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Measure and randomness for algebraic structures.

R. Miller has recently introduced a method for defining an effective measure on the spaces of the isomorphism types of computable algebraic structures such as algebraically closed fields and finitely branching trees. This gives us a new way to discuss the frequency of certain properties of computable structures, including computable categoricity.

In fact, we can ask whether there is a type of randomness that will guarantee \mathcal{P} for any measure-one property \mathcal{P} . In the case of algebraically closed fields of characteristic 0, we have shown that Schnorr randomness is enough to guarantee uniform computable categoricity. I will present this result as well as some comments on finitely branching trees. (Received September 25, 2018)