

Progetto	Search for gravitational-wave signals associated with multi-wavelengths bursts during the observing runs of Advanced LIGO and Advanced Virgo
Esperimento / sigla proponente	Virgo
Laboratorio ospitante	LNS
Contact person presso il laboratorio	Dr.ssa Iara Tosta e Melo itostaemelo@uniss.it , Prof. D. D'Urso ddurso@uniss.it
Periodo Previsto	Maggio-novembre 2022
Sezioni e tutor proponenti	LNS Prof. D. D'Urso, Dr.ssa Iara Tosta e Melo
Descrizione attività	Observation of astrophysical sources via non-electromagnetic messengers has presented enormous challenges (high-energy neutrinos, ultra-high energy cosmic rays, and gravitational waves). Such a breakthrough made multi-messenger astronomy an extension to traditional and multi-wavelength astronomy. It has emerged as a distinct discipline providing unique and valuable insights into the properties and processes of the physical Universe. Several methods and strategies can be used, and two categories of network data analysis exist: coincidence or coherent filtering. We propose coherent filtering for the detection and reconstruction of GWs having electromagnetic (EM) counterparts within the LVK instruments' frequency band (The LIGO Scientific collab. et al. 2019).
Altre indicazioni	
Facility che il laboratorio ospitante mette a disposizione	
Note:	