

# Group Meeting – 14/03/19



- Files:

JTE.KM3Sim.gseagen.muon-CC.3-100GeV-9.1E7-1bin-3.0gspec.ORCA115\_9m\_2016.\*.root

orca\_115strings\_av23min20mhorizontal\_18OMs\_alt9mvertical\_v1.det

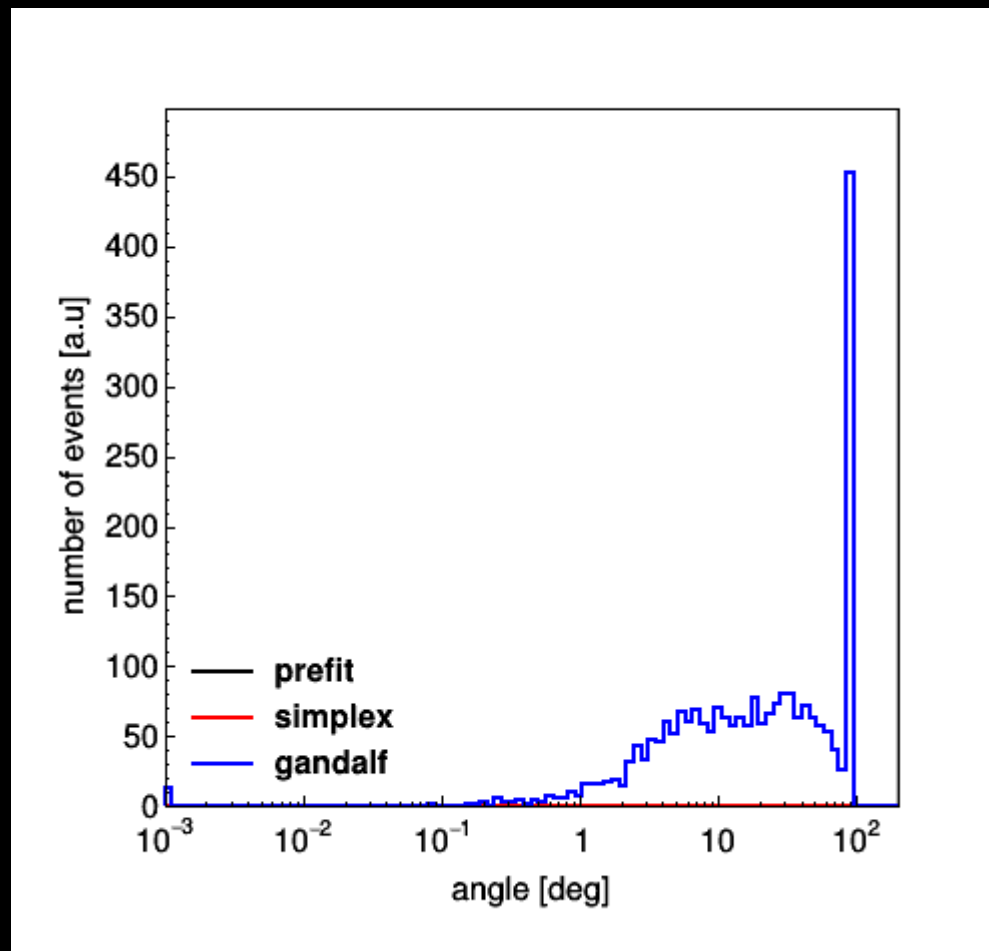
/in2p3/km3net/mc/atm\_neutrino/KM3NeT\_ORCA\_115\_23m\_9m/v1.1.1/

- As a means of improving JGandalf, I ran JMCEvt (takes Monte Carlo truth as starting point for Gandalf), then ran JGandalf...

