

Baryon Charge Condensate Baryogenesis

We present successful baryogenesis models in the framework of the scalar condensate baryogenesis scenario compatible with inflation.

We have numerically followed the evolution of the baryon charge carrying field and the baryon charge of the Universe from the inflationary stage till the baryon asymmetry formation.

It is known that particle creation processes play an essential role for baryogenesis and reheating.

We illustrate the importance of the account of particle creation processes for the correct determination of the value of the baryon asymmetry, generated in these baryogenesis models.

The scenario is applicable also to inhomogeneous baryogenesis models, predicting cosmologically significant regions of antimatter in the Universe.

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