

Type IIB S-folds: solutions and consistent truncations

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We will report on new and old solutions of type IIB supergravity on $M_4 \times S^1 \times S^5$ with an $SL(2, \mathbb{Z})$ monodromy along the S^1 . These solutions are called type IIB S-folds. They are built using a consistent truncation of type IIB SUGRA to a 4D maximal gauged supergravity. This 4d supergravity admits a rich landscape of solutions: supersymmetric and non-supersymmetric AdS_4 vacua, universal black-holes, and even a peculiar family of scale separated solution with $M_4 = AdS_2 \times H^2$. To build on these results we will also show how to consistently embed the pure $N=4$ $SO(4)_R$ gauged supergravity as an S-fold. This opens the possibility to study many more BH solutions and further test the AdS/CFT conjecture in the context of S-folds.

Presenter: STERCKX, Colin