1112-03-225 **Denis R. Hirschfeldt** and **Carl G. Jockusch***, jockusch@math.uiuc.edu, and **Rutger Kuyper** and **Paul E. Schupp**. *Coarse reducibility and algorithmic randomness.*

A set $D \subseteq \omega$ is a *coarse description* of a set $A \subseteq \omega$ if the symmetric difference of A and D has asymptotic density 0. We say that B is *nonuniformly coarsely reducible to* A (written $B \leq_{nc} A$) if every coarse description of A computes a coarse description of B. We say that B is *uniformly coarsely reducible to* A (written $B \leq_{uc} A$) if there is a fixed Turing functional Φ which witnesses that $B \leq_{nc} A$. We show that the Turing degrees are embeddable in the uniform coarse degrees and also in the nonuniform coarse degrees. We prove that if $X \leq_T 0'$ is 1-random and A is computable from every coarse description of X, then A is K-trivial. Therefore every set computable from every coarse description of a weakly 2-random set is computable. In the other direction, we show that for every 1-random set $X \leq_T 0'$, there is a promptly simple set computable from every coarse description of X, and also not every K-trivial set is computable from every coarse description of some 1-random set. We show that if $X \oplus Y$ is weakly 3-random, then the nonuniform coarse degrees of X and Y form a minimal pair. (Received August 04, 2015)