3 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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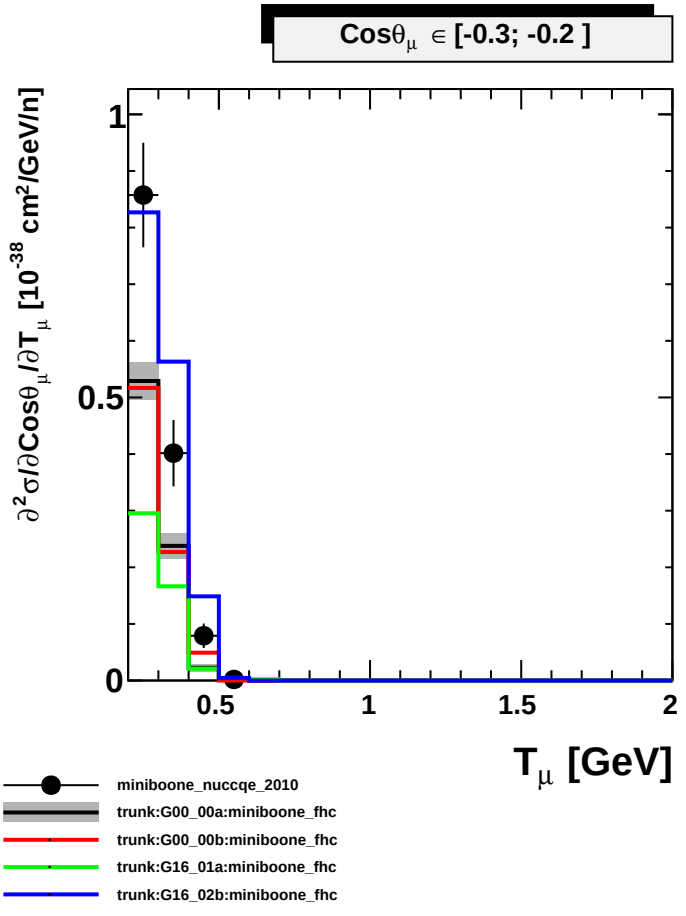
Cosθμ ∈ [-0.3; -0.2 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
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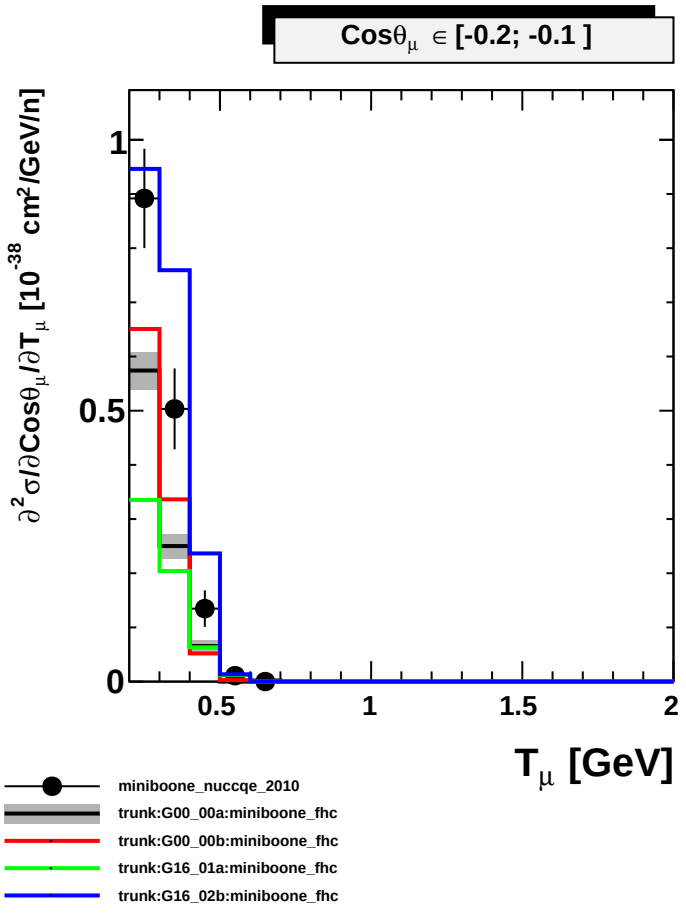
