

## Simulating a first-order electroweak phase transition

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In various extensions of the Standard Model it is possible that the electroweak phase transition was first order. This would have been a violent process, involving the formation of bubbles and associated shock waves. The collision of these bubbles and shock waves could be a detectable source of gravitational waves. I will summarise the current status of efforts to model the such a phase transition based on large-scale hydrodynamical simulations. From the nucleation of bubbles through to the onset of turbulence, I will discuss the processes involved, the dependence upon particular models, and the implications for detectability of the resulting gravitational wave power spectrum.

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