

ν_τ Contribution to Signal from SNR 1713.7 3946

R.Mele – F.Di Capua
Napoli Group

Goals of Napoli Group in Source Analysis

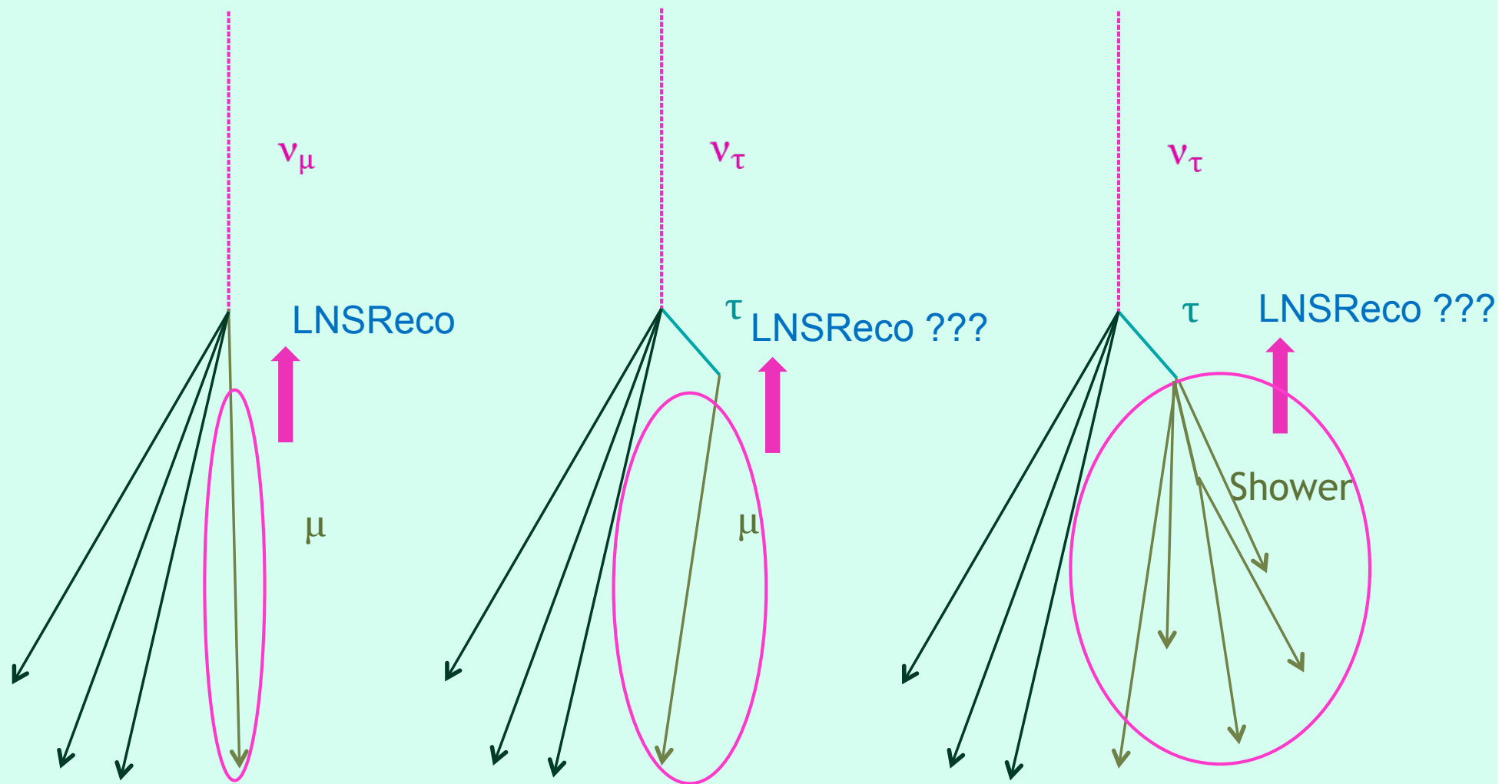
§ Study of ν tau Contribution to neutrino signal from SNR's (with particular attention to RX J1713.7-3946)

