The Combat Game on A Plane Between Two Agents

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Abstract: This paper explores the combat game between two agents, which might be the unmanned aerial vehicles(UAV), AIs for electronic games, or robots to play soccer. The game is played on a 2-D latticed plane while the agents have the finite life and capability to attack. The boundedly rational agents will make decisions based on their predictions of their opponents. The evolutionary features of such a system as well as some analysis about the optimal strategies for agents will be investigated.

Key Words: zero-sum game; level-1 predictions; combat game; game dynamics

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