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Fine-tuning of the Higgs parameter in the thermal evolution of the universe

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The electroweak hierarchy problem is often a source of controversy –do we need to care about the Higgs curvature parameter μ^2 being tuned to a small value, against quantum field theoretical expectation?
We explore the possibility that μ^2 is initially large –as expected when introducing physics beyond the standard model –and is dynamically tuned to its current value at zero temperature, e.g. by the presence of another large vacuum expectation value (vev). Since the Higgs mass parameter then varies over the evolution of the universe, one may run into cases of super high scale electroweak symmetry breaking, yielding a large Higgs vev and thereby very massive SM particles.
Although such a scenario does not solve the hierarchy problem, it could have interesting cosmological impacts, including but not limited to gravitational waves from the transition in the scalar potential and it could give an insight on the nature of the hierarchy problem.
If the system can be kept in a large Higgs vev phase until very late times, this would even lead to a first order QCD deconfinement phase transition, since QCD can be described as a pure gauge theory in the limit of decoupling quarks.

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