

Warming up Cold Inflation

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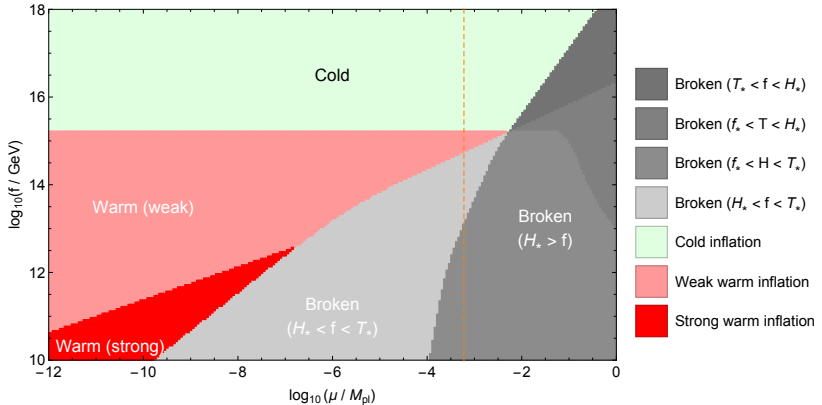
Cosmology From Home

Warming Up Cold Inflation

- Axion inflaton couplings can source co-evolving thermal bath
- Warm inflation is generic!
- Bath is an attractor, whether you begin at low T or in vacuum
- Large regions of parameter space affected by bath
 - Weak warm: predictions altered
 - Strong warm: dynamics and predictions altered
 - Broken: EFT breaks down entirely

Parameter Space

$$V(\phi) = \mu^3(\sqrt{\phi^2 + \phi_c^2} - \phi_c), \quad \phi_c = M_{\text{pl}}/10$$



Orange line indicates normalization which matches observed CMB amplitude in cold inflation