- Using LNSreco Software
- Using Shower Reconstruction Software

§ Study of all flavours Contribution to neutrino signal from SNR's

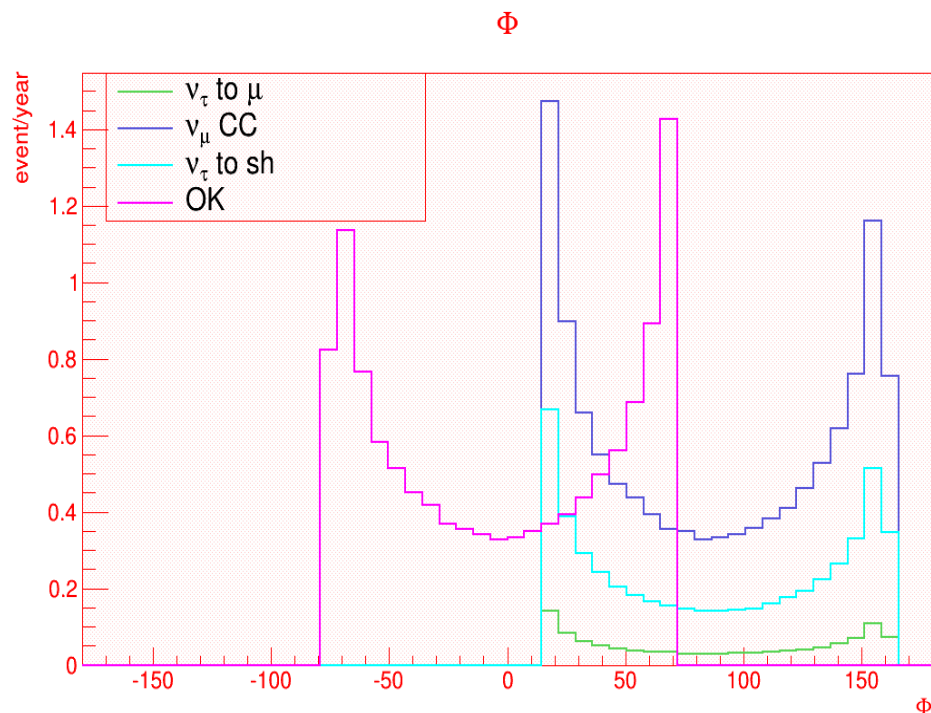
§ Study of Cuts to use to maximize Sensitivity