Cosθμ ∈ [-0.2; -0.1 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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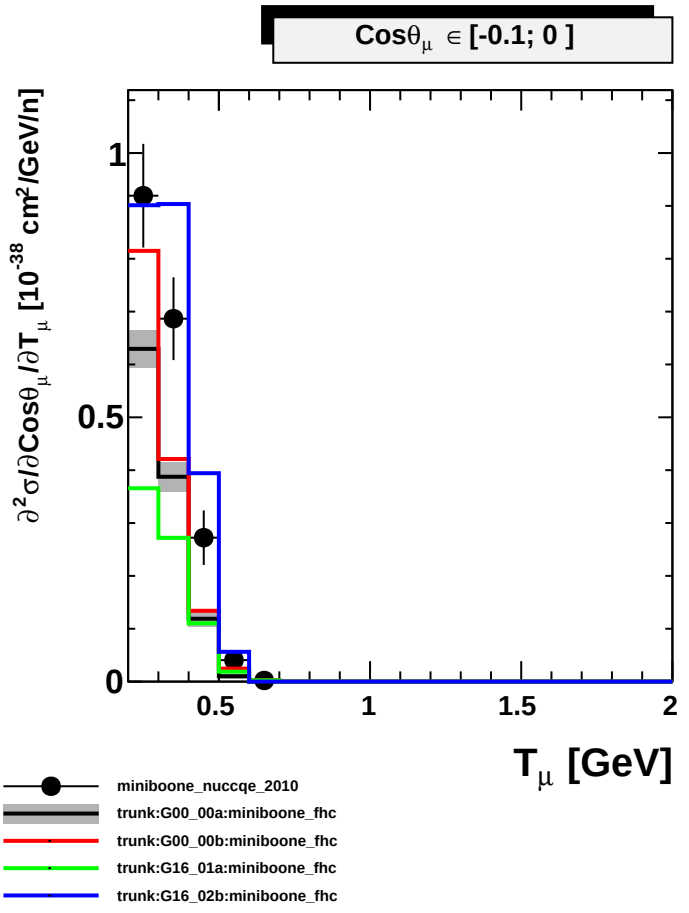
Cosθμ ∈ [-0.1; 0 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
trunk:G00_00a:miniboone_fhc
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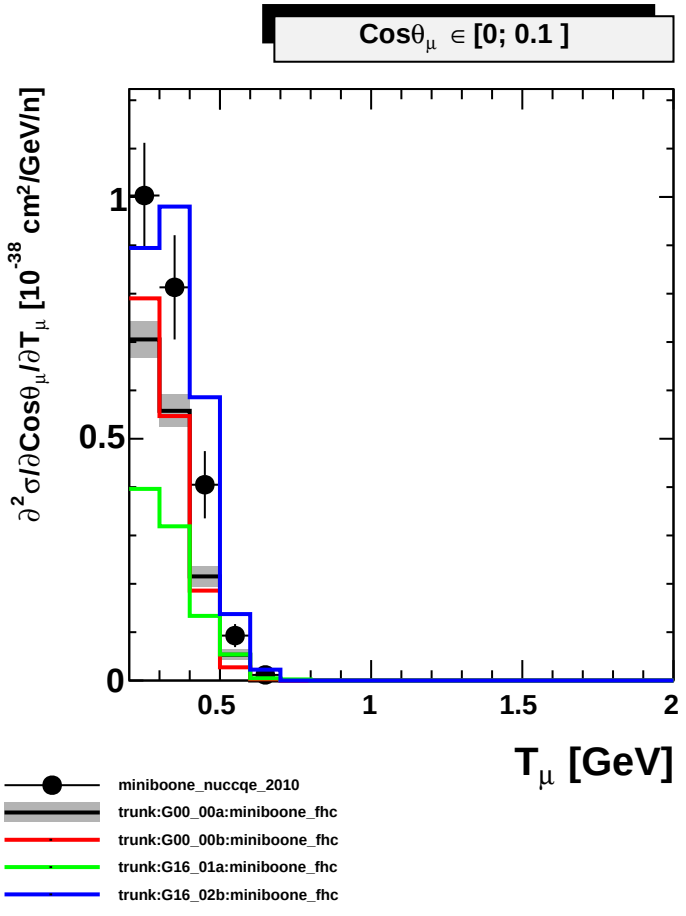
