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OSCILLATOR FINDER FOR HEXAGONAL GAME OF LIFE WITH 8 NEIGHBORS

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Abstract

Game of Life (GoL in the following) by John Conway is a computational (mathematical) model, which uses a specific rule-system, a set of simple rules, to simulate a changing environment, which is constructed of cells. However, the original environment of GoL is a grid of square cells, in this talk we will discuss another implementation. This variant is based on hexagonal cells, which means that the environment consists of hexagon shaped cells. In our former researches we got to the conclusion, that 6 neighbors (the actual number of neighbors a hexagonal cell has) is not enough to support life. This is the reason of the additional 2 neighbors. Furthermore, we have developed an algorithm, which can recognize oscillators and gliders. We have not met any other attempts for similar algorithms, so we may say this is the first oscillator detector.