Tau neutrinos in SNR's detection



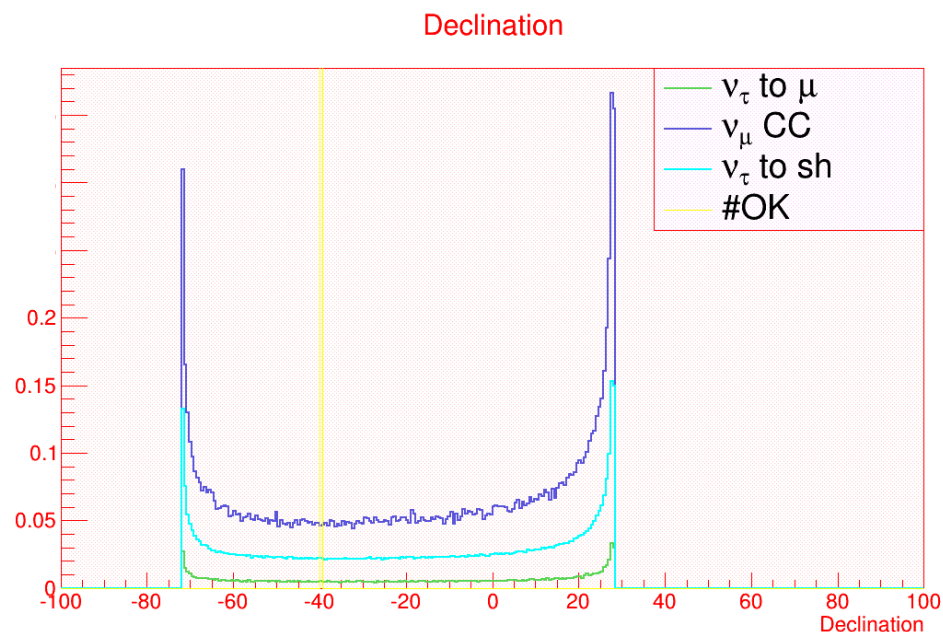
Neutrino Tau Generation

Problems with genhenv7r2



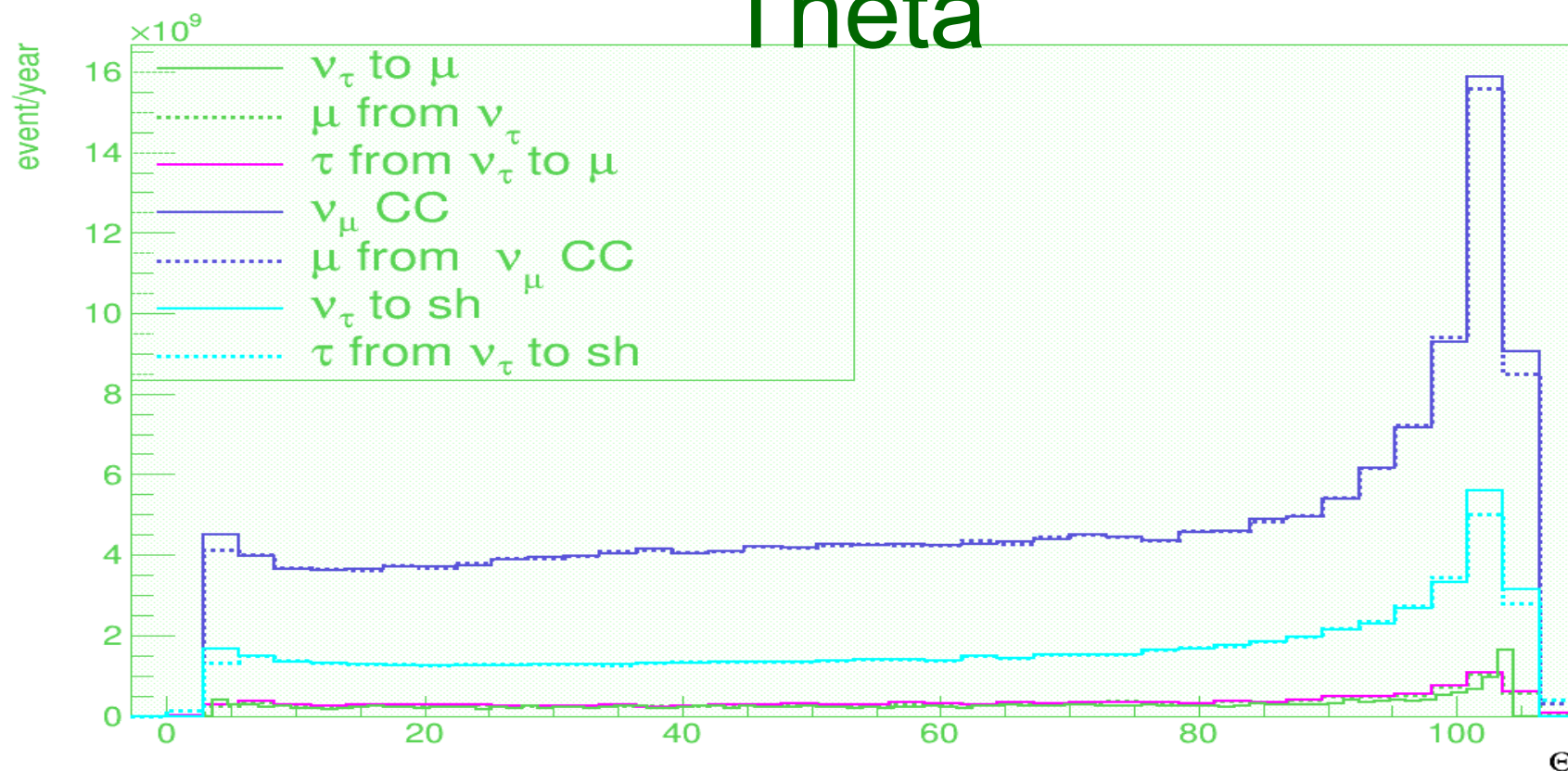
Phi distribution seems to be translated of $\sim 90^\circ$

