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Valentino Tosatti and **Ben Weinkove*** (weinkove@math.ucsd.edu), Mathematics Department, UCSD, 9500 Gilman Drive #0112, La Jolla, CA 92093. *The Calabi-Yau equation on the Kodaira-Thurston manifold.*

We prove that the Calabi-Yau equation can be solved on the Kodaira-Thurston manifold for all given T^2 -invariant volume forms. This provides support for Donaldson's conjecture that Yau's theorem has an extension to symplectic four-manifolds with compatible but non-integrable almost complex structures. This is a joint work with Valentino Tosatti. (Received August 14, 2009)