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Outlook of the Mid-frequency GW Detection and AMIGO

Wednesday, 7 July 2021 06:30 (15 minutes)

The mid-frequency GW band (0.1-10 Hz) between LIGO-Virgo-KAGRA detection band and LISA-TAIJI-TIANQIN detection band is rich in GW sources. In addition to the intermediate BH (Black Hole) Binary coalescence (an event is detected by LIGO-Virgo collaboration recently), the inspiral phase of stellar-mass coalescence and GWs from compact binaries falling into intermediate BHs, it also enable us to study the compact object population, to test general relativity and beyond-the Standard-Model theories, to explore the stochastic GW background, and so on. In addition to DECIGO and BBO, the detection proposals under study includes AEDGE, AIGSO, AION, AMIGO, ELGAR, INO, MAGIS, MIGA, SOGRO, TOBA, ZAIGA, etc. After a brief review of these activities in general, we focus on the progress of the AMIGO mission study.

References

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