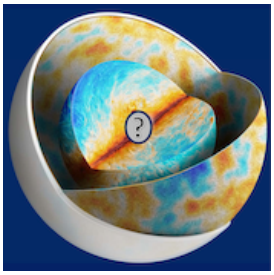

ID de Contribution: **20** Type: **Non spécifié**

Tensor-to-scalar ratio and beyond with CMB and gravitational waves

lundi 4 décembre 2023 10:50 (20 minutes)

In my recent publication (arXiv:2208.00188), I adopted a comprehensive approach to refine the constraints on the tensor-to-scalar ratio (r) and the tensor spectral index (n_t). This involved utilizing data from 10 datasets, including those from the BICEP/Keck Array 2015 and 2018, Planck releases 3 and 4, and the LIGO-Virgo-KAGRA collaboration. During this presentation, I will walk through the two distinct approaches I employed to probe the tensor sector, determining the most reliable method. Moreover, I will present the results of this work, which establish the strongest constraint on the tensor-to-scalar ratio in the current literature: $r < 0.028$ and $-1.37 < n_t < 0.42$ at a 95% confidence level. Additionally, I will share some insight into my ongoing efforts to enhance this analysis within the tensor sector of parameter space.

Author: GALLONI, Giacomo (University of Rome Tor Vergata)

Orateur: GALLONI, Giacomo (University of Rome Tor Vergata)

Classification de Session: Contributions