

◆ Stability (or ghost) ?

massive gravity

g : Minkowski

f : Minkowski



no ghost

g : FLRW

f : de Sitter



ghost

(1) other background

- Bianchi

- non-(bi)diagonal **perturbations ?**

Which background the universe evolves into ?

(2) extended massive gravity

- quasi-dilaton, varying graviton mass



ghost

- vierbein ?

- SUSY ?

(3) bigravity (bimetric)

- no ghost in curved space ?

- partially massless : better candidate ?

- homothetic solution: attractor ?

◆ Causality

- Deser-Waldran's argument might be wrong ?

Blas-Deffayet-Garriga ('05)

[hep-th/0508163](https://arxiv.org/abs/hep-th/0508163)

- Causal structure in bigravity
superluminal but no closed timelike curve

- Global Structure

Maximal Extension

