

Gravitational waves from early universe first order phase transitions

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While cooling down, the early universe is believed to have witnessed symmetry breaking phase transitions. With the increasing need to look at beyond the Standard Model theories, one particularly attractive possibility is extending the Standard Model such that phase transitions are of the first order. Not only could they explain e.g. the baryon asymmetry, they are also expected to produce gravitational waves. Were the future detectors to give us evidence of a first order phase transition, it would be a sign of new physics. In this talk I will discuss the process of early universe phase transitions concentrating on the details of the field evolution and the effects they have on the gravitational wave spectrum.

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