Cosθμ ∈ [0; 0.1 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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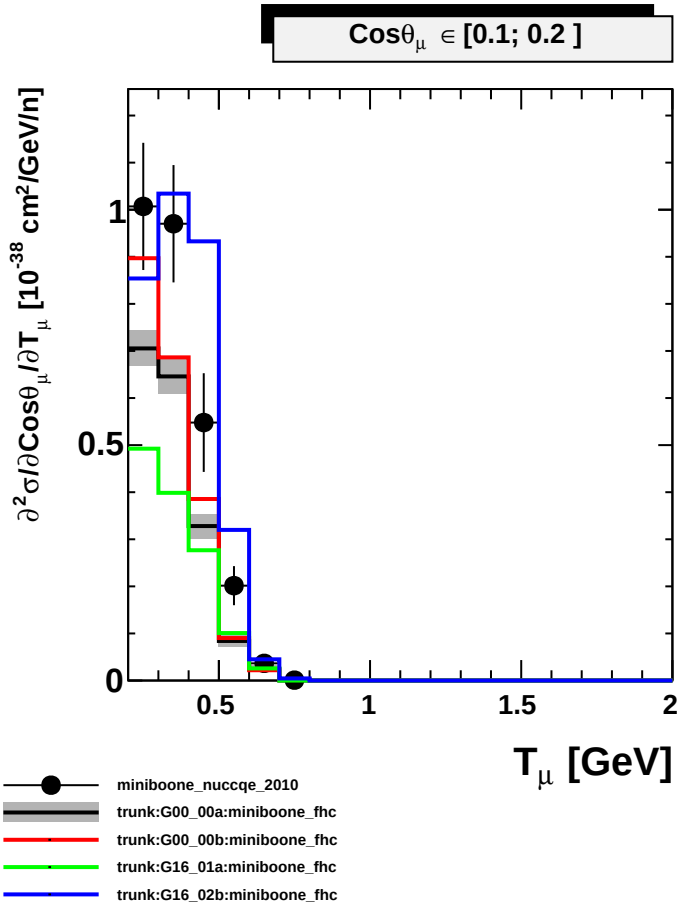
Cosθμ ∈ [0.1; 0.2 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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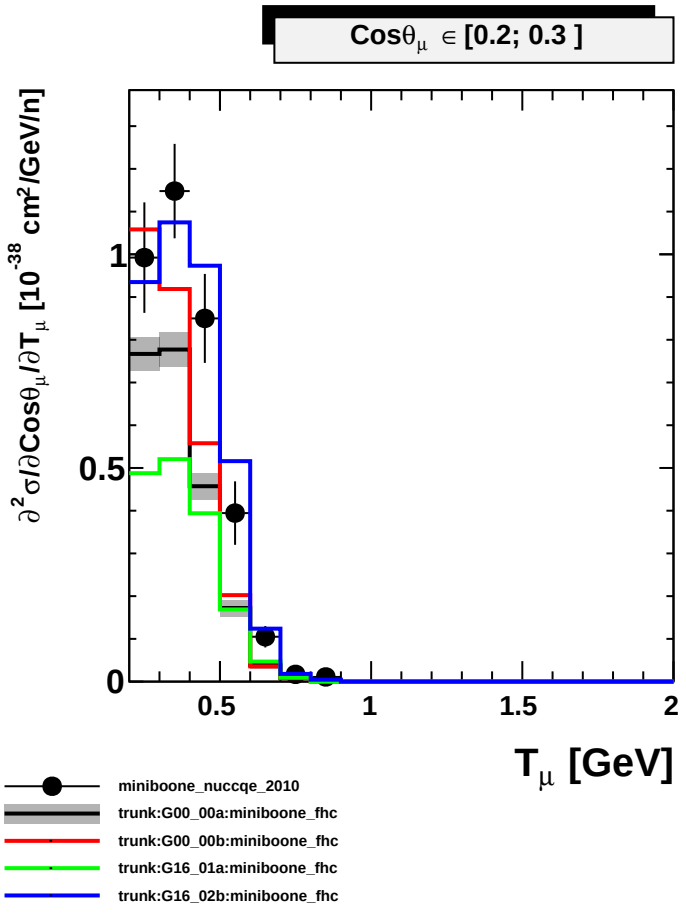
