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## Consistent metric combinations in cosmology of massive bigravity

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Massive bigravity models are interesting alternatives to standard cosmology. In most cases however these models have been studied for a simplified scenario in which both metrics take homogeneous and isotropic forms (Friedmann-Lemaitre-Robertson-Walker; FLRW) with the same spatial curvatures. The interest to consider more general geometries arises in particular in view of the difficulty so far encountered in building stable cosmological solutions with homogeneous and isotropic metrics. Here we consider a number of cases in which the two metrics take more general forms, namely FLRW with different spatial curvatures, Lemaitre, Lemaitre-Tolman-Bondi (LTB), and Bianchi I, as well as cases where only one metric is linearly perturbed. We discuss possible consistent combinations and find that only some special cases of FLRW-Lemaitre, LTB-LTB and FLRW-Bianchi I combinations give consistent, non-trivial solutions.

**Presenter:** NERSISYAN, Henrik (Heidelberg University ITP, Germany)

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