

Gravitational Waves from Domain Wall Dynamics

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Domain walls are topological defects that arise whenever a discrete symmetry is spontaneously broken. Being motivated in several Beyond the Standard Model scenarios, including axion-like particle models, domain walls are viable sources of a stochastic gravitational wave background with a broken power-law spectrum that could be detected by the near and far future third generation interferometers. In this talk, I will review the basic theoretical motivations and observational prospects for domain walls in gravitational wave experiments, including updated prospects for the ET sensitivities. I will also emphasise the importance of friction from particles in the surrounding plasma scattering against domain walls, which could affect the resulting gravitational wave emission.

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