

# Separated matter and antimatter domains with vanishing domain walls

Alexander Rudenko  
Laboratory of Cosmology and Elementary Particle Physics  
Novosibirsk State University  
Russia

We present a model of spontaneous (or dynamical) C and CP violation where it is possible to generate domains of matter and antimatter separated by cosmologically large distances. Such C ( CP ) violation existed only in the early universe and later it disappeared with the only trace of generated baryonic and/or antibaryonic domains. So the problem of domain walls in this model does not exist. These features are achieved through a postulated form of interaction between inflaton and a new scalar field, realizing short time C ( CP ) violation.