Gravitational waves











Motivation

Primordial black holes (PBHs) could have formed from the gravitational collapse of over-densities in the early Universe.

Black holes could form directly from the collapse of particle dark matter in certain dissipative dark matter models

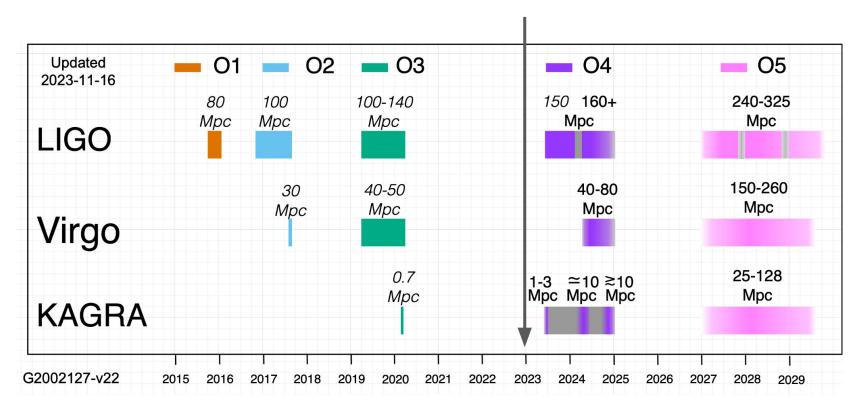
The detection of sub solar mass black holes will open a window to these (and other) possible phenomena.

Right now it is at the limit of the sensibility of current generation of interferometers





Time Frame







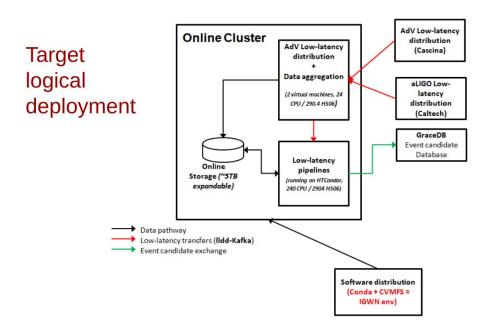


Past and current activities

Analysis

UNIVERSIDAD COMPLUTENSE DE MADRID FACULTAD DE CIENCIAS FÍSICAS Máster en Física Teórica TRABAJO DE FIN DE MÁSTER Introducción de Inteligencia Artificial en ciencia de ondas gravitacionales a través de Virgo Introducing Artificial Intelligence in gravitational wave science with Virgo Daniel Beltrán Martínez

Low latency pipeline









Activities

Upgrade of laser input mode cleaner

