

From the LISA Data Challenges towards a LISA Global Fit algorithm

Tuesday, 15 October 2024 18:30 (20)

LISA will be the first space-based gravitational-wave and will operate in the milli-Hertz frequency band, with is rich in different astrophysical and cosmological sources. LISA is a signal-dominated detector which means that the data stream always contains overlapping sources, among them millions of galactic ultracompact binaries. In order to detect and estimate the physical parameters of these sources it is then necessary to use a “global fit” algorithm that can avoid biases due to single source detection and parameter estimation. In this talk I will describe the efforts at the ICE in the context of the LISA data challenges and the Data Distributed processing center.

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Session Classification : Contributed Talks