Declination distribution seems to **not** be around Source Declination



Neutrino Tau Generation Results with genhenv7r3

Theta

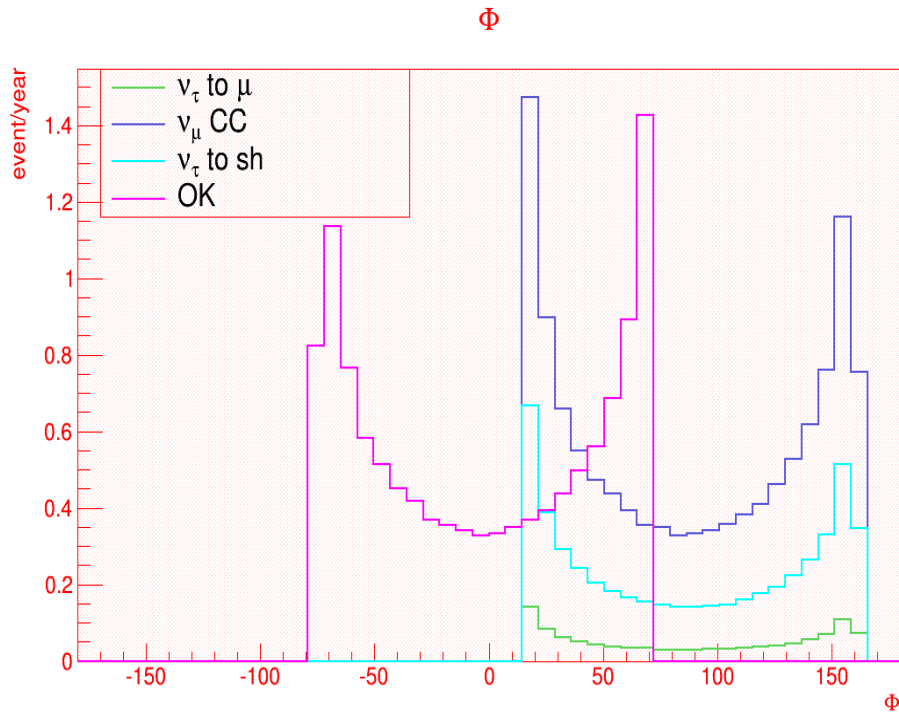


	# events
ν_μ	18.233
$\nu_\tau \rightarrow \mu$	2.40724
$\nu_\tau \rightarrow \text{Sh}$	6.37853

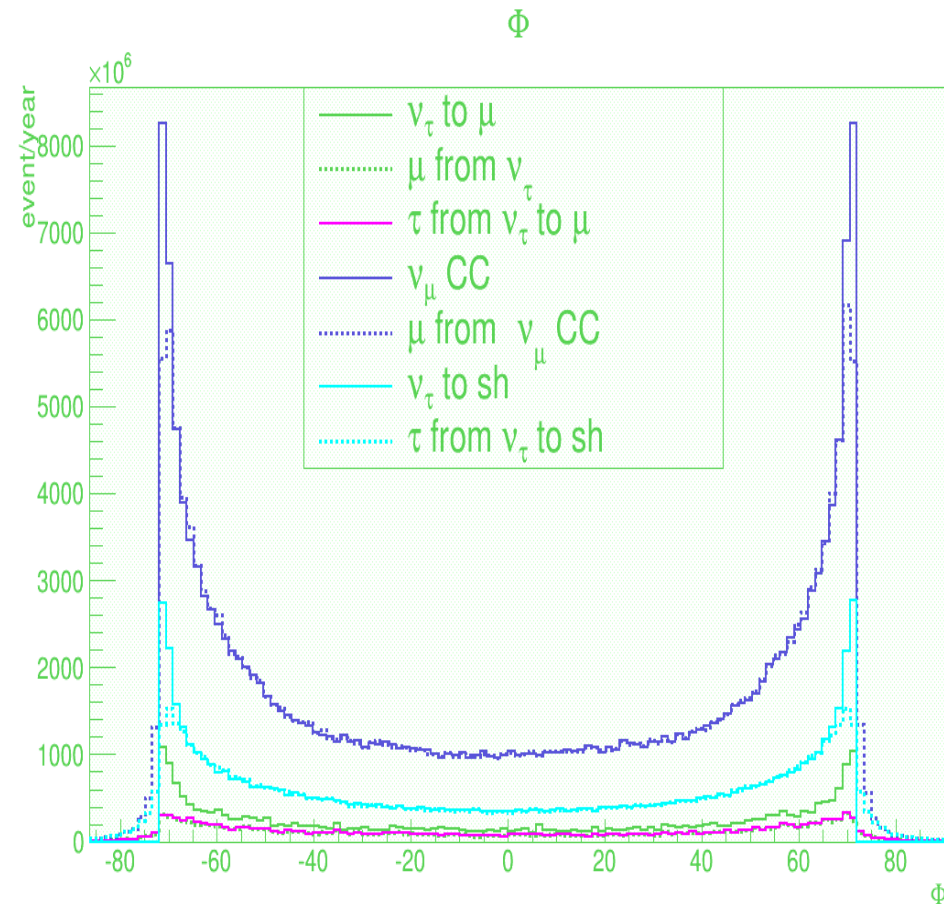
Number of events/year in the detector
1 block

