



Institut
Physique de
l'Univers

Aix*Marseille Université

LAM neutrino activities/interests

IPhU neutrino day

29 june 2021



Neutrino astronomy :

S. Basa, E.Nezri

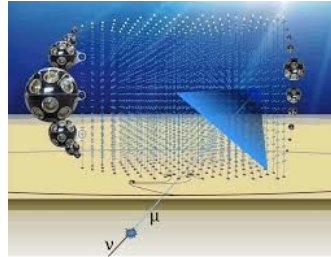
ANTARES : Members of the collaboration (Former members M.Marcellin, P.Amram)

KM3NeT : Observers. Ticket for full membership. No agreement between IN2P3 and INSU → IPHu ?

Science:

- multi messenger astronomy

- gamma ray burst

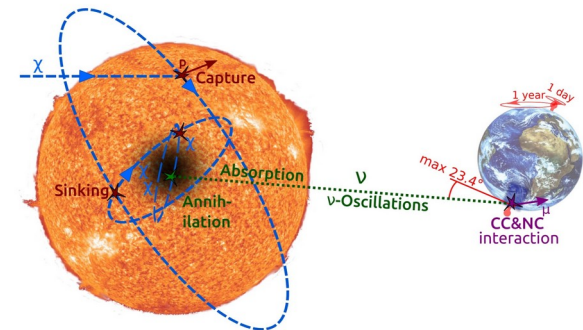
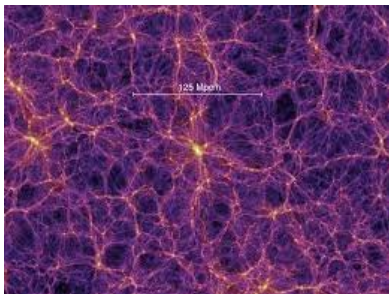


- dark matter indirect detection with neutrinos, signal calculations:

HEP: BSM models

ASTRO: Earth, Sun, Galactic center/halo, Dwarf spheroidal galaxies

Diffuse emission



Past activities, interests, projects

Neutrino phenomenology

- *Mass models, oscillations*
- *Leptogenesis*
- *RH Neutrino dark matter*

Neutrinos and Cosmology

C.Schimd, E.Jullo, E.Nezri

- *The sum of neutrino masses* $\sum m_\nu$

Some people at LAM in DESI collaboration but not working on this aspect (yet ?).

- *Large Scale Structures and cosmological simulations including neutrinos*