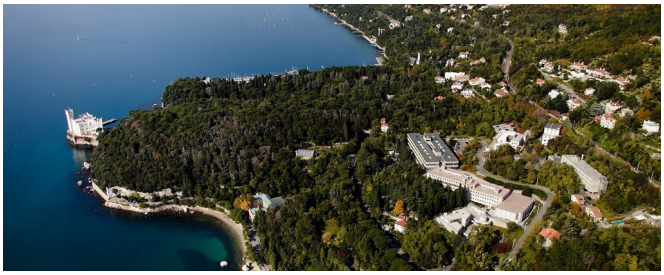

Contribution ID: **45** Type: **not specified**

f(Q)-gravity and neutrino physics

Tuesday 29 August 2023 21:40 (5 minutes)

Within the f(Q)-gravity framework, we perform a phenomenological study of the cosmological observables in light of the degeneracy between neutrinos physics and the modified gravity parameter, and we identify specific patterns which allow us to break such degeneracy. We also provide separately the constraints on the total mass of the neutrinos, Σm_ν, and on the effective number of neutrino species, Neff, using cosmic microwave background (CMB), baryon acoustic oscillation (BAO), redshift space distortion (RSD), supernovae (SNIa), galaxy clustering (GC) and weak gravitational lensing (WL) measurements. We find that all combinations of data we consider prefer a stronger gravitational interaction than LCDM. Finally, we consider the chi-square and deviance information criterion statistics and find the f(Q) + Σm_ν model to be statistically supported by data over the standard scenario. On the contrary, f(Q) + Neff is supported by CMB+BAO+RSD+SNIa but a moderate evidence against it is found with GC and WL data.

Presenter: ATAYDE, Luis

Session Classification: Posters of tuesday (ignore time)