



Contribution ID: 528

Type: **Talk in a parallel session**

Using mHz gravitational waves to catch galactic center mergers of supermassive dark matter cores

Friday, 12 July 2024 17:40 (20 minutes)

There is an open debate about whether some galactic centers (including Sgr A*) could actually be supermassive dark matter cores made of fermions with masses in the range of 60-350 keV. We discuss the possibility of pinpointing mergers of such cores using mHz gravitational waves with the forthcoming space-based interferometers and assess the consequences of the possible outcomes from the physical and astrophysical viewpoint.

Primary authors: ARGÜELLES, Carlos Raúl (La Plata National University & ICRANet); RUEDA HERNANDEZ, Jorge Armando (ICRANet); RODRIGUEZ RUIZ, Jose Fernando (Universidad Industrial de Santander); RUFFINI, Remo (ICRANet, ICRA, INAF)

Presenter: RUEDA HERNANDEZ, Jorge Armando (ICRANet)

Session Classification: Low frequency gravitational waves: sciences and detections

Track Classification: Gravitational Waves (GW): Low frequency gravitational waves: sciences and detections