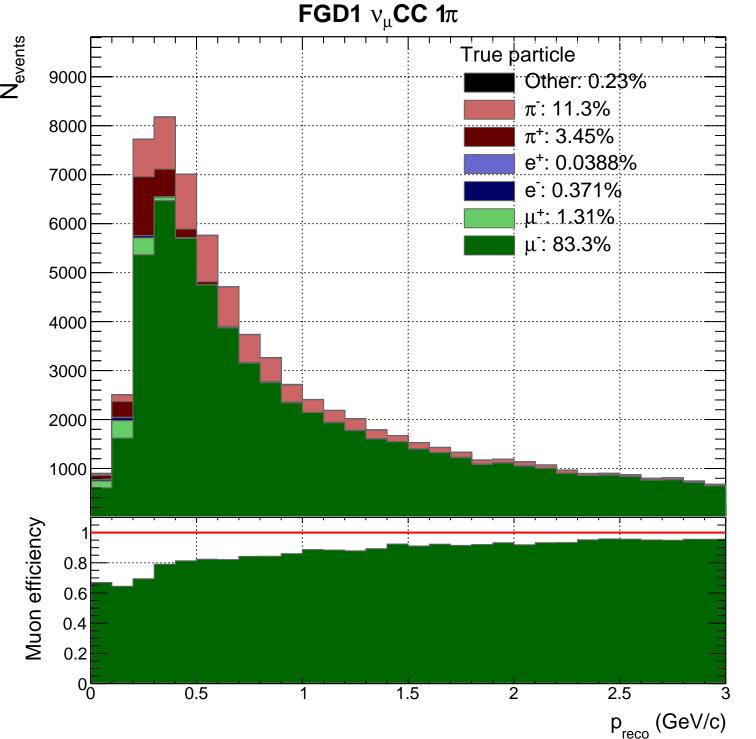
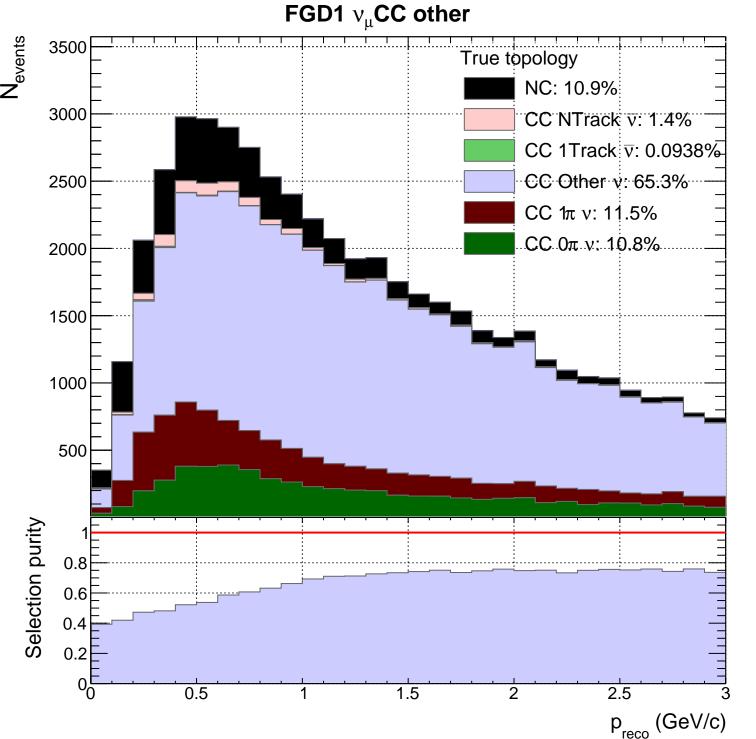
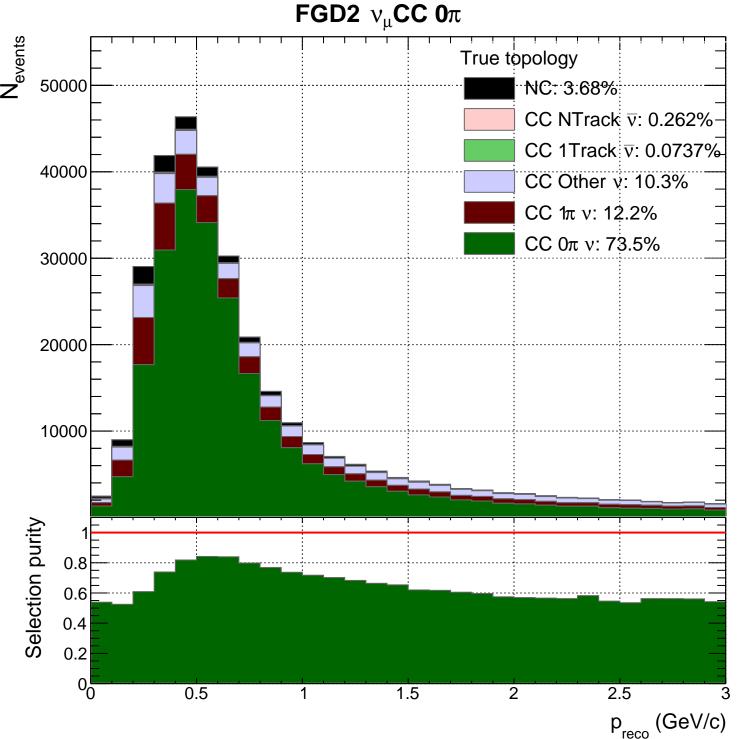


