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Shift Symmetric Orbital Inflation

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Recent swampland conjectures highlight again the importance of finding viable scenarios for inflation that are not strictly single-field. In particular, one may wonder whether there are multi-field inflationary scenarios that have a similar phenomenology to single field inflation. We present a family of exact models of inflation - dubbed Orbital Inflation - in which the multi-field effects are significant, but the phenomenology remains similar to single field inflation. This simple predictions have a dynamic origin, and are non-trivial, as the isocurvature perturbations are exactly massless. The effective action of perturbations inherits a symmetry from an equivalence between background solutions. We comment on how our results could be connected to symmetries of the UV theory.

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