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Supersymmetric Dirac-Born-Infeld action from N=2 supergravity

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In this talk, we discuss the partial breaking of N=2 supergravity. It is known that the supersymmetric Dirac-Born-Infeld (DBI) type action appears as a Nambu-Goldstone mode of the partial breaking in the rigid N=2 theory. In this work, we try to reveal the supergravity couplings to the DBI type action on the basis of component and superspace approaches. We compare our action directly obtained from the N=2 supergravity with the previous works which only focus on the remaining N=1 supersymmetry. The super-Higgs mechanism and its phenomenological implications are also discussed.

Parallel Session

Formal Field Theory and Strings

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