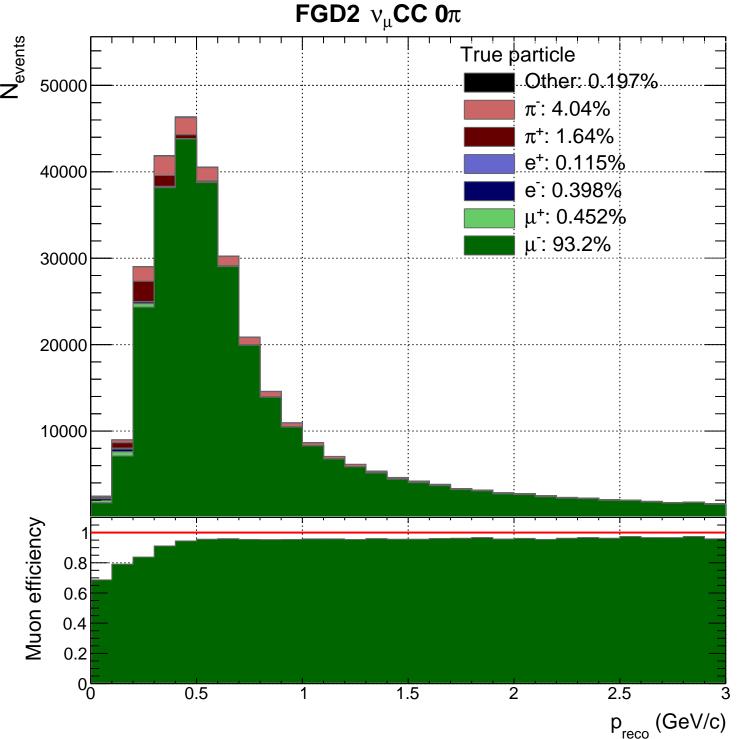
FGD1 ν_{μ} CC 1π events True topology 9000 NC: 7.04% CC NTrack ⊽: 2.46% 8000 CC 1Track ⊽: 0.126% 7000 CC Other v: 25.2% CC 1π v: 58% 6000 CC 0π v: 7.19% 5000 4000 3000 2000 1000 Selection purity 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)





FGD1 ν_{μ} CC other $\mathsf{N}_{\mathsf{events}}$ 3500 True particle Other: 0.804% π: 21.2% 3000 π^+ : 0.946% e+: 0.551% 2500 e: 3.26% μ^+ : 0.271% μ : 73% 2000 1500 1000 500 Muon efficiency 8.0 0.6 0.4 0.2 0, 0.5 1.5 2 2.5 p_{reco} (GeV/c)





