Measure and domination

In this talk I describe some results concerning measure, reverse mathematics, and randomness. Working with the standard probability measure on Cantor space, a real $Z$ is said to be almost everywhere dominating if every function computable in almost every real is dominated by a function computable in $Z$. This property was conjectured to be equivalent to having high degree, a conjecture that has been proved false. The proof that there is a high degree that is not almost everywhere dominating will make up the bulk of my presentation. I will also address a related notion, positive-measure domination, recently formulated by Bjorn Kjos-Hanssen.