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A new formalism for scalar-tensor theories of gravity and its applicability

Tuesday, 26 July 2016 12:00 (15 minutes)

Summary

In this talk, I will present a new formalism for describing general scalar-tensor theories of gravity based on the language of differential forms. I will show how, thanks to this novel approach, the construction of viable theories in arbitrary number of dimensions becomes both simpler and more systematic. In four dimensions, our results can be associated with Horndeski's theory. Afterwards, I will discuss the potential applications of this new description, focusing on the role of field redefinitions in scalar-tensor theories.

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Primary author: EZQUIAGA, Jose María (Instituto de Física Teórica UAM-CSIC)

Co-authors: GARCIA-BELLIDO, Juan; ZUMALACÁRREGUI, Miguel (Nordita)

Presenter: EZQUIAGA, Jose María (Instituto de Física Teórica UAM-CSIC)

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