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# Global stability analysis for cosmological models with nonminimally coupled scalar fields

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## Abstract

© 2014 American Physical Society. We explore dynamics of cosmological models with a nonminimally coupled scalar field evolving on a spatially flat Friedmann-Lemaître-Roberts-n-Walker background. We consider cosmological models including the Hilbert-Einstein curvature term and the  $N$  degree monomial of the scalar field nonminimally coupled to gravity. The potential of the scalar field is the  $n$  degree monomial or polynomial. We describe several qualitatively different types of dynamics depending on values of power indices  $N$  and  $n$ . We identify that three main possible pictures correspond to  $n$