

Low for Random and Domination

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I will present various recent joint results of mine and my coauthors on the area of randomness and in particular on the low for random degrees and almost everywhere domination. For example,

1. for all $n \geq 1$ there is a $(n-1)$ -random set which is Σ_n^0 but not Δ_n^0 .
2. there is a non-cuppable (by c.e. degrees) almost everywhere dominating sequence of c.e. degree. This implies the result in the submitted paper for the CCA proceedings. Also, it implies that every set which is computable by all c.e. almost everywhere dominating degrees must be non-cuppable (in the c.e. degrees).
3. A splitting theorem for the c.e. low for random degrees.
4. $0'$ and all superhigh low for random degrees bound uncountably many low for random degrees.

Most of this work is still on progress. The talk will assume little or no background on this area.