

Abstract Submitted
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The four-dimensional effective action of a multibrane world in five dimensions JOLYON BLOOMFIELD, EANNA FLANAGAN, Cornell University
— We present an analysis of the gravitational behaviour of an N -brane model in five dimensions under general conditions. A two-lengthscale expansion is used to obtain a low-energy description of the model, allowing us to compute a four-dimensional effective theory in this regime. We find $N - 1$ radion modes in a non-linear sigma model with the target space being hyperbolic space. Our analysis produces exact solutions of the five-dimensional equations of motion, although the stability of these solutions is known to break down in the case of a black hole on a brane.

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