**Optimized Escape Maneuver for Target-Attacker Problem**

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**Abstract:** *The objective of this work is to find an optimized escape maneuver against attacking missile. The missile tracks the target according to 2D guidance low called proportional navigation. After studying the available evasive techniques, we found that the most powerful is close to be polynomial or trapezoidal. Setting the cost function that help us to achieve our goal by maximize the missile acceleration and maximize the miss distance. Then we do Monto Carlo and genetic algorithm optimization techniques. After that we want to add the contribution of the human inelegance, so we build a mathematically-correct game of target-attacker and let many people play it to find the best escape maneuver and collect data and analysis and optimize the human-based escape maneuver. The game is based on the same guidance low, which control the missile behavior. The player controls the target, trying to evade the missile. This game has been developed using Unity, which is a free cross-platform game engine. The preliminary results are reasonable and show promise*.!!!