ERRATA CORRIGE

Remarks on Capture-Avoidance Games

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Abstract. Corrections to some results of Ref. 1 are stated.

Key Words. Differential games, pursuit and evasion, capture-avoidance, linear games.

Following discussions with G. Leitmann, H. Stalford, and W. Grantham concerning Ref. 1, the author wishes to make the following remarks.

(i) In Eq. (8), $J^*(x_0, t_0)$ should read $J^*(x, t)$.

(ii) In Theorem 5.1 the statement that π is C^1 means that $\mathscr{V}(\cdot)$ (which generates π) is C^1. This theorem still holds if $\mathscr{V}(\cdot)$ has a C^1 extension in the region contained by every two consecutive tubes, that is, if there exist constants $c_1 < c_2 < \cdots < c_k$ such that $\mathscr{V}(\cdot)$ has a C^1 extension on each

$$\pi_{i,i+1} = \{(x, t): c_i < \mathscr{V}(x, t) < c_{i+1}\}.$$

This can be proved using simple decomposition (Ref. 2) of the state space. As an illustration, consider the class of simple linear differential games (Ref. 1).

(iii) In Eq. (21), the equality sign $=$ should read $\leq$ (less or equal). Then, the right-hand side is taken as a candidate for the true optimal cost.

(iv) Theorem 6.1 may not be valid in the general case. The results for simple linear differential games, however, are valid.

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References

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