

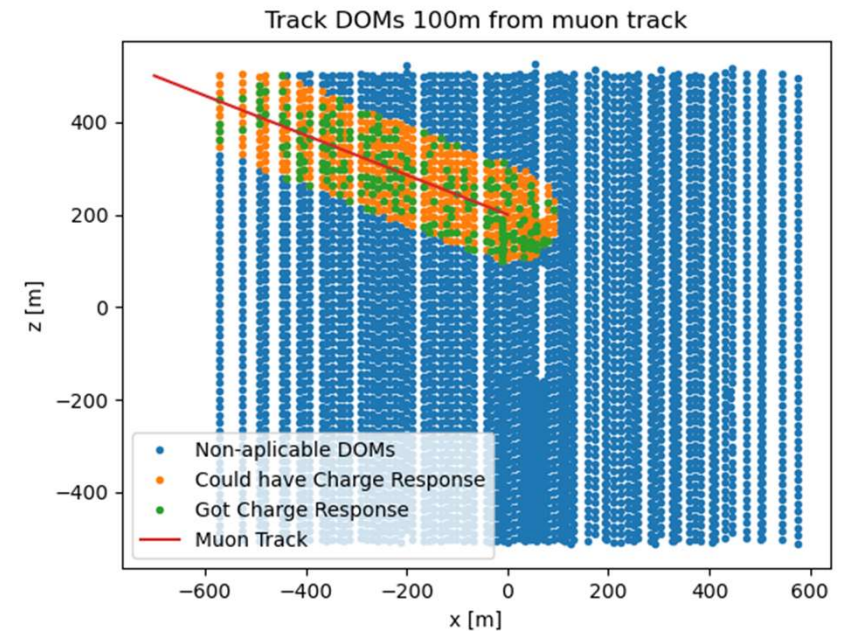
RIDE Update – 09/04/2021

Sofus Stray

Weekly NBI Meeting

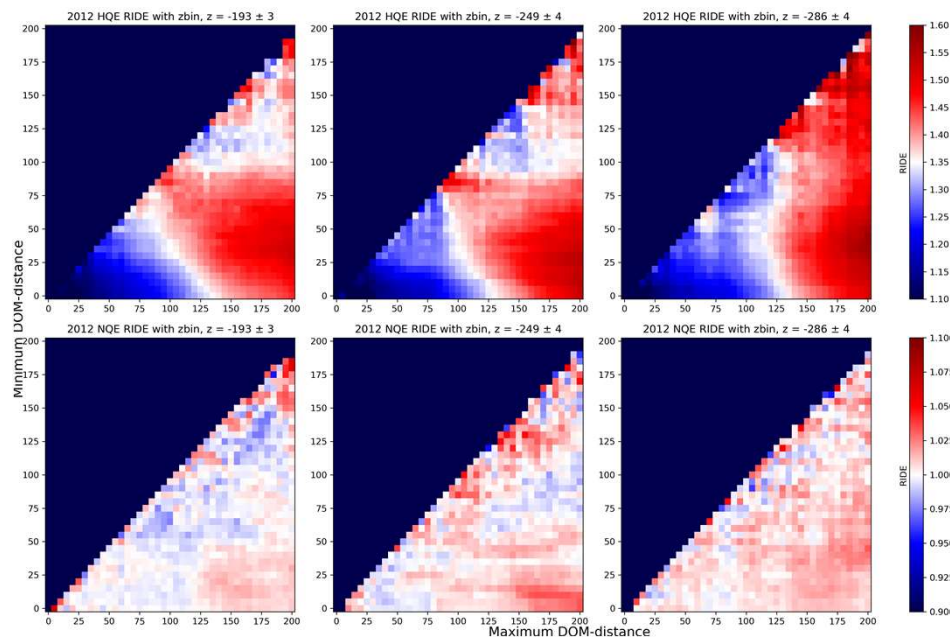
Refresher

- Group Analysis
 - Scan over zenith angle and distance from DOM to track
 - See which combination provides $RIDE = 1.35$
- TCN
 - Neural Network
 - Try to predict if a muon stops inside detector

