

Institut Ruđer Bošković
ZAVOD ZA TEORIJSKU FIZIKU
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ZAGREB, HRVATSKA

SEMINAR ZAVODA ZA TEORIJSKU FIZIKU
(Zajednički seminari Zavoda za teorijsku fiziku,
Zavoda za eksperimentalnu fiziku i Zavoda za teorijsku fiziku PMF-a)

Symmetry breaking in de Sitter space

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Mjesto: IRB, predavonica I krila

Sažetak:

We consider an $O(N)$ symmetric scalar field model in the mean field approximation and show that the symmetry can be broken (down to $O(N-1)$) in de Sitter space. We find that the phase transition is of a first order, and that its strength depends non-analytically on the parameters of the model. We also show that the would-be Goldstone bosons acquire a mass, effectively becoming pseudo-Goldstone bosons. Our results imply that topological defects can form during inflation.

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