1078-03-237 **Gregory Igusa*** (igusa@math.berkeley.edu), CA. *Nonexistence of Minimal Pairs for Generic Computation.*

In a recent paper, Jockusch and Schupp introduce and analyze the notion of generic computation. A generic computation of a real is a partial recursive function which correctly computes most of the bits of the real, but which may diverge on some inputs, provided that these inputs have an asymptotic density of 0 in the natural numbers. It turns out that this notion of computation has many properties that are rather counterintuitive from a recursion theoretic point of view.

We present our result that there are no minimal pairs for generic computation, in the sense that for any nonrecursive reals A and B, there is a real C, which is not generically computable, but such that C can be computed from either A or B. Downey, Jockusch, and Schupp proved this result in the case where A and B are both Δ^0_2, and indeed this distinction appears to be significant, in that our technique requires a nonuniformity in the algorithm, based on whether one, both, or neither of the reals is Δ^0_2. (Received December 10, 2011)