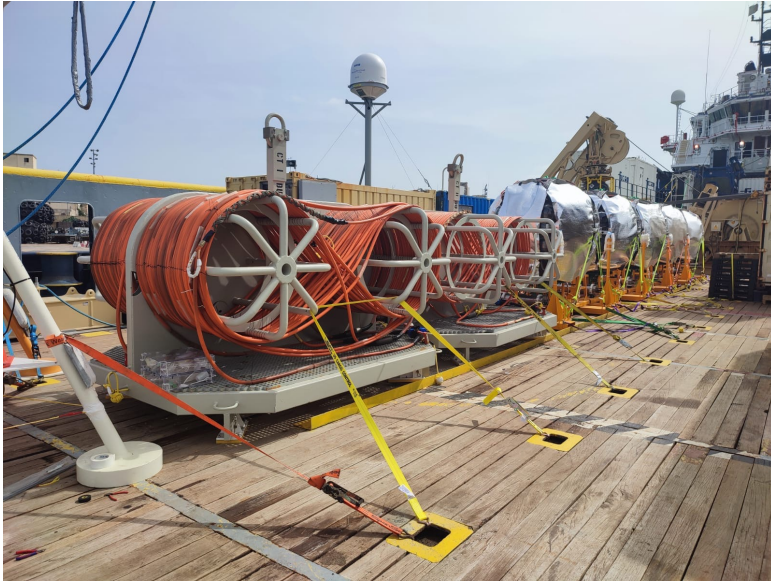


Neutrinos

KM3NeT/ORCA: operational with 6 DUs since >1 year, 7 more DUs ready for deployment (November?)
(deployment needs triple coincidence: 2 boats available, permits, weather)

KM3NeT/ARCA: sea operation September 2021:



Deployment of two tripods with acoustic beacons (position reconstruction)
Laying interlink cables, deployment of DUs
Edward Berbee on boat, Rasa Muller on-shore

Now taking data with 8 DUs
9th DU is deployed, but not connected.

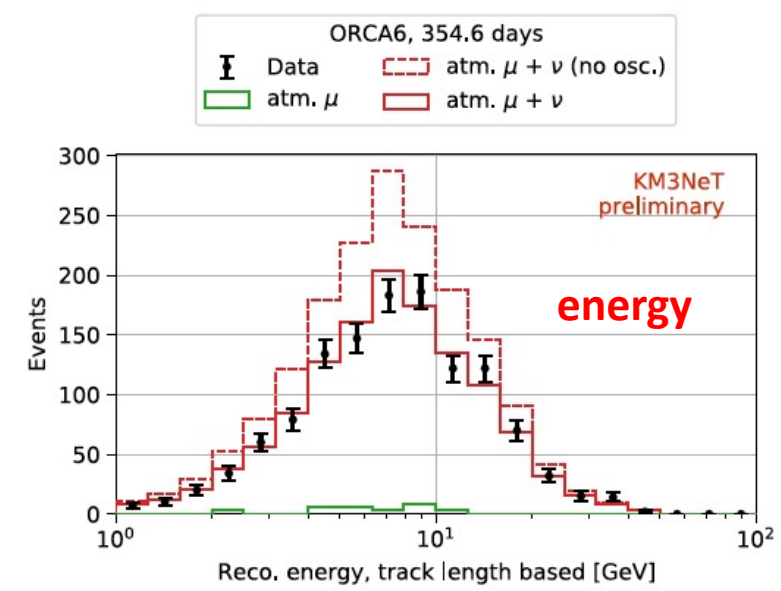
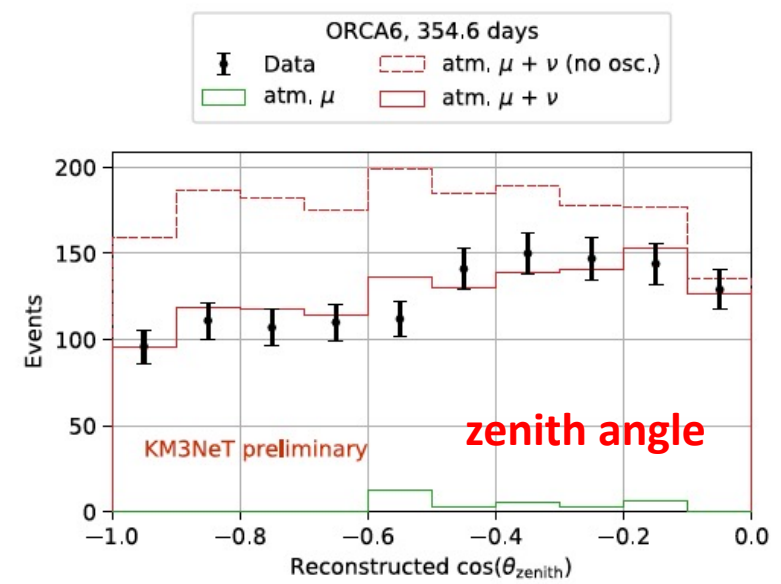
May 2022: new junction box, at least 9 more DUs to be deployed