Cosθμ ∈ [0.2; 0.3 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
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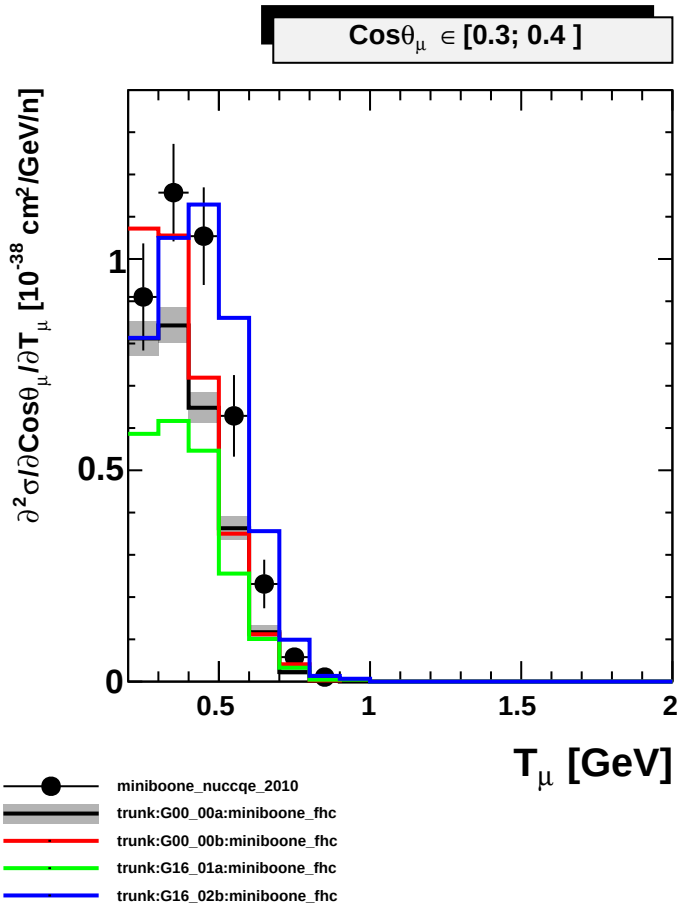
Cosθμ ∈ [0.3; 0.4 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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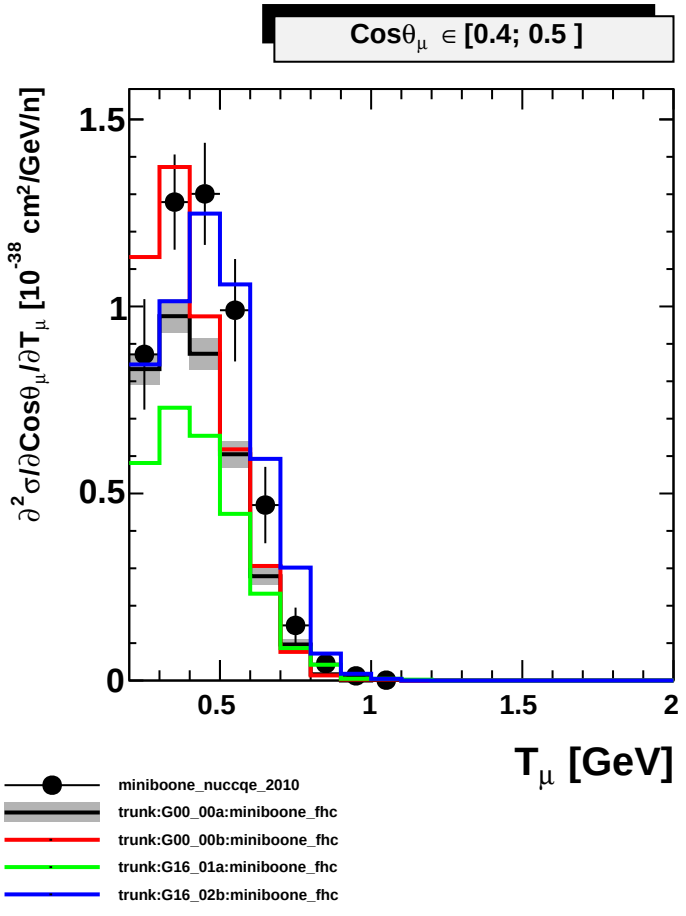