Neutrino Tau Generation

Results with genhenv7r3 Phi



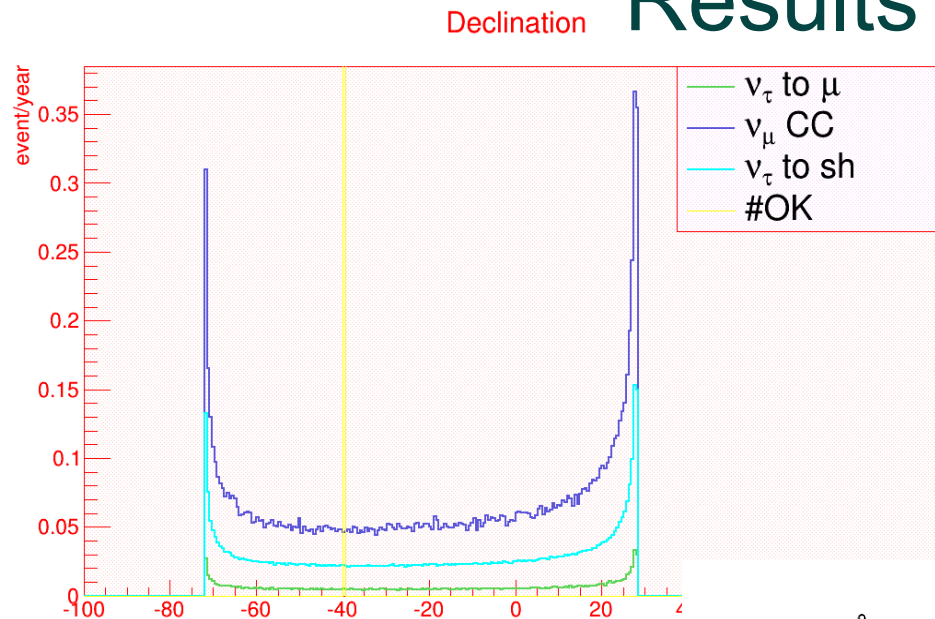
← v7r2



v7r3 →

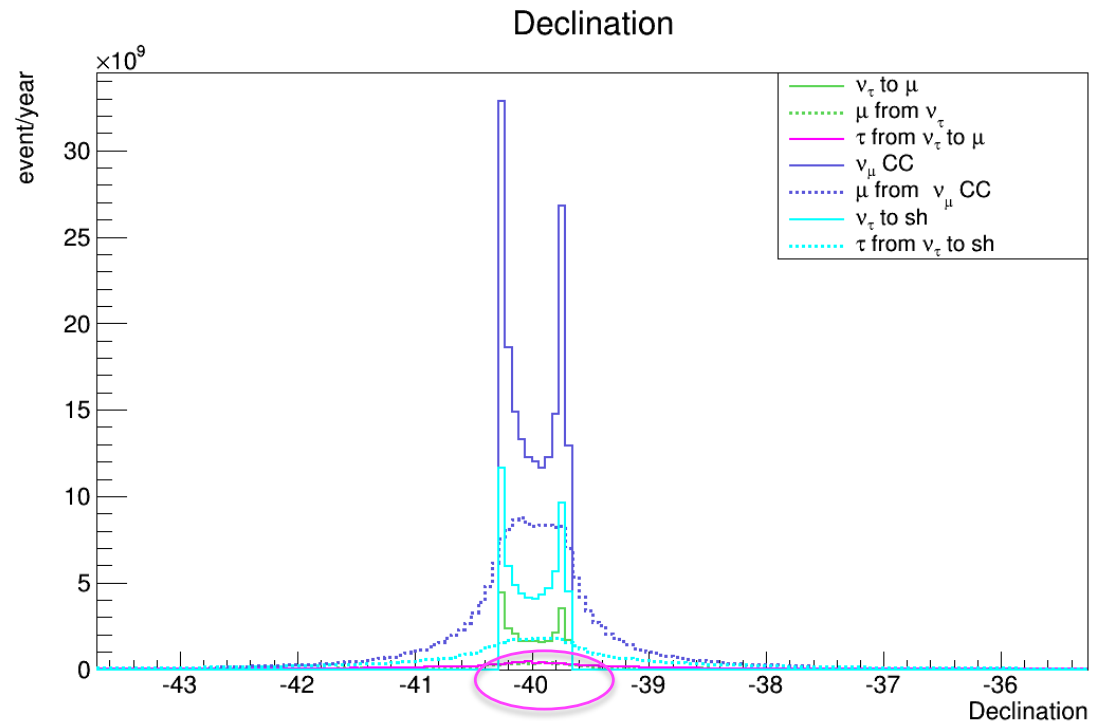
