Contribution ID: **18** Type: **not specified**

Searches for Inflationary Gravitational Waves in the NANOGrav 15 yr data-set

In this talk, I will summarize some of our efforts to interpret the GWB-like signal observed by the NANOGrav collaboration as inflationary gravitational waves, by sampling reheating temperature, tensor spectral index, and the running of the tensor spectral index. I will show that there is available parameter space to describe the signal, even if we impose constraints from CMB, LVK, and do not overabound the effective number of neutrino species. Two scenarios are possible: i) one in which a very late reheating period takes place, falling into the NANOGrav band, or ii) one with a more conventional large reheating temperature with a non-vanishing running of the tensor spectral index.

Primary author: LINO DOS SANTOS, Rafael Robson (NCBJ, Warsaw)