Buchel, Alex
Effective action of string theory flux compactifications. (English) Zbl 1405.81095

Summary: We discuss four-dimensional effective actions of string theory flux compactifications. These effective actions describe four-dimensional gravity coupled to the overall Kähler modulus of the compactification manifold. We demonstrate the agreement between the ten-dimensional equations of motion of supergravity with localized branes and the equations of motion derived from the effective action. The agreement is lost, however, if one evaluates the full effective action on the equations of motion for a subset of the supergravity modes, provided these modes depend on-shell on the Kähler modulus.

MSC:
81T30 String and superstring theories; other extended objects (e.g., branes) in quantum field theory

Full Text: DOI arXiv