Neutrino Tau Generation

Results with v7r3



v7r2

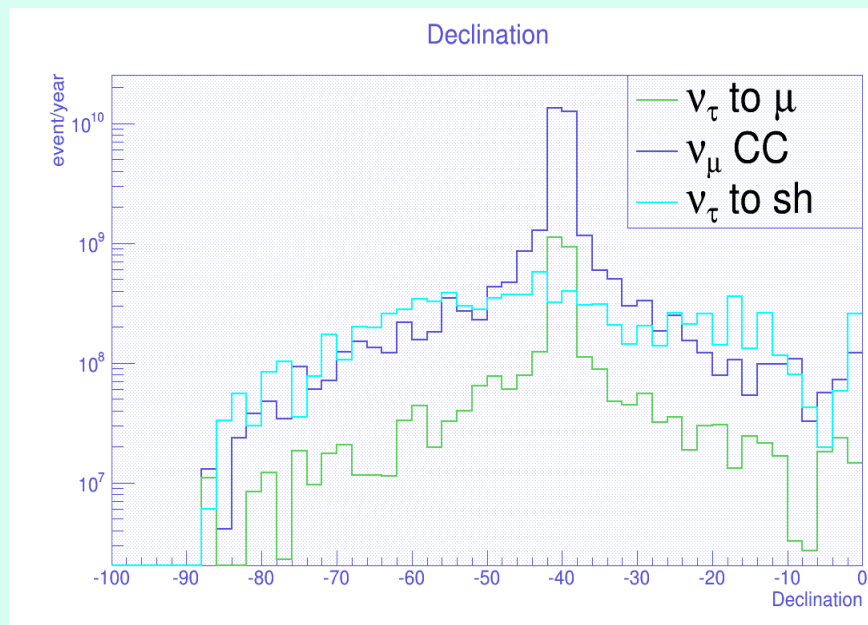
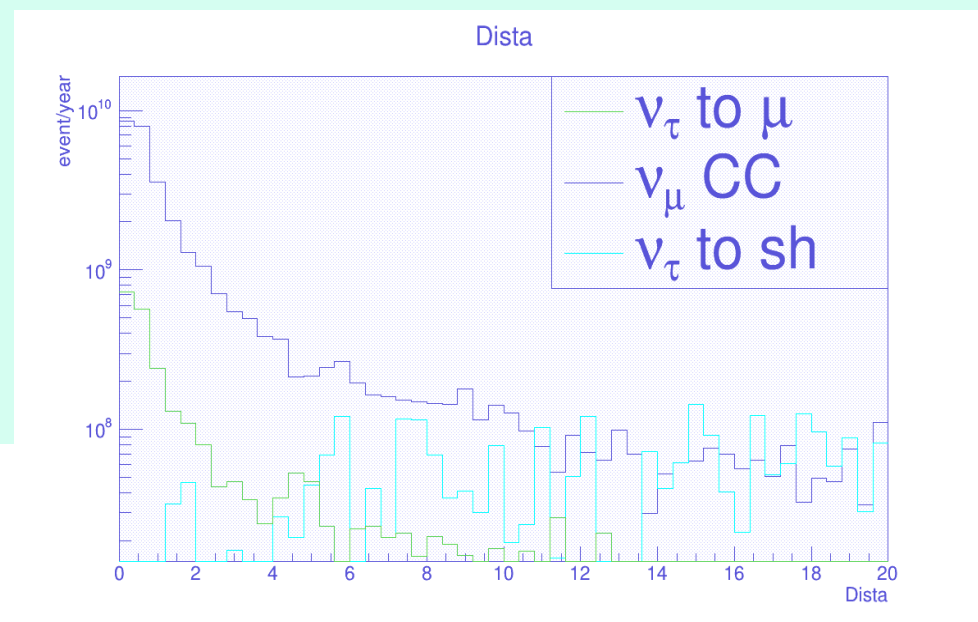
v7r3



