1063-37-6 **Annalisa Crannell*** (annalisa.crannell@fandm.edu), Department of Mathematics, Box 3003, Franklin & Marshall College, Lancaster, PA 17604-3003, and **Sohaib Alam** (malam@physics.utexas.edu). *Quasicontinuous functions with totally discontinuous iterates.*

Many theorems of topological dynamics apply beyond continuous functions to *quasicontinuous* functions, functions for which inverse images of open sets are semi-open. It is well known that every quasicontinuous function has a dense—indeed, residual—set of points of continuity. If we require of our quasicontinuous function f a mild extra condition (that the forward images of non-empty open sets contain non-empty open sets), then the same is true of f^k for all $k > 0$. Indeed, we show that the set of points for which f is continuous at every point along the orbit of x is likewise residual. On the other hand, we show that iterates of general quasicontinuous functions are less well-behaved: in particular, we give examples of two quasicontinuous functions whose second iterates are discontinuous everywhere. (Received March 22, 2010)