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Andres del Junco* (deljunco@math.toronto.edu) and **Boris Begun**. *Partitions with independent iterates in random dynamical systems.*

Consider a measure-preserving map (dynamical system) T on a probability space. A finite partition of the space is called weakly independent if there are infinitely many images of this partition under powers of T that are jointly independent. In 1970 Krengel proved that a system is weakly mixing if and only if weakly independent partitions of the underlying space are dense among all finite partitions. In a recent paper we generalized this to free weakly mixing actions of any discrete amenable group. Using the tools developed in that paper we obtain a Krengel-type result for weakly mixing random dynamical systems (or equivalently systems that are relatively weakly mixing with respect to a factor). (Received August 08, 2006)