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Parametric amplification of the inflaton fluctuations induced by a heavy scalar field

RESCEU

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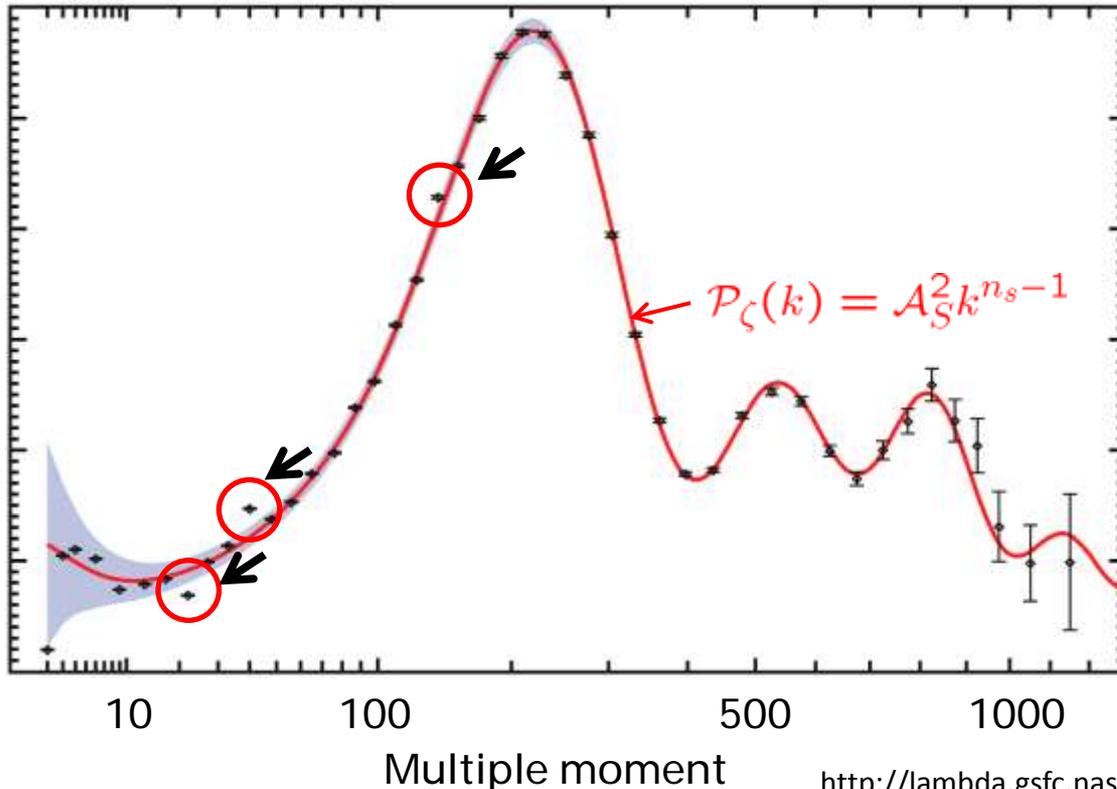
Introduction

High precision data on CMB anisotropies

➔ Primordial fluctuations

Nearly scale invariant power spectrum + **small deviation**

$$P_{\zeta}(k) = A_S^2 k^{n_s-1} + \underline{\delta}$$



Observed *anomalies* in the spectrum of the CMB anisotropy

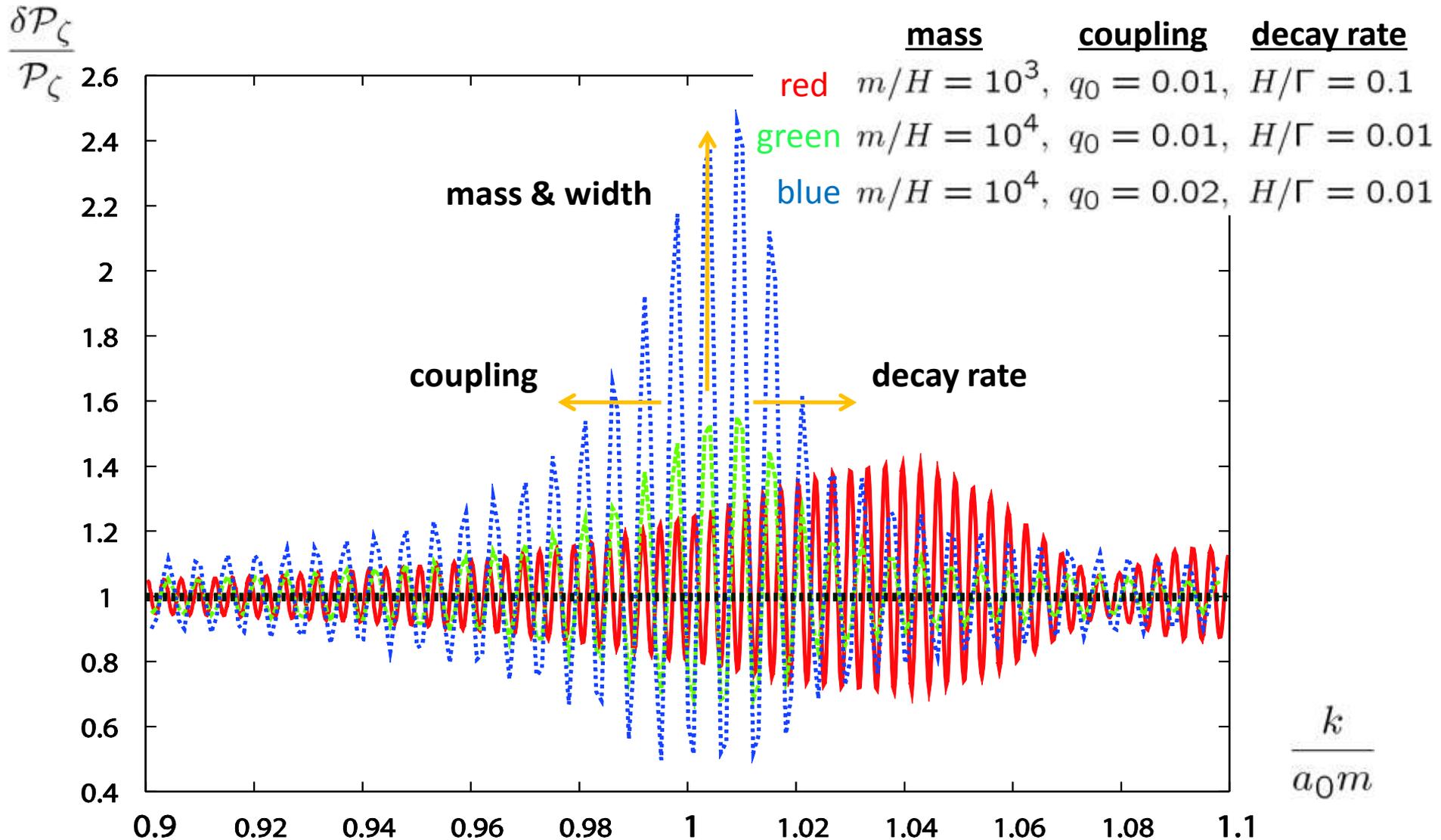
Our work

Parametric amplifications induced by oscillations of a heavy scalar field



CMB anomaly

Modulated primordial power spectrum



Modulated CMB power spectrum

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