

# EXPANDING RICCI SOLITONS AND HIGGS BUNDLES

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In this talk, I will describe new families, depending on arbitrarily many parameters, of complete expanding Ricci solitons (including Einstein metrics) in dimensions 4 and above. These metrics have local isometries with codimension-2 orbits. They arise as limits of Ricci flows on closed manifolds (even without symmetry assumptions). The construction uses a dimension-reduction argument to the so-called harmonic-Einstein equations inspired by work of Lott, and a link between solutions to the latter and the theory of Higgs bundles.

*Trabajo en conjunto con Adam Thompson (Münster).*

## **Referencias**

[1] <https://arxiv.org/abs/2506.11362>