

## Late-time cosmology in a model of modified gravity with an exponential function of the curvature

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An analysis of the late-time evolution of the Universe for an  $f(R)$ -gravity model built from an exponential function of the scalar curvature is presented. The corresponding field equations, written in terms of a suited statefinder function are solved numerically, allowing to study the evolution of interesting cosmological parameters, which present values (at  $z = 0$ ), are shown to be compatible with Planck 2018 observations and the  $\Lambda$ CDM-model values. Finally, considering updated measurements from the dynamics of the expansion of the Universe,  $H(z)$ , we perform a statistical analysis to constrain the free parameters of the model, finding a particular set of values that fit the data well and predict acceptable values for the cosmological and statefinder parameters at present time. We conclude that this  $f(R)$ -gravity model is consistent with the considered observational data, and a viable alternative to explain the late-time acceleration of the Universe.

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