THE AE THEORY OF THE LOCAL STRUCTURE OF THE ENUMERATION DEGREES

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Enumeration degrees was studied for a long time, often as a companion to the Turing degrees. The resulting properties are often in contrast to their Turing degree counterparts, and sometimes agree. Unlike Turing reducibility in which relative computation is allowed positive and negative information about the reducing set, enumeration reducibility uses only positive information and is therefore more suited to applications in which we wish to compare the relative algorithmic strength of reals when they are presented by an enumeration. We briefly discuss several applications of enumeration degrees and discuss some ongoing work relating to the two quantifier theory of the local enumeration degrees.

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