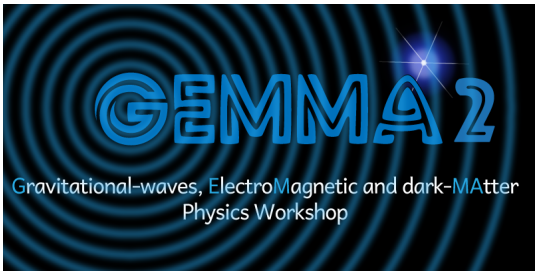

Contribution ID: **25** Type: **Invited Talk**

Joint analysis of electromagnetic and gravitational-wave data

Monday, 16 September 2024 16:15 (25 minutes)

On August 17, 2017, the first joint detection of gravitational waves (GWs) and electromagnetic (EM) waves from a binary neutron star (BNS) merger marked the beginning of multi-messenger astronomy with GWs and clearly demonstrated the huge informative power of joint EM and GW observations. In addition to BNS mergers, there is a wide range of highly energetic astrophysical sources expected to emit both GW and EM radiation, and in the future multi-messenger astronomy will be key to further probe the rich physics of transient phenomena in the Universe.
This talk will give an overview of the results of joint searches for GW and EM waves during past and current observing runs of Advanced LIGO, Advanced Virgo and KAGRA, and it will discuss the prospects and challenges for the upcoming years.

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Session Classification: MultiMessenger

Track Classification: MultiMessenger