

Tzanko Donchev (tdd51us@yahoo.com), University of Architecture & Civil Engineering, 1046 Sofia, Bulgaria, **Elza M. Farkhi*** (elza@post.tau.ac.il), School of Mathematical Sciences, Tel Aviv University, Israel, and **Peter Wolenski** (wolenski@math.lsu.edu), Department of Mathematics, Louisiana State University, *Characterizations of Reachable Sets for a Class of Differential Inclusions*

This paper studies a differential inclusion under the relaxed one-sided Lipschitz condition, and provides a characterization of its multivalued reachable set mapping. Previous characterizations of reachable set mappings, such as in the well-known funnel equation, have been local and require a “two-sided” Lipschitz assumption. Under the weaker one-sided assumption, the characterization in this paper has a global character, and in particular, identifies a class in which uniform limits of Euler polygonal arcs coincide with the absolutely continuous solutions of the differential inclusion. The characterization is also extended to include functional-differential inclusions.