

# INFLATIONARY MODELS, REHEATING AND SCALAR FIELD CONDENSATE BARYOGENESIS

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We analyze the baryon asymmetry value obtained for 70 sets of parameters of the Scalar Field Condensate Baryogenesis (SFC) model in different inflationary scenarios and for different reheating scenarios. We have found sets of SFC model's parameters, for which the observed value of the baryon asymmetry of the Universe can be successfully generated in the following inflationary scenarios: modified Starobinsky inflation, quintessential Inflation, chaotic inflation in SUGRA and chaotic inflation in case of delayed thermalization. Interestingly enough these inflationary models are among the observationally preferred by latest Planck data. On the contrary new inflation, Shafi-Vilenkin chaotic inflation and MSSM inflation lead to baryon asymmetry generation by several orders of magnitude higher than the observed one.

Preliminary results on these issues were presented in (Kirilova, Panayotova 2019).

## References

Kirilova, D., Panayotova M.: 2019, *AIP Conf. Proceedings, Conference: 10th Jubilee International Conference of the Balkan Physical Union*, **2075**, 090017.