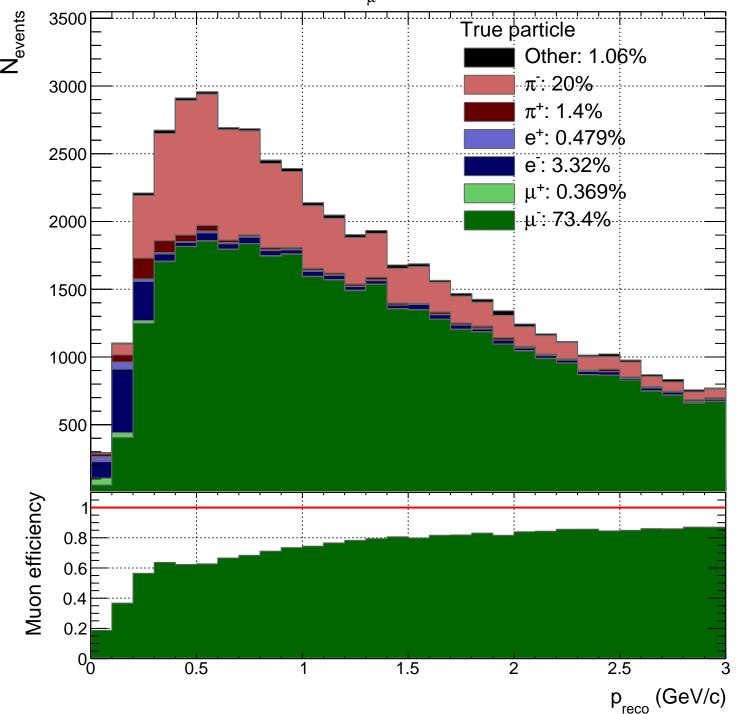
FGD2 ν_{μ} CC 1π $\mathsf{N}_{\mathsf{events}}$ 8000 True topology NC: 7.35% 7000 CC NTrack ⊽: 2.69% CC 1Track v: 0.123%-6000 CC Other v: 25.5% CC 1π v: 57.1% 5000 CC 0π v: 7.21% 4000 3000 2000 1000 Selection purity 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD2 ν_{μ} CC 1 π $\mathsf{N}_{\mathsf{events}}$ 8000 True particle Other: 0.201% 7000 π^{-} : 11.5% π^+ : 3.55% e⁺: 0.0416% 6000 e: 0.522% μ+: 1.08% 5000 μ^{-} : 83.1% 4000 3000 2000 1000 Muon efficiency 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD2 ν_{μ} CC other 3500 True topology NC: 10.8% 3000 CC NTrack v̄: 1.27% CC 1Track v: 0.0994%-2500 CC Other v: 64.9% CC 1π v: 11.5% CC 0π v: 11.3% 2000 1500 1000 500 Selection purity 8.0 0.6 0.4 0.2 0.5 2.5 1.5 2

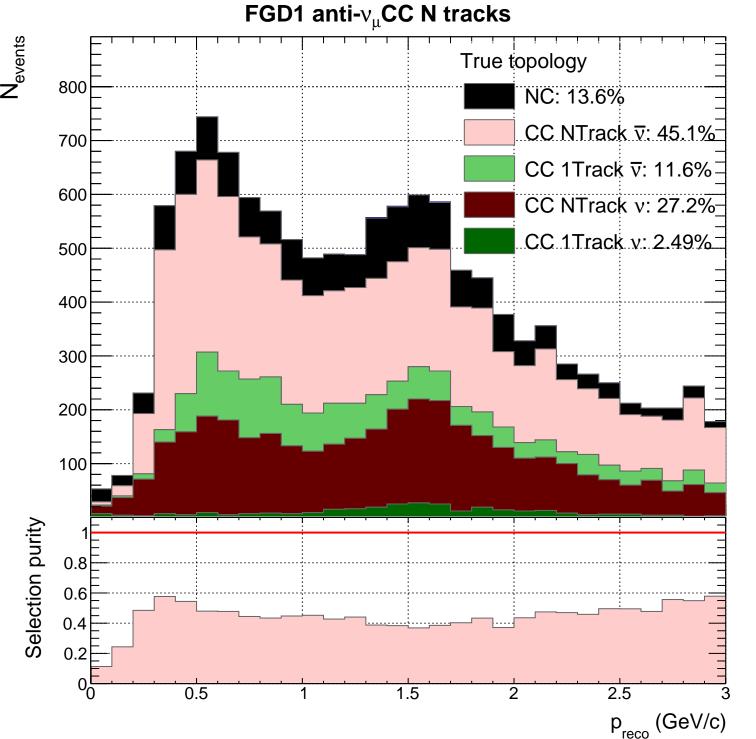
p_{reco} (GeV/c)

