

Two-field Cosmological alpha-attractors with Noether Symmetry

Tuesday, 25 June 2019 15:00 (15 minutes)

We study Noether symmetries in two-field cosmological alpha-attractors, investigating the case when the scalar manifold is an elementary hyperbolic surface. This encompasses and generalizes the case of the Poincare disk. We solve the conditions for the existence of a 'separated' Noether symmetry and find the form of the scalar potential compatible with such, for any elementary hyperbolic surface. For this class of symmetries, we find that the alpha-parameter must have a fixed value. Using those Noether symmetries, we also obtain many exact solutions of the equations of motion of these models, which were studied previously with numerical methods.

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