(in principle should give JGandalf the best starting positions to fit to)

- JMCEvt  $\rightarrow$  JGandalf

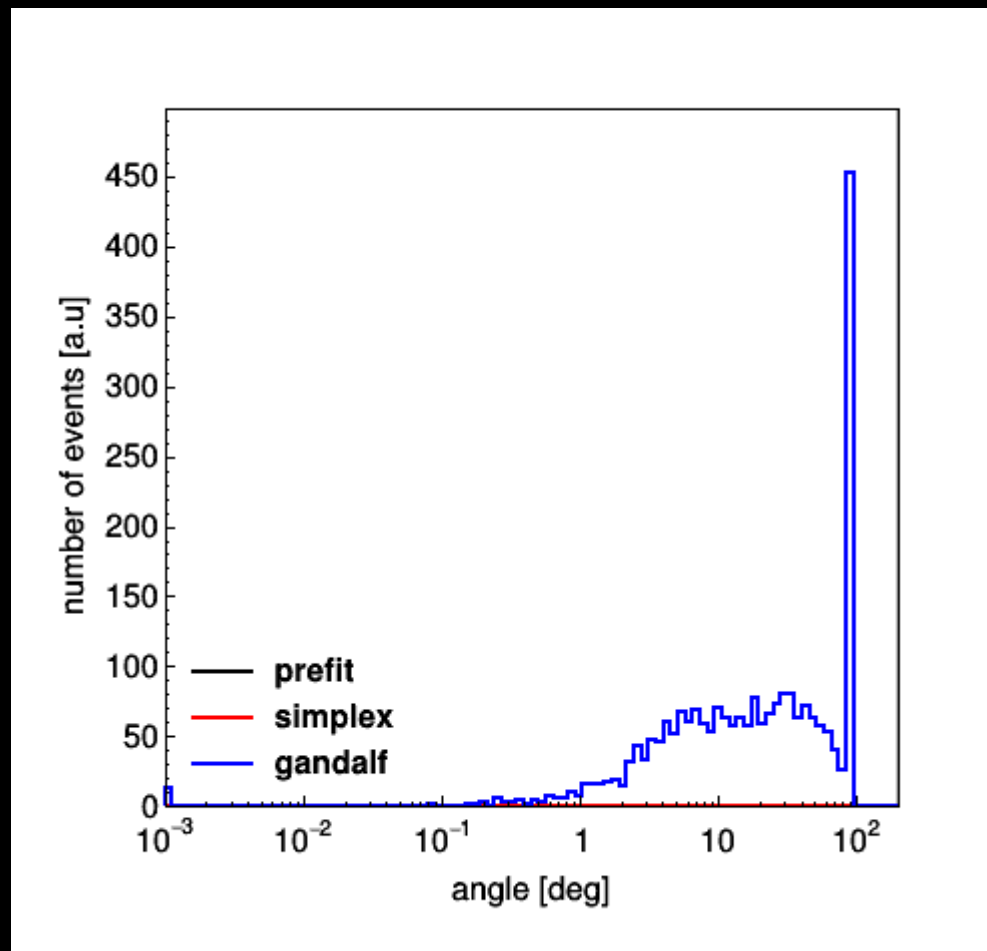
Extremely poor fit..



Angular difference

- Event origin coords: (0,0,0)  
Can coords: (-117.2, .., ..)
- Detector centre: (0, 0 , 117.16)
- Event coordinates in Gandalf & MC truth coords are too far apart?

Extremely poor fit..