Preliminary Study

contribution to signal from RX J1713.7 3946

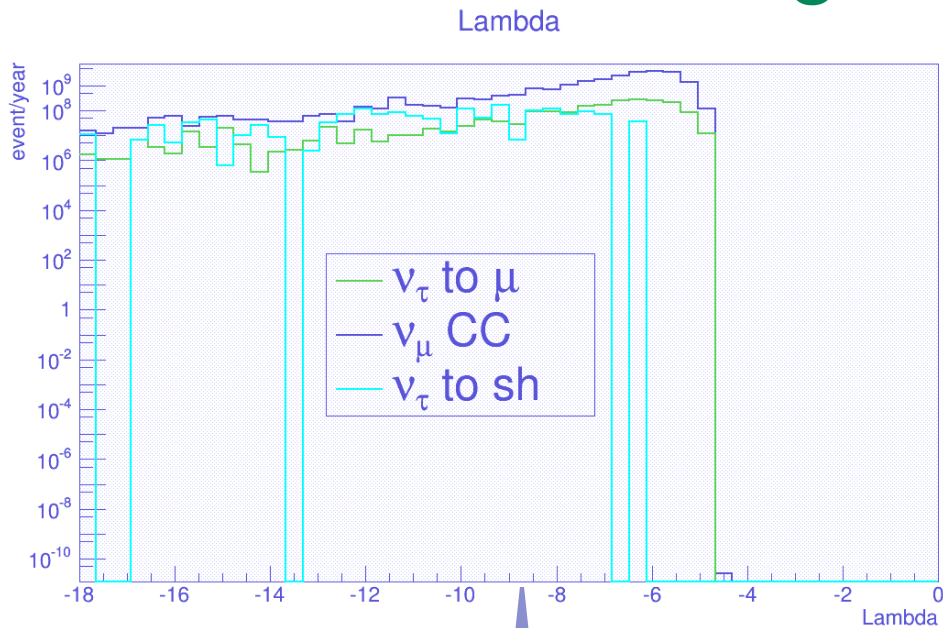
	$\theta \leq 96$
ν_μ	3.64111
$\nu\tau \rightarrow \mu$	0.44912
$\nu\tau \rightarrow \text{Sh}$	1.15634



	Angular cut $< 1^\circ$ around direction source
ν_μ	2.46149
$\nu\tau \rightarrow \mu$	0.357226
$\nu\tau \rightarrow \text{Sh}$	1.01714

