“From ExFT to non-supersymmetric conformal manifolds”

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Abstract: S-folds are solutions of Type IIB supergravity on AdS_4 x S^1 x S^5 featuring a SL(2,Z) monodromy along the S^1. These solutions are conjectured to be dual to strongly coupled CFT_3 on a localized interface of SYM_4. Using tools of exceptional field theory, we perform a holographic study of these CFTs, the RG-flow between them, and their conformal manifolds. Surprisingly, solutions turn out to admit non-supersymmetric, perturbatively stable and exactly marginal deformations (at least at large N) which are classified in terms of mapping tori. Finally, we discuss the implications of such deformations in light of the swampland program.