

Generalized Slow Roll

- Heuristically, a **non-linear mapping** or transfer function

$$\Delta_{\mathcal{R}}^2(k) = A_s T[G'(\ln \eta)]$$

- Allows only initial curvature spectra that are **compatible** with **single field inflation**
- Disallowed behavior **falsifies** single field inflation
- PC decomposition of G' allows **efficient computation** - precompute responses and combine non-linearly
- Changes in initial power spectrum do not require recomputing radiation transfer in CMB – **fast parameters** in CAMB
- Bottleneck is **WMAP likelihood** evaluation. Fast OMP parallelized code ($\sim 5N_{\text{core}}$ speedup)

http://background.uchicago.edu/wmap_fast

Functional Constraints on Source

- 5 nearly Gaussian independent constraints on deviations from scale invariance for model testing
- Not a reconstruction due to truncation

