

A Simulation for Behaviors of Preys to Avoid Pursuit of Predator

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Abstract : Generally the predator will continuously aim to attack the prey, while the prey will maintain a safe distance from the predator in order to avoid it . If the predator has enough energy to chase a certain amount of distance, it will begin to attack the prey. The prey needs to approach the predator for various reasons such as getting food. However, it will also try to keep a safe distance because of the threat of predators. The safe distance is dependent on the amount of the energy of predator, and the behaviors of prey is changed according to the size of the safe distance. This paper is to simulate the behaviors of preys to avoid the pursuit of predator based on the safe distance. The simulations will be executed experimentally under single predator and multiple preys. The results of the simulations show that the amount of energy of predator gives a great influence on the behavior of the prey.

Keywords : predator, prey, energy, safe distance, simulation

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