PhD defenses: Milo Vermeulen (DUNE) 9/11
Karel Melis (KM3NeT) 10/11

New PhD since May: Clara Gatus (KM3NeT)
since August: Vikas Gupta (DUNE)
Postdoc since June : Alba Domi (KM3NeT)



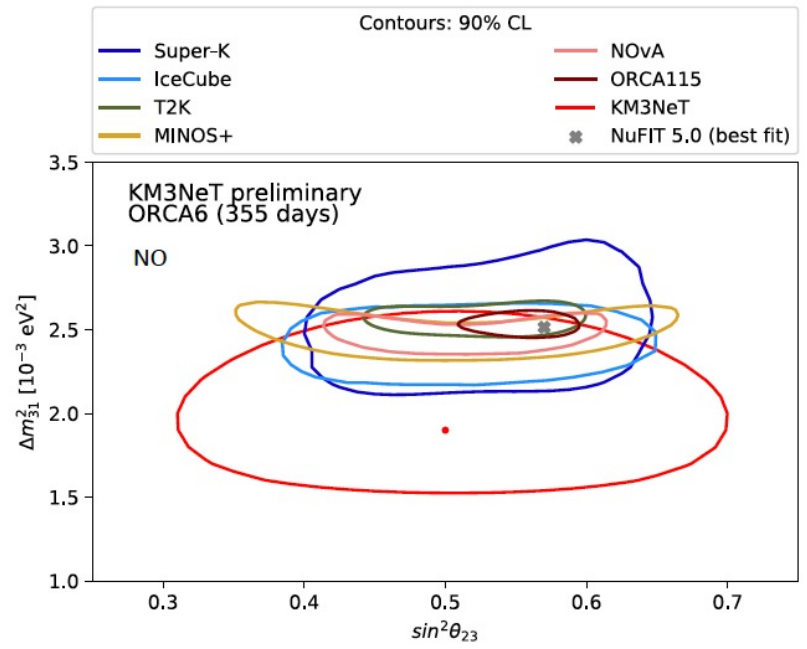
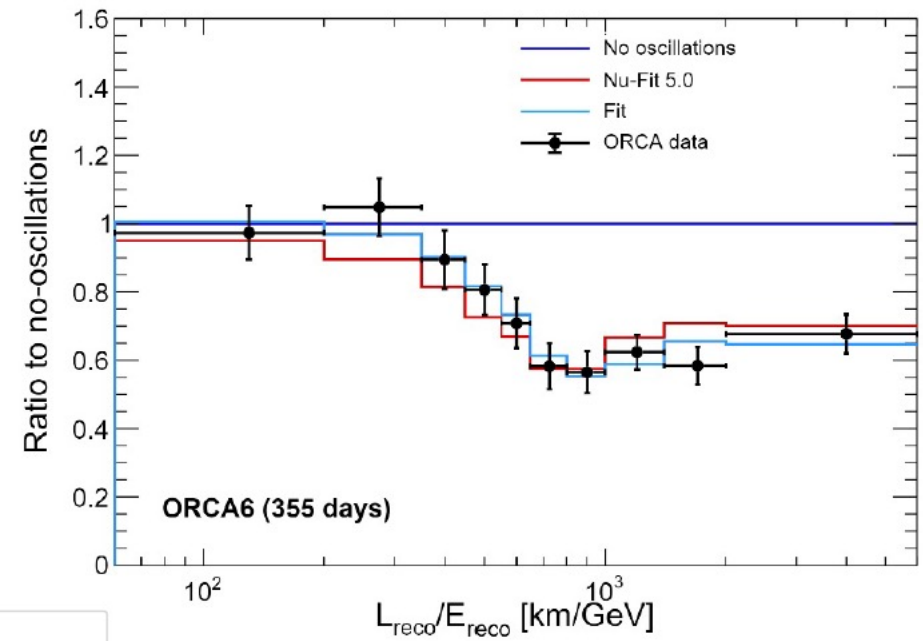
Observation of oscillations of atmospheric neutrinos with one year of data from six ORCA DUs



Reconstructed tracks:
mostly sensitive to ν_μ

Amplitude sensitive to θ_{23}

Position of minimum
sensitive to Δm_{31}^2



Already better than 11 years ANTARES

3 years of data with ORCA-115
expected to be competitive
with T2K/NOvA

Still lots of work to do for neutrino
mass ordering...