FGD2 ν_{μ} CC other

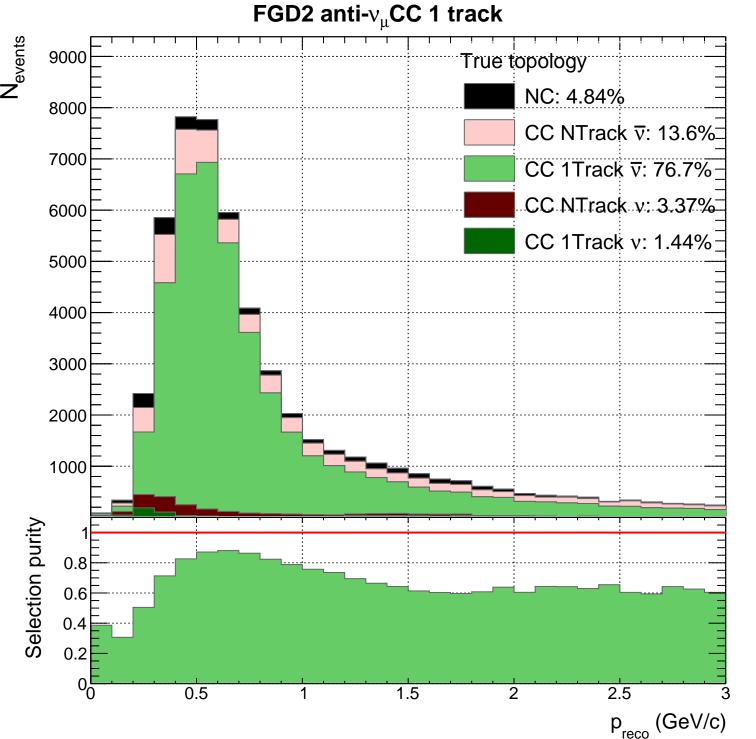


FGD1 anti- ν_{μ} CC 1 track $\mathsf{N}_{\mathsf{events}}$ 9000 True topology NC: 4.71% 8000 CC NTrack v: 13.9%-7000 CC 1Track v̄: 76.7% CC NTrack v: 3.35% 6000 CC 1Track v: 1.29% 5000 4000 3000 2000 1000 Selection purity 8.0 0.6 0.4 0.2 0.5 1.5 2.5 2 p_{reco} (GeV/c)