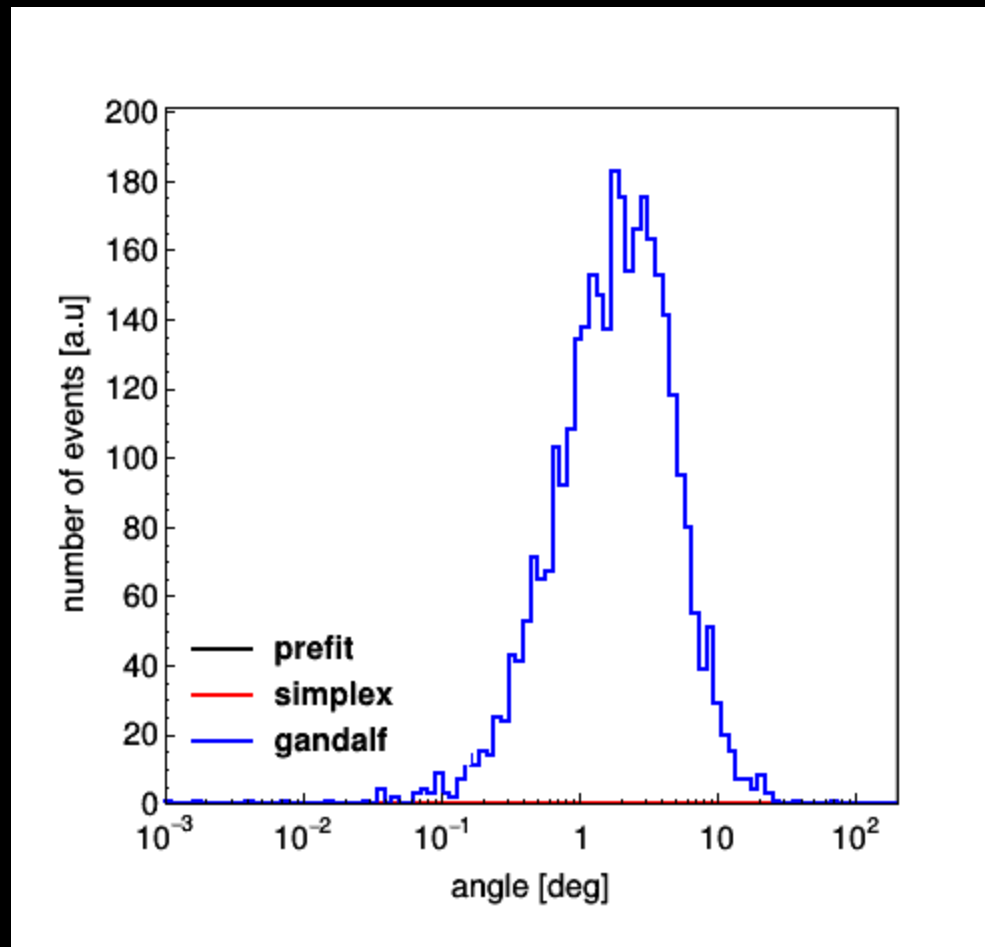


Angular difference

- Made the change by hand
- Maarten implementing coordinate change fix in Jpp.

- JMCEvt  $\rightarrow$  JGandalf:

