

Abstract

We consider a five dimensional DGP-brane scenario endowed with a non- minimally coupled scalar field within the context of Brans-Dicke theory. This theory predicts that the mass appearing in the gravitational potential is modified by the addition of the mass of the effective intrinsic curvature on the brane. We also derive the effective four dimensional field equations on a 3 + 1 dimensional brane where the fifth dimension is assumed to have an orbifold symmetry. Finally, we discuss the cosmological implications of this setup, predicting an accelerated expanding universe with a value of the Brans-Dicke parameter consistent with values resulting from the solar system observations.