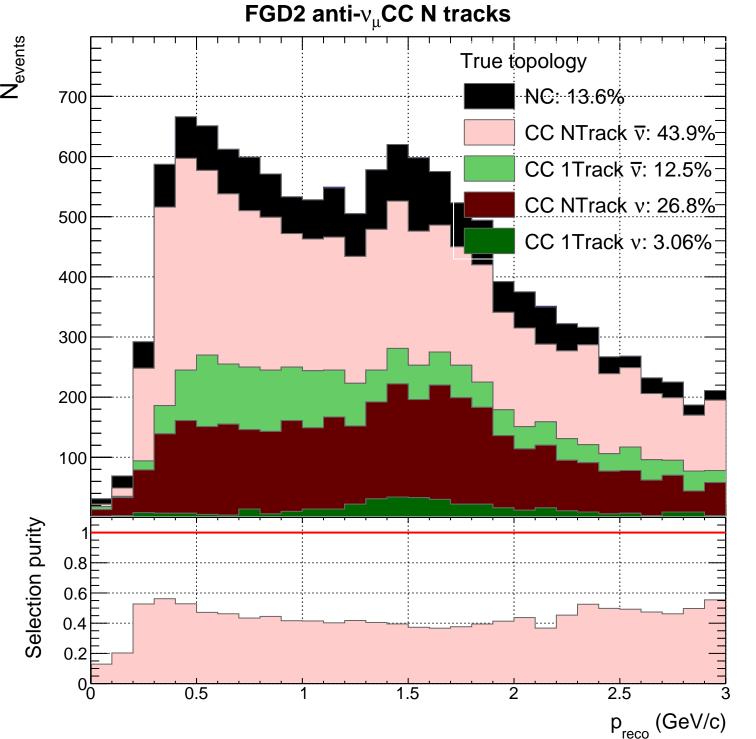
FGD1 anti- ν_{μ} CC 1 track $\mathsf{N}_{\mathsf{events}}$ 9000 True particle Other: 2.86% 8000 $\pi: 0.912\%$ π^+ : 4.95% 7000 e+: 0.0989% e: 0.0692% 6000 μ+: 90% μ^{-} : 1.08% 5000 4000 3000 2000 1000 Muon efficiency 8.0 0.6 0.4 0.2 0.5 1.5 2 2.5 p_{reco} (GeV/c)



FGD1 anti- ν_{μ} CC N tracks events True particle Other: 18.7% 800 π : 0.699% π+: 24% 700 e+: 0.959% e: 0.536% 600 μ+: 54.1% μ : 0.983% 500 400 300 200 100 Muon efficiency 8.0 0.6 0.4 0.2 0.5 1.5 2 2.5 p_{reco} (GeV/c)



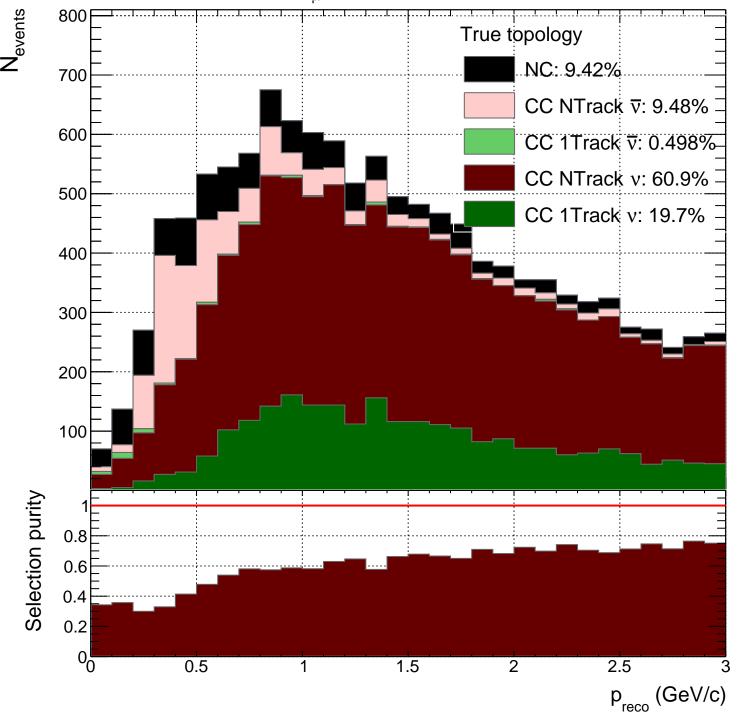
FGD2 anti- ν_{μ} CC 1 track $\mathsf{N}_{\mathsf{events}}$ True particle 9000 Other: 3.04% 8000 π : 1.15% π^+ : 4.73% 7000 e+: 0.151% e: 0.0518% 6000 μ+: 89.6% μ^{-} : 1.23% 5000 4000 3000 2000 1000 Muon efficiency 8.0 0.6 0.4 0.2 0.5 1.5 2 2.5 p_{reco} (GeV/c)