Cosθμ ∈ [0.4; 0.5 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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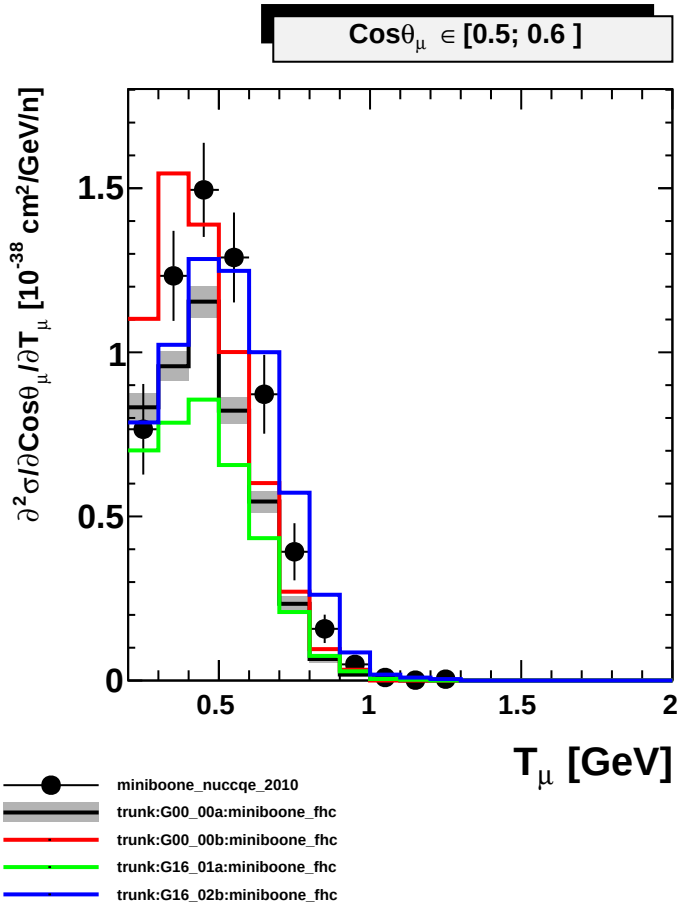
Cosθμ ∈ [0.5; 0.6 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
miniboone_nuccqe_2010
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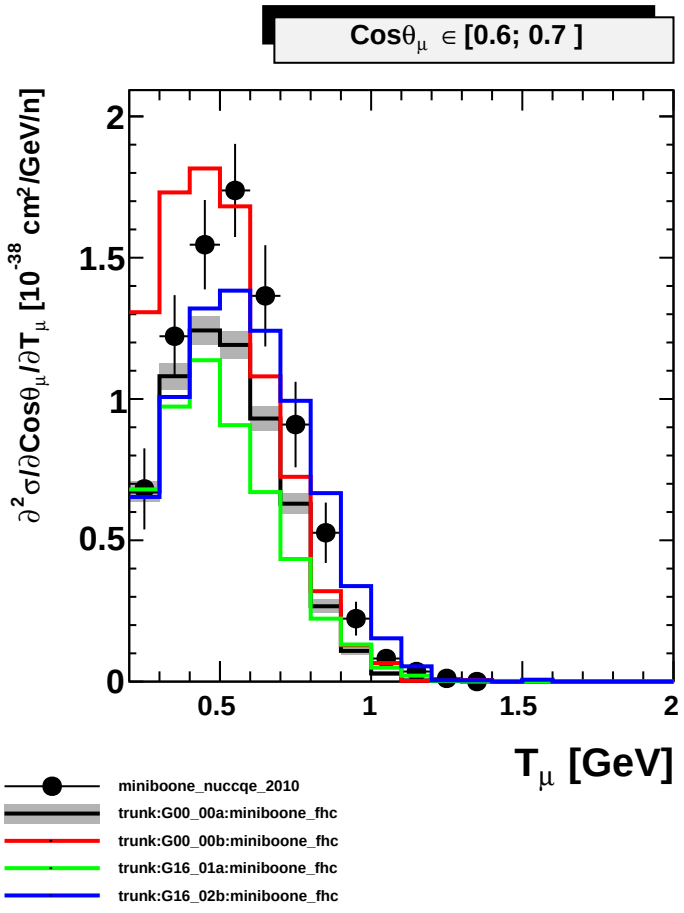