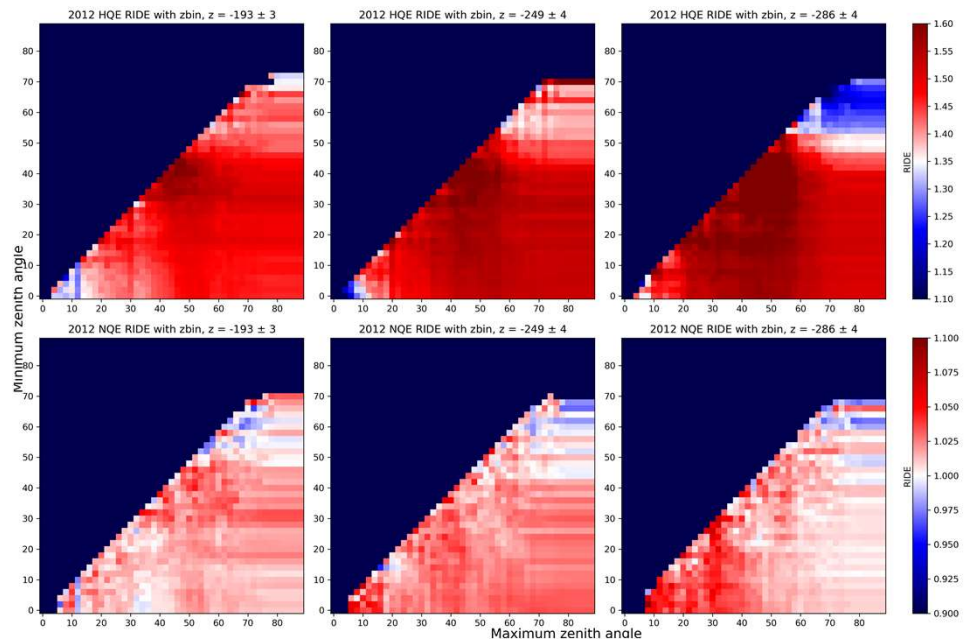


Current group analysis (2012)

DOM-distance scan (full zenith range)



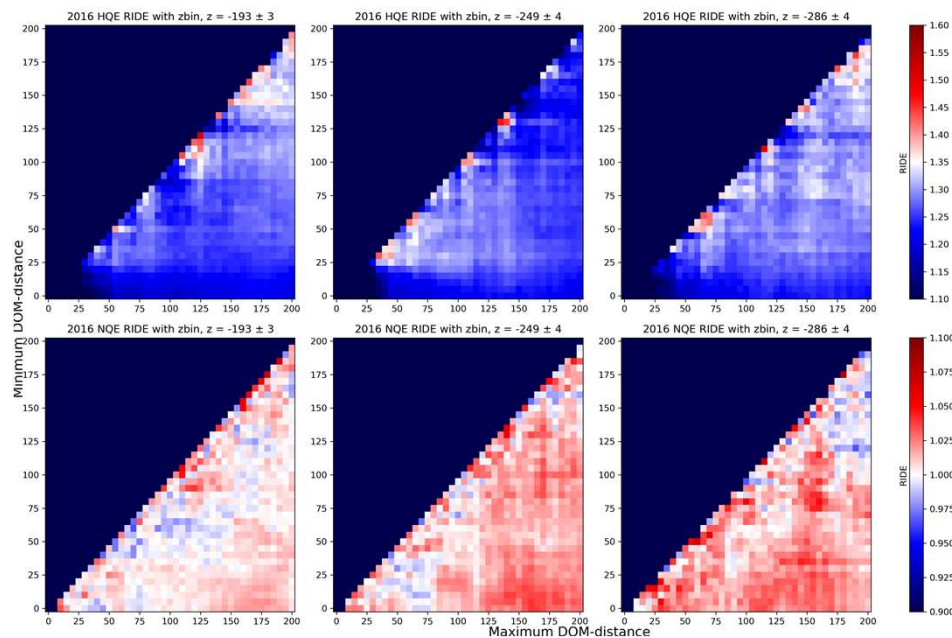
Zenith-angle scan (DOM-distance = [0,200])



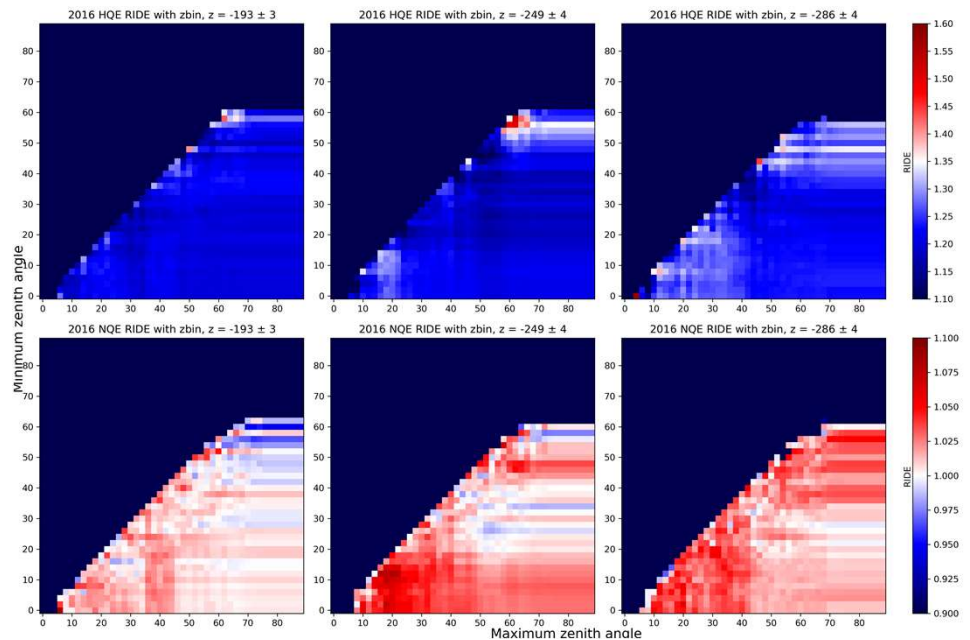
- Very clear point of interest in DOM-scan
- No reason to do any zenith cuts based on data
- NQE values very noisy but within $\sim 5\%$ error

