

# Detection of gravitational waves by electromagnetic cavity: a review

*Tuesday, 20 June 2023 16:00 (45 minutes)*

Gravitational wave (GW) detection using electromagnetic (EM) cavities has garnered significant attention in recent years. With ongoing experiments on axion detection using highly sensitive electromagnetic cavity, there is potential to apply these existing facilities to GW detection, opening up a new channel of GW observation. In this review, we comprehensively examine the principles of GW detection using EM cavities within the framework of general relativity. We expect that it not only provides analysis of existing EM cavity experiments and but also offers insights for the design of new ones.

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