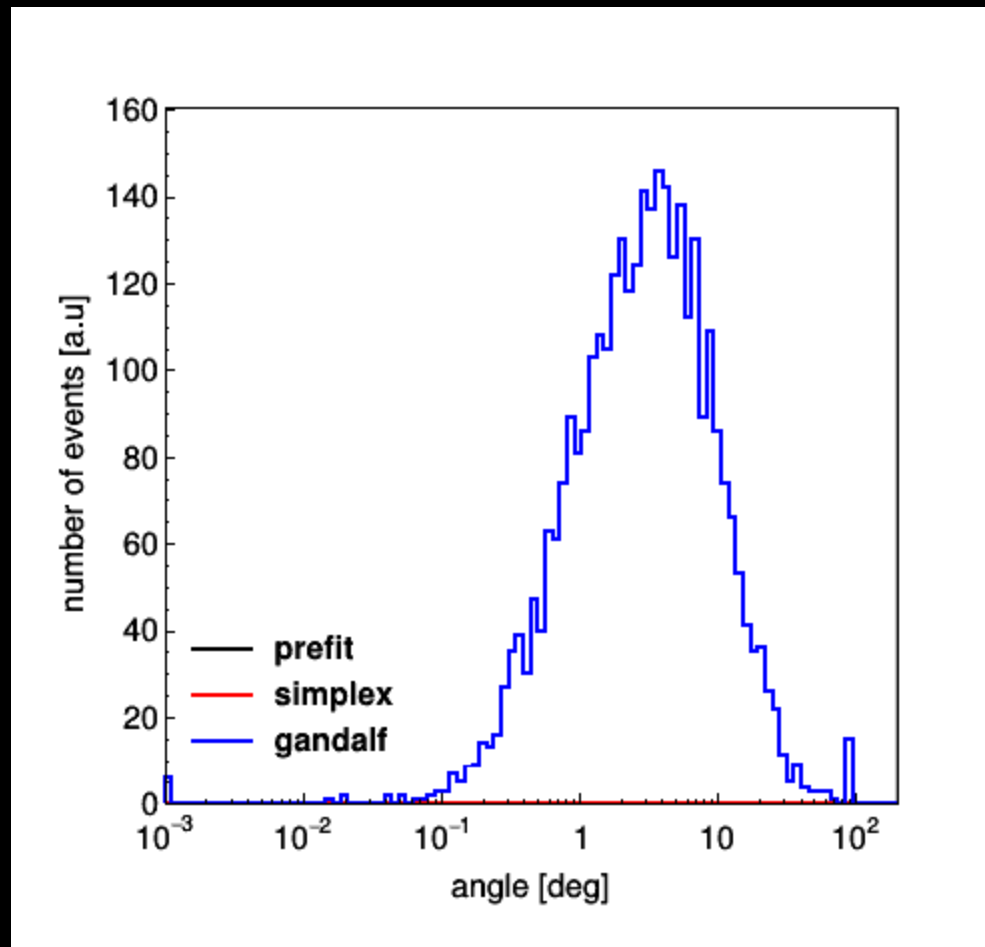
No events poorly reconstructed



Angular difference

- JMCEvt  $\rightarrow$  JMuonGandalf (with current default parameters):