Current group analysis (2016)

DOM-distance scan (full zenith range)



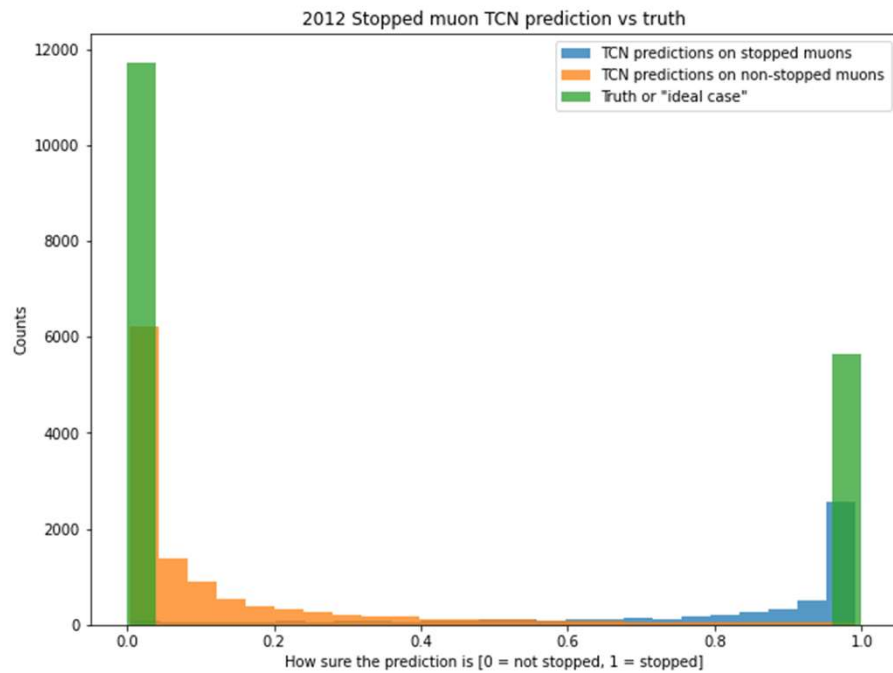
Zenith-angle scan (DOM-distance = [0,200])



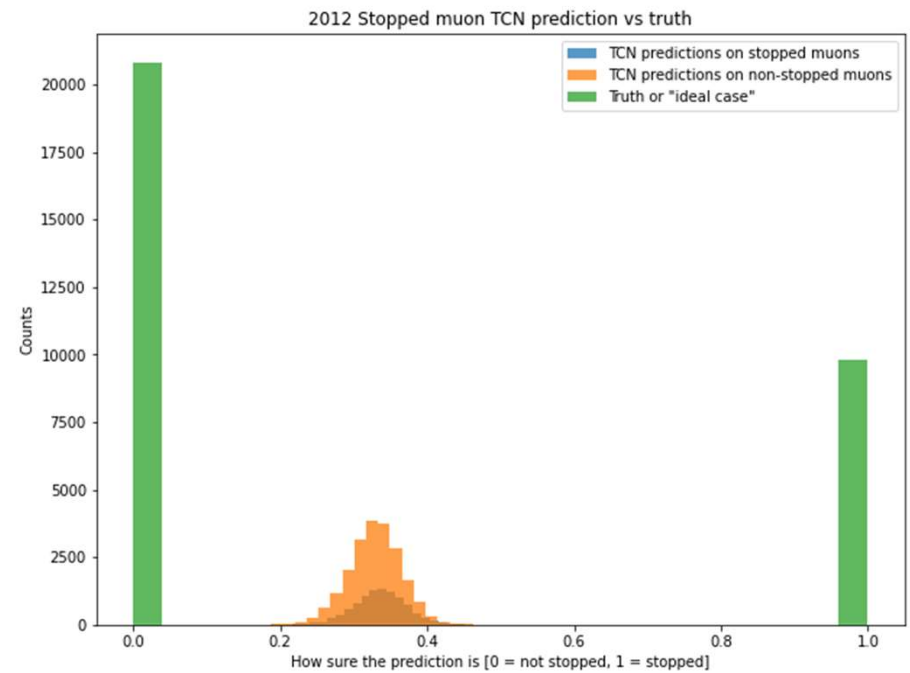
- No longer any clear DOM-distance RIDE = 1.35 line
 - Possible ~ 1.30 near $[30, 125]$ m
 - Zenith cut predictions similar

