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Andrew Marks* (marks@caltech.edu), California Institute of Technology, Department of Mathematics MC 253-37, Pasadena, CA 91106. *Determinacy and structure theorems for countable Borel equivalence relations.*

We use Borel determinacy to prove some structure theorems for the universal treeable countable Borel equivalence relation $E_{\infty T}$. We show that $E_{\infty T}$ is not a smooth disjoint union of non-universal treeable countable Borel equivalence relations, that $E_{\infty T}$ achieves its universality on a nullset with respect to every Borel probability measure, and that universality for Borel reductions and universality for Borel embeddings coincide for the class of treeable equivalence relations. Our results follow from the existence of a countably complete ultrafilter on the invariant Borel sets of $E_{\infty T}$ for which every element of the ultrafilter is universal. Our proofs also generalize to some other universal \mathcal{K} -structurable equivalence relations. (Received December 03, 2012)