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Doubled FLRW models from the spectral geometry

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The non-product spectral geometry may lead to models that possess features characteristic to bimetric gravity theories. Starting from the pair of Friedmann–Lemaître–Robertson–Walker metrics on the product geometry and mildly modifying the Dirac operator we end up with a class of models that have a nontrivial interacting potential term, and their solutions are stable for several cosmological scenarios. The resulting doubled FLRW geometries can be thought of as the generalization of the family of bimetric models with non-polynomial potential. Based on a joint work with Andrzej Sitarz.

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