Some events poorly reconstructed

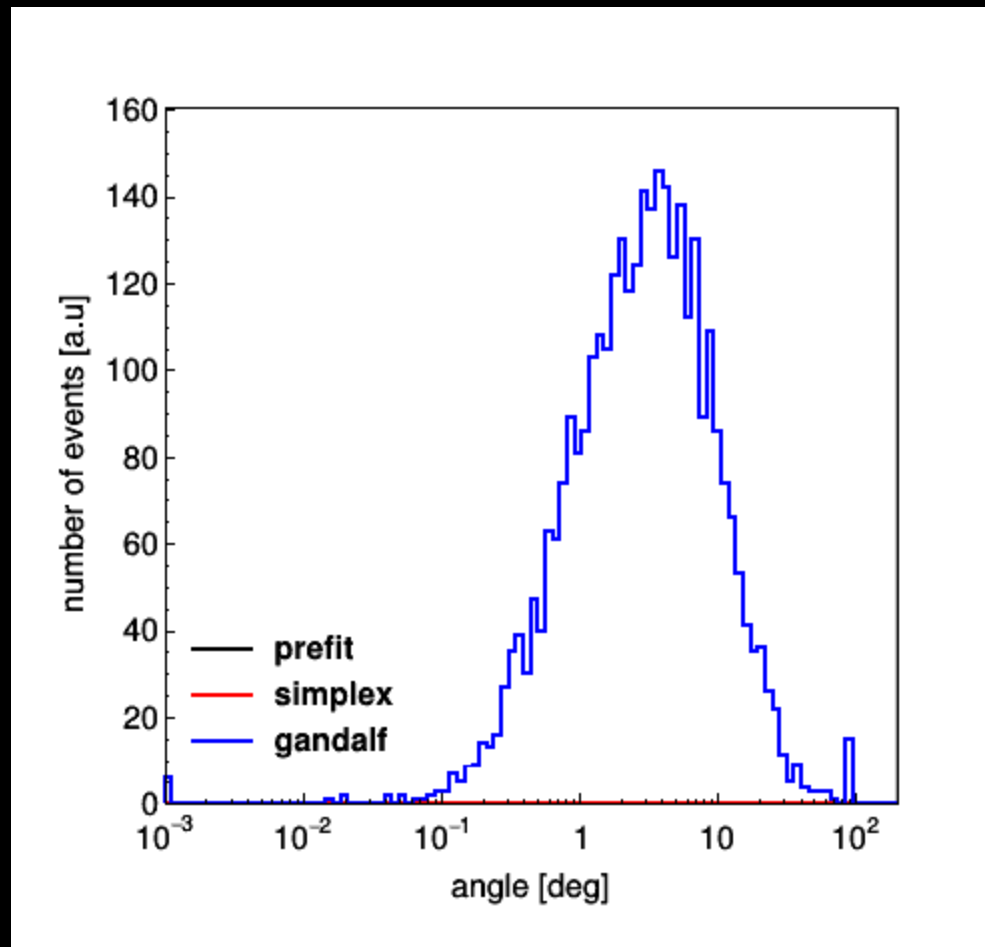


Angular difference



- JMCEvt  $\rightarrow$  JMuonGandalf (with current default parameters):
- Roadwidth = 50 m

Some events poorly reconstructed

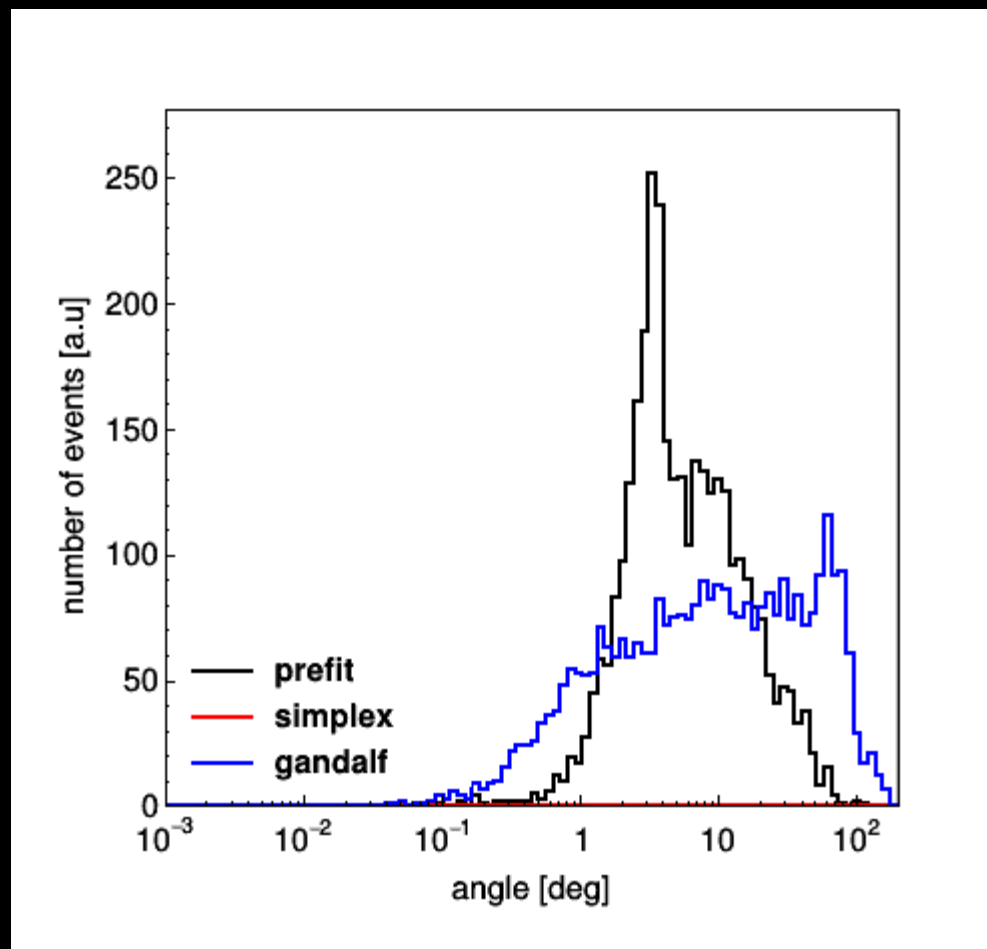


Angular difference

- By the way:

JPrefit → JGandalf fits look like this.

- JPrefit, JGandalf show fit with highest q parameter.



Angular difference