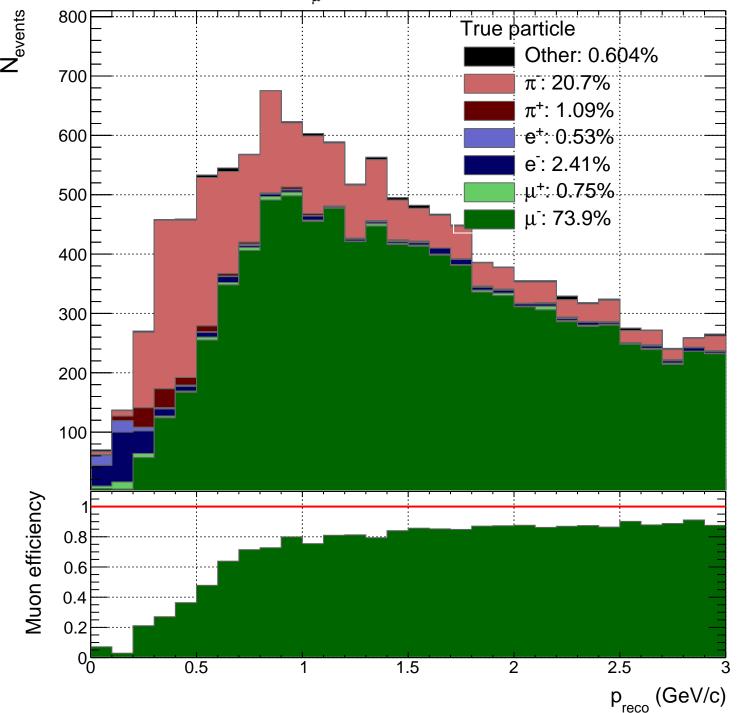
FGD2 anti- ν_{μ} CC N tracks events True particle Other: 19.8% 700 π : 0.888% π^+ : 22.9% 600 e+: 1.04% e: 0.456% μ+: 53.8% 500 μ⁻: 1.15% 400 300 200 100 Muon efficiency 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD1 ν_{μ} RHC CC 1 track events True topology 1400 NC: 9.18% CC NTrack ⊽: 5.6% 1200 CC 1Track ⊽: 4.13% CC NTrack v: 28.8% 1000 CC 1Track v: 52.2% 800 600 400 200 Selection purity 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD1 ν_{μ} RHC CC 1 track events True particle Other: 0.447% 1400 π̄: 12.4% π^+ : 4.05% 1200 e+: 0.46% e: 1.06% 1000 μ+: 5.1% μ^{-} : 76.5% 800 600 400 200 Muon efficiency 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c) FGD1 ν_{μ} RHC CC N tracks



FGD1 ν_{μ} RHC CC N tracks



FGD2 ν_{μ} RHC CC 1 track events True topology 1600 NC: 9.64% 1400 CC NTrack v: 5.74% CC 1Track v̄: 4.36% 1200 CC NTrack v: 28.5% 1000 CC 1Track v: 51.8% 800 600 400 200 Selection purity 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD2 ν_{μ} RHC CC 1 track events True particle 1600 Other: 0.495% π^{-} : 11.9% 1400 π^+ : 5.79% e+: 0.366% 1200 e: 1.04% μ+: 5.47% 1000 μ: 74.9% 800 600 400 200 Muon efficiency 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD2 ν_{μ} RHC CC N tracks $\mathsf{N}_{\mathsf{events}}$ 700 True topology NC: 9.03% 600 CC NTrack ⊽: 9.8% CC 1Track ⊽: 0.533% 500 CC NTrack v: 61.4% CC 1Track v: 19.2% 400 300 200 100 Selection purity 8.0 0.6 0.4 0.2 00 0.5 1.5 2 2.5 p_{reco} (GeV/c)

FGD2 ν_{μ} RHC CC N tracks $\mathsf{N}_{\mathsf{events}}$ True particle 700 Other: 0.641% $\pi^{\bar{}}$: 20.1% 600 π^+ : 1.27% e+: 0.325% e: 2.57% 500 μ+: 0.916% μ⁻: 74.2% 400 300 200 100 Muon efficiency 8.0 0.6 0.4 0.2 0.5 1.5 2 2.5 p_{reco} (GeV/c)