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Ilesanmi Adeboye, Harrison Bray* (brays@umich.edu) and **David Constantine**. *Volume and entropy for Hilbert geometries*.

We prove that for any closed manifold M admitting a hyperbolic metric, there is a lower bound on the Hilbert volume of convex projective structures on M . Moreover, the volume growth entropy decreases to 0 if the Hilbert volume of the convex projective structures on M grows without bound. In dimension three, these results are an application of a volume-entropy rigidity theorem following the classical work of Besson-Courtois-Gallot. This is joint work with Ilesanmi Adeboye and David Constantine. (Received September 12, 2017)