Cosθμ ∈ [0.6; 0.7 ]
∂²σ/∂Cosθμ/∂Tμ [10⁻³⁸ cm²/GeV/n]
Tμ [GeV]
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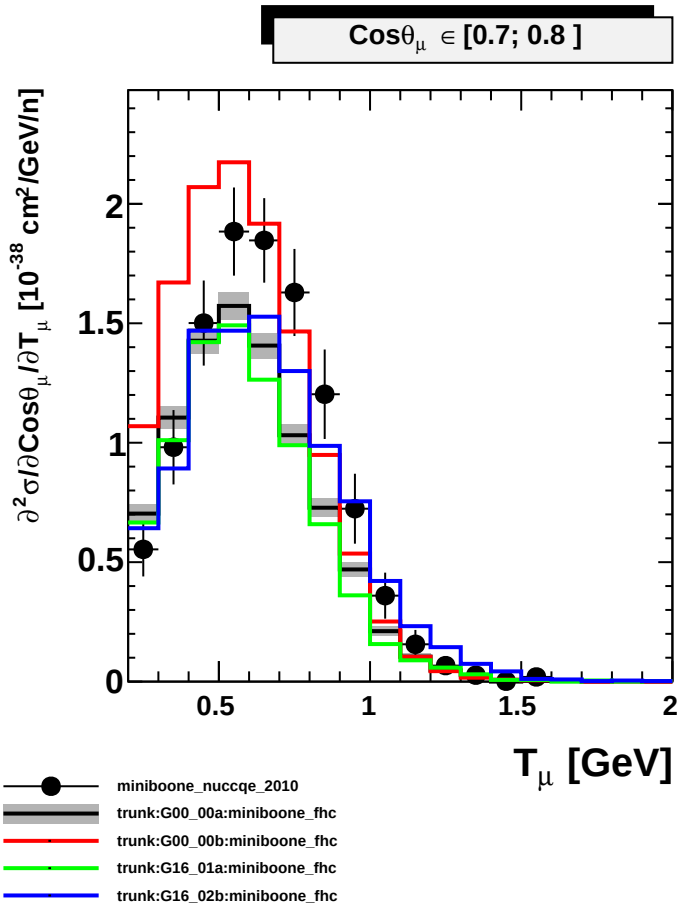
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Tμ [GeV]
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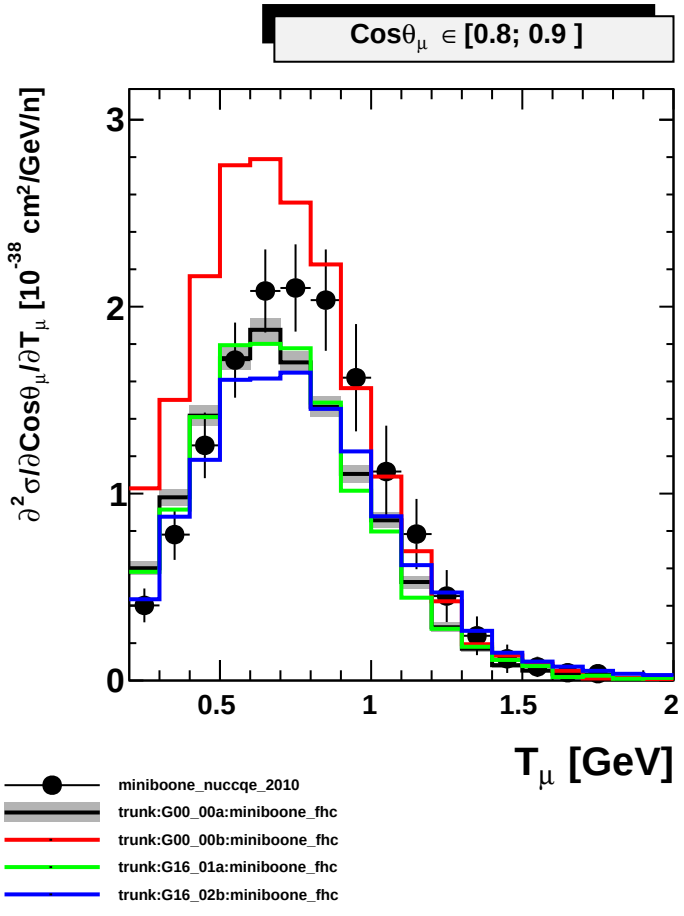
Cosθμ ∈ [0.8; 0.9 ]
