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López-Escobar's theorem and metric structures.

This is joint work with Martino Lupini. López-Escobar's theorem states that any Borel class of countable structures can be axiomatized using a sentence of infinitary logic (with countable conjunctions and disjunctions). In this talk we present a variant of López-Escobar's theorem for metric structures. This theorem will imply that any Borel class of separable metric structures can be axiomatized using a sentence of an appropriate infinitary continuous logic. As a corollary we obtain a connection between the topological Vaught conjecture and a model-theoretic version. (Received February 12, 2016)