

Speaker: Henry Towsner

Title: Computability and Stability for the Ergodic Theorem

Abstract: When a theorem says something holds "except on a set of measure 0", algorithmic randomness generally gives a way to talk coherently about "which set of measure 0". A number of recent results in the area have applied this idea to various cases of Birkhoff's pointwise ergodic theorem. We discuss how these results can be understood without reference to computability, by looking at the stability of the ergodic theorem under perturbations. (No knowledge of ergodic theory or algorithmic randomness is assumed.)