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## Dynamics of thermal bubble nucleation

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First-order phase transitions proceed via bubble nucleation. This is true regardless of whether the transition is happening in your kettle or on a cosmological scale in the very early universe. The rate of bubble nucleation determines many gross features of cosmological phase transitions, including the peak frequency of the resulting gravitational wave signal. At high temperatures, the rate factorises into a product of statistical and dynamical parts, the latter of which is much less well understood. I will discuss recent works suggesting that our best estimates for the dynamical part are far off the mark, and avenues of progress.

**Presenter:** GOULD, Oliver