Séminaire des doctorants du LPTHE

Wednesday, October 1ˢᵗ, 3:00pm
Library of LPTHE

On supersymmetric vacua in N = 2 matter-coupled gauged supergravity

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We analyze in detail the gauging of isometries on the hypermultiplet scalar manifolds of N = 2 supergravity in four dimensions. This involves a comprehensive study of the symmetries on special quaternionic Kähler manifolds, building on the work of de Wit and Van Proeyen. In particular we compute the general set of Killing prepotentials and associated compensators for special quaternionic-Kähler manifolds. This allows us to glean new insights about AdS 4 vacua which preserve the full N = 2 supersymmetry as well as general BPS static black hole horizons in such theories with non-trivial expectation values for hypermultiplet scalars.