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We wish to point out an important misprint in the definition of lower solution introduced in [1], p. 320. Given a decomposition

$$\mathbb{R}^n \;=\; \mathcal{M}_1 \cup \cdots \cup \mathcal{M}_M\,, \tag{1}$$

into disjoint submanifolds $\mathcal{M}_i$, in [1] the authors studied the equation

$$\beta u(x) + H(x, Du(x)) \;=\; 0. \tag{2}$$

The Hamiltonian function is defined as

$$H(x,p) \doteq \sup_{(f,\eta)\in G(x)} \Big\{ -f\cdot p \,-\, \eta\Big\}, \tag{3}$$

for a suitable multifunction G. In this setting, the appropriate definition of lower solution should be as follows.

Definition 2. We say that a continuous function u is a **lower solution** of (2)-(3) relative to the stratification (1) if the following condition holds. If $\bar{x} \in \mathcal{M}_i$ and the restriction of $u - \varphi$ to $\mathcal{M}_i$ has a local maximum at $\bar{x}$ for some $\varphi \in \mathcal{C}^1$, then

$$\beta u(\bar{x}) + \sup_{(y,\eta)\in G(x),\, y\in T_{\mathcal{M}_i}(\bar{x})} \Big\{ -y\cdot D\varphi(\bar{x}) - \eta\Big\} \;\leq\; 0. \tag{4}$$

Indeed, since the only assumption on φ is concerned with its restriction to $\mathcal{M}_i$, it is clear that the supremum in (4) should only involve vectors y contained in the tangent space $T_{\mathcal{M}_i}(\bar{x})$ to the manifold $\mathcal{M}_i$ at the point $\bar{x}$.

All the examples and the results contained in [1] were written with the above definition in mind. They retain their validity as soon as formula (26) in [1] is replaced by (4) above.

REFERENCES

[1] A. Bressan and Y. Hong, *Optimal control problems on stratified domains*, Networks and Heterogeneous Media, **2** (2007), 313–331.

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