## 54th Schladming Winter School of Theoretical Physics



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## Ramírez Rodríguez – Do current data prefer a nonminimally coupled inflaton?

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Inflation provides the most theoretically attractive and observationally successful cosmological scenario able to generate the initial conditions of our universe. From the theoretical viewpoint, this picture is usually understood as the dynamics of a single new scalar degree of freedom, the inflaton, minimally coupled to gravity. However, generally the inflaton is expected to have a nonminimal coupling to the Ricci scalar. While the minimally-coupled version of the chaotic model of inflation is ruled out at more than 99% confidence level (for 50 e-folds of inflation), in this talk we will see that the presence of such coupling, for the chaotic model, is highly favoured with respect to the latest analysis of Planck and BICEP2.

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