

Fermionic T-duality in massive type IIA supergravity on $AdS_{10-k} \times M_k$

Bakhmatov I.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, The Author(s). Fermionic T-duality transformation is studied for supersymmetric solutions of massive type IIA supergravity with the metric (Formula presented.) for (Formula presented.) and 5. We derive the Killing spinors of these backgrounds and use them as input for the fermionic T-duality transformation. The resulting dual solutions form a large family of supersymmetric deformations of the original solutions by complex valued RR fluxes. We observe that the Romans mass parameter does not change under fermionic T-duality, and prove its invariance in the (Formula presented.) case.

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