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Ms. DEMOZZI, Vittoria (LMU Munich): Non-Gaussianity in the curvaton landscape

Friday, 17 September 2010 16:30 (15 minutes)

We consider the curvaton scenario applied not only to the observable patch of the
Universe, but to the entire Universe. On the scales of the entire Universe the
homogeneous component of the curvaton field σ_0 is a random value with a probability distribution that we can compute. The entire Universe is pictured as a "curvaton landscape". We show that the non-linearity parameter f_{NL} is
different in different regions of the Universe depending on the distribution of
σ_0.
We can then calculate the probability distribution of the f_{NL} parameter for the
entire Universe. This has implications for the probability of observing
non-Gaussianity within our patch in the curvaton scenario.

Session Classification: 6 talks (Chair: Konstantinos DIMOPOULOS)