

Scalar fields matter: democratization, applications and type IIB

A democratic formulation of the effective string theory action has been proven to be a powerful tool with applications that range from coupling magnetically branes to flux compactification, among others. While the dualization of higher form fields has already been obtained, it remains the problem of the dualization of scalars even when they are non-linearly realized in the theory. In this work, we develop a systematic method to dualize the scalars coupled to a $(p+1)$ -form potential. As a potentially useful application, we obtain the democratic pseudoaction for $N=2B$, $d=10$ supergravity, manifestly invariant under global $SL(2,R)$ transformations.

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