

# Evidence for a four-dimensional $N = 1$ integrable quiver in massive type IIA supergravity

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We examine a newly discovered parametric family of backgrounds in massive type IIA supergravity that contains a warped AdS5 factor. This family is the dual gravity description of four-dimensional quivers with  $N=1$  supersymmetry. We are interested in the status of classical integrability in these theories, and we show that there exists a single choice of solutions that is special, while all other choices lead to nonintegrable quivers and chaotic string motion. By focusing on this special choice, we provide strong suggestive evidence for the integrability of the dual field theory based on analytic studies and extensive numerical analysis.

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