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Anisotropic solid dark energy

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In this paper, we study a triplet of inhomogeneous scalar fields, known as “solid”, as a source of anisotropic dark energy. By using a dynamical system approach, we find that anisotropic accelerated solutions can be realized as attractor points for suitable parameters of the model. We complement the dynamical analysis with a numerical solution whose initial conditions are set in the deep radiation epoch. The model predicts a spatial shear within the observational bounds nowadays, even when it is set to zero as an initial condition. The hairy attractors and an ultra slowly varying equation of state of dark energy close to -1 are key features of this scenario. We also analyzed the isotropic limit of the model, finding that the solid can be described by a constant equation of state and thus being able to simulate the behaviour of a cosmological constant.

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