

## **THE ROLE OF PARTICLE CREATION PROCESSES IN SCALAR CONDENSATE BARYOGENESIS MODEL**

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We discuss a scalar field baryogenesis model with generated at inflation complex scalar field  $\phi$ , carrying baryon charge  $B \neq 0$ . We follow the evolution of  $\phi$  accounting for particle creation processes in qualitative and quantitative way.

It was shown that the numerical account for particle creation processes gives different results for  $B$  evolution and final value of  $B$  after the  $\phi$  decay, than the analytical method. Therefore, the numerical approach is necessary for more reliable calculation of  $B$ , which determinates the observational baryon asymmetry.

Using the numerical account, we have calculated the baryon charge produced for different range of model parameters.