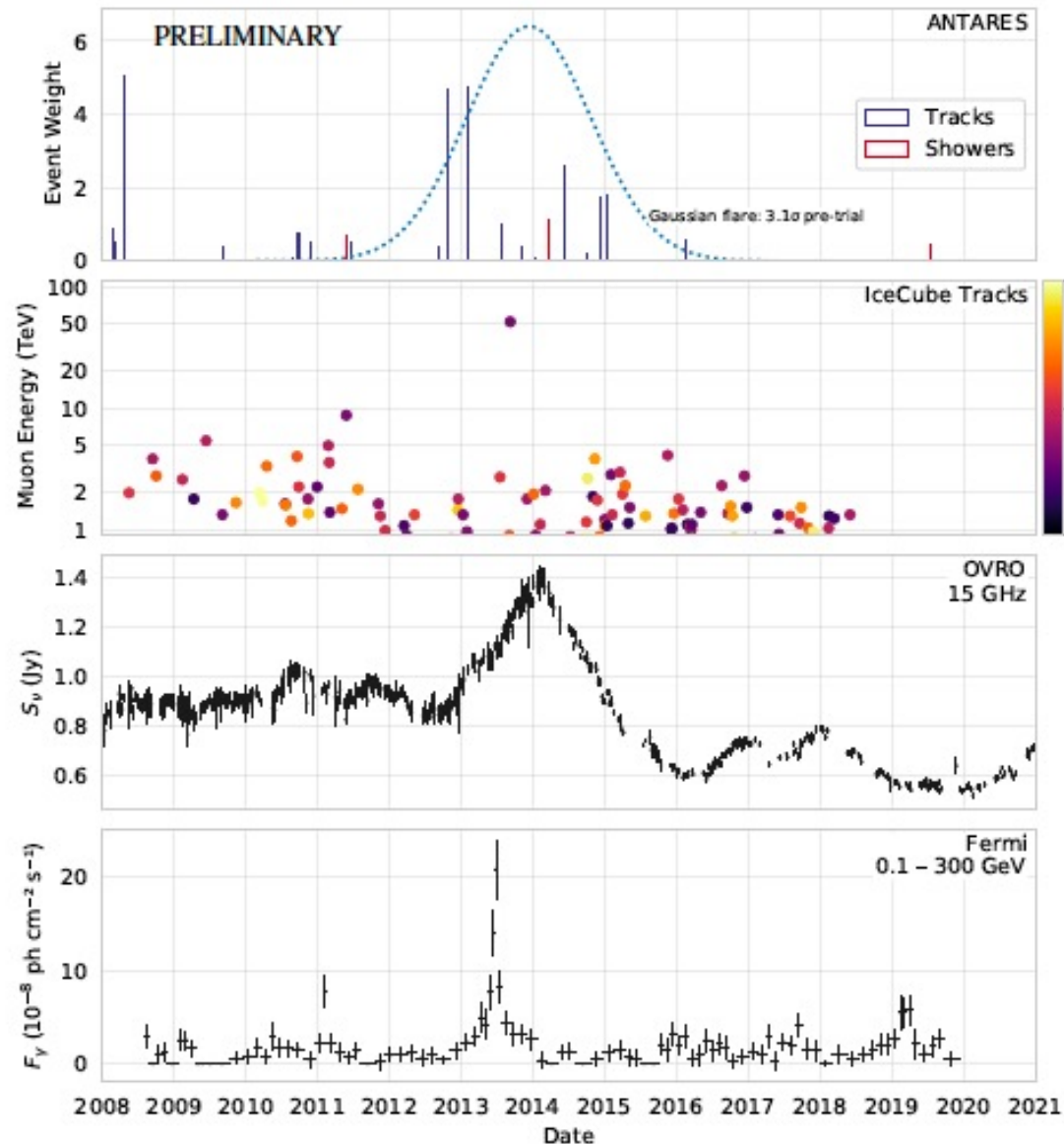
ANTARES

Presented earlier:
possible correlation
of ANTARES events with
radio blazars.

Here: search for neutrino
flares from radio blazars with
13 years of ANTARES data.

A few interesting candidates,
but post-trial p-values modest.

One source (J0242+1101)
interesting due to time
correlations with IceCube,
radio and Fermi-LAT.



*ANTARES tracks/showers
close to J0242+1101*

*IceCube tracks close to
J0242+1101*

Radio signal J0242+1101

Fermi-LAT data J0242+1101