TCN Update

2012 😊

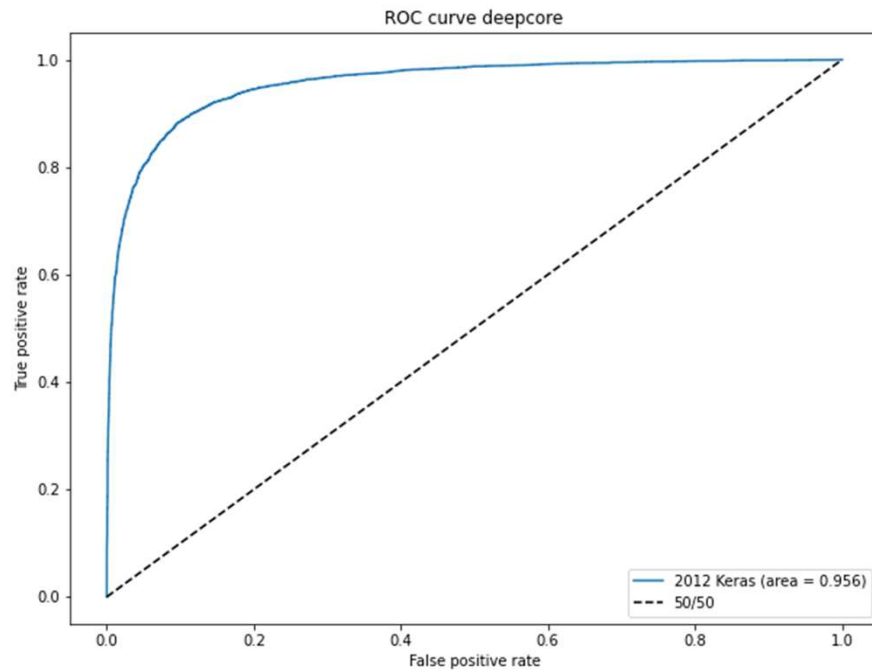


2016 😞

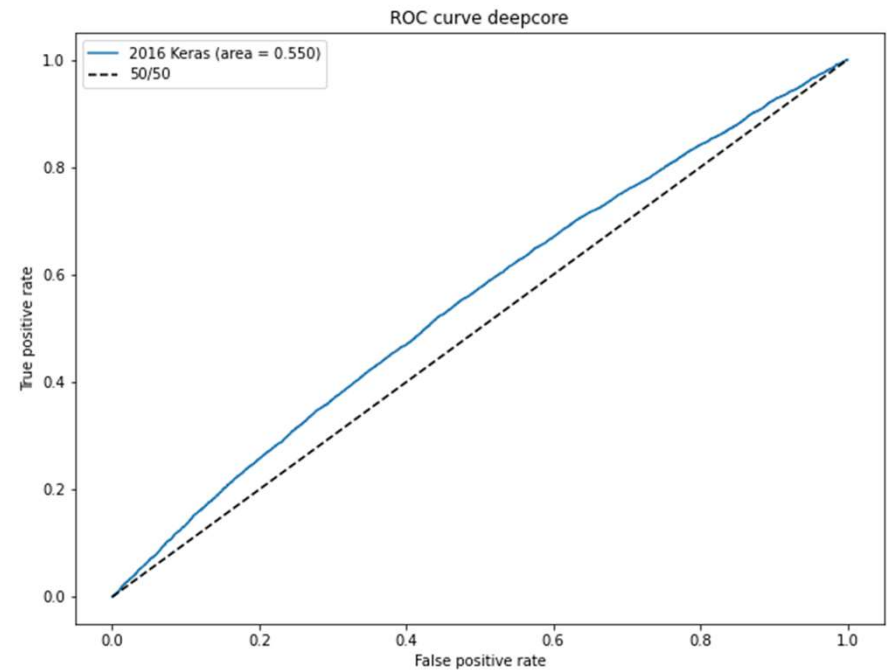


TCN Update

2012 😊



2016 😞



Summary & Next steps

- As mentioned earlier, stop chasing 1.35 for 2016
- TCN currently at standstill