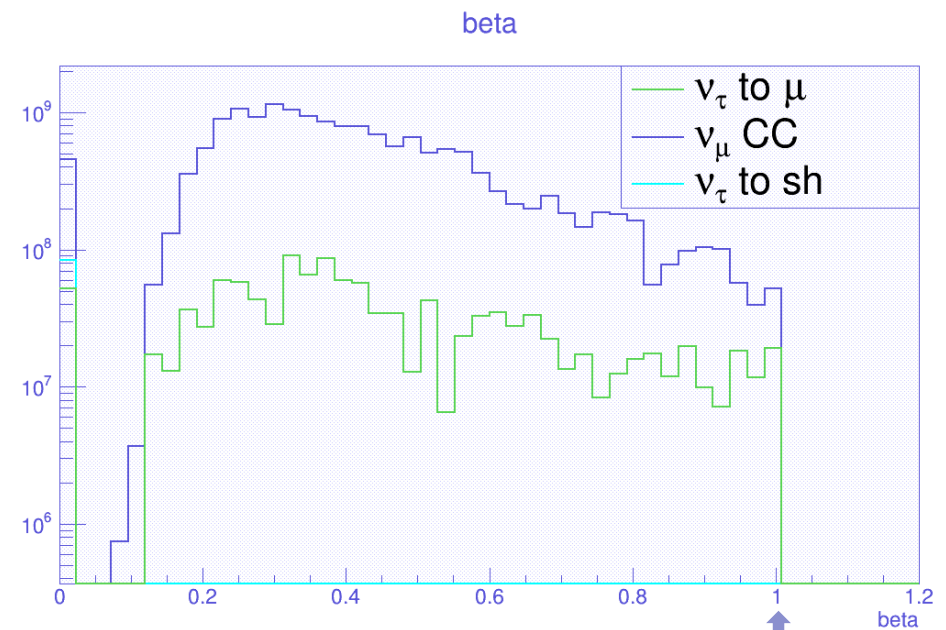
Preliminary Study

contribution to signal from RX J1713.7 3946

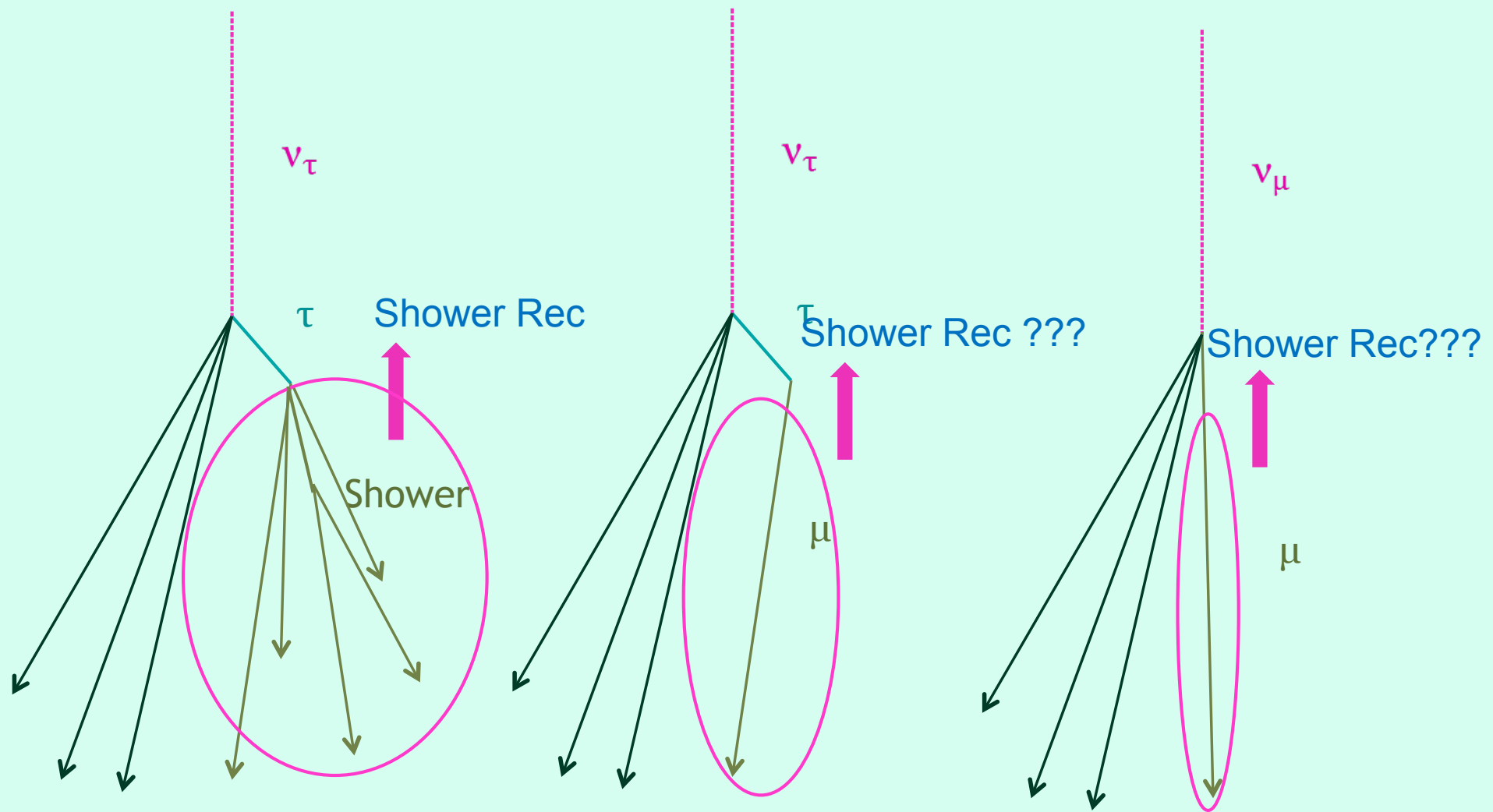


	$\Lambda \geq -7$
ν_μ	1.61965
$\nu_\tau \rightarrow \mu$	0.118228
$\nu_\tau \rightarrow Sh$	0.00836105

	$B \leq 1$
ν_μ	1.61965
$\nu_\tau \rightarrow \mu$	0.0946987
$\nu_\tau \rightarrow Sh$	0.00836105



Tau neutrinos in SNR's detection



Coming soon ...

§ Confirmation of results obtained for Using LNSreco Software...

- Study of further types of cut to use to increase signal

§ Use of Shower Reconstruction Software

- Using the same files used for LNSreco
- Study of Cuts

§ Combination of LNSreco and Shower Software for reconstruct all flavours signal from SNR's