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Universal Behavior in Inflationary Cosmology SEAN DOWNES,

TAMU — Inflation is studied using a Singularity Theory, resulting in a set of universality classes with distinct quantitative behavior. The physical observables are shown to be insensitive to the model-dependent details. This strongly suggests inflation is an emergent behavior. Examples from IIB string theory and the supersymmetric field theories are given. Finally, the problem of initial conditions is addressed in the context of the overall probability of inflation.

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