

Abstract Submitted
for the FWS16 Meeting of
The American Physical Society

Field Localization in a Five-Dimensional Braneworld Model

DEWI WULANDARI, Institut Teknologi Bandung and CSU Fresno — We study the localization properties of fundamental fields in five-dimensional braneworld models both in an original Randall-Sundrum (RS) model and in a modified Randall-Sundrum model. The fields are coupled minimally to the gravitation field. The metric of the models are conformally flat, have an exponential warp factor, and are physically distinct from one another. We investigate the localization properties for scalar fields, vector fields and spinor fields both the original RS and the modified RS metrics. We then compare the properties and we find that the modified RS brane metric is better at localizing the fields than the original RS metric.

Dewi Wulandari
Institut Teknologi Bandung and CSU Fresno

Date submitted: 10 Oct 2016

Electronic form version 1.4