Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) Vol. V (2006), 439-444

A simple proof of the propagation of singularities for solutions of Hamilton-Jacobi equations

YIFENG YU

Abstract. In Albano-Cannarsa [1] the authors proved that, under some conditions, the singularities of the semiconcave viscosity solutions of the Hamilton-Jacobi equation propagate along generalized characteristics. In this note we will provide a simple proof of this interesting result.

Mathematics Subject Classification (2000): 35F20 (primary); 35D99 (secondary).