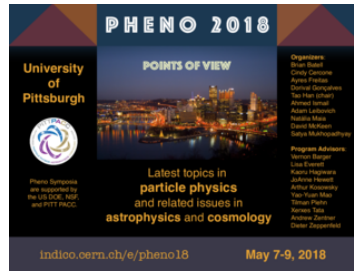Contribution ID: **611**   Type: **parallel talk**

Electroweak Sphaleron with dimension-six operators

Tuesday 8 May 2018 15:15 (15 minutes)

In this talk, we will discuss how the dimension-six operators change the rate of baryon number violation rate via sphaleron transition. Applying Newton-Kantorovich method, we solve related nonlinear sphaleron equations numerically. Depending on the sign of the coefficients of the dimension-six operators, the sphaleron energy will increases or decreases. Since the coefficient of these dimension-six operators are already constrained by electroweak precision measurement, we can show that they can change the energy of sphaleron energy by a few percent, which doesn't deviate much from the sphaleron energy of standard model.

Summary

Authors: GAN, Xucheng (University of Chicago); LONG, Andrew (University of Chicago); WANG, LianTao (University of Chicago)

Presenter: GAN, Xucheng (University of Chicago)

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