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Tμ [GeV]
miniboone_nuccqe_2010
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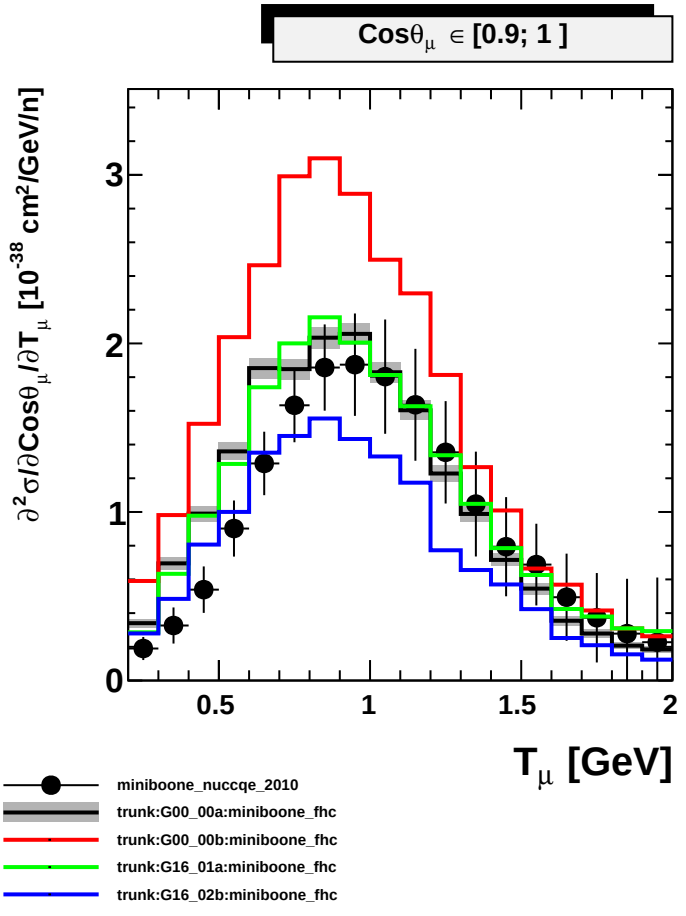
Cosθμ ∈ [0.9; 1 ]
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Tμ [GeV]
miniboone_nuccqe_2010
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