

JCAP (2009)

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lsotropy

Solutions











Cosmological Problems: Solutions

Following the path of phenomenology

Inflation: generalities

A realization: slow rolling scalar field

Other Possibilities?

Necessary condition for slow roll

Higher derivatives? It must be unstable.....

Dual 3-nflation

Dual Lagrangian

Stuckelberg formalism

What did we learn?

The Phistetical: gatthing personation fistion weiter plifterent...

Cancelling the unwanted term

Slow rolling scalar like theory?

P-nflationary theories

Degrees of freedom

Dual to each other? No!

Conclusions

New inflationary theories constructed from p-form
 Two types: scalar and vector

p=0 and dual p=3: Scalar p=1 and dual p=2: Vector

- Dual theories kinetically non-minimal coupled
- Scalar inflation and 3-nflation stable
- Vector and 2-nflation might have ghost instabilities
 In the longitudinal mode
- New possible CMBR signatures



Perturbations !

Stability of 1,2-nflation

New signatures

- Non-gaussianity
- for 1,2-nflationary theories residual anisotropies