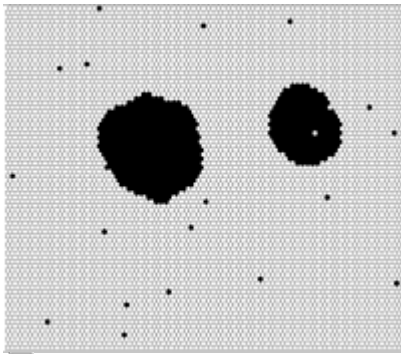
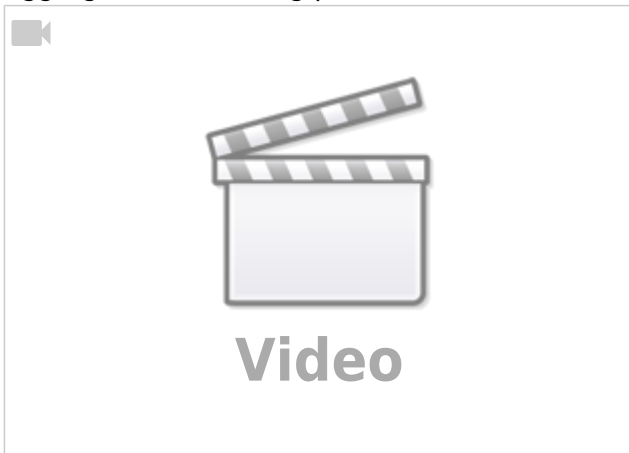


## Miscellaneous models

### Particle Aggregation: FlipCells



Aggregation of moving particles



#### Introduction

This model approximates an interacting particle system (IPS) model of particle aggregation. Each black dot represents a particle that moved due to spin flips with random neighbors. The particles perform random walks in which the probability of moving depends on the number of neighboring cells.

#### Model description

Each lattice site (white or black) counts the number of particles (black neighboring sites) using a `NeighborsReporter`.

The probability of movement of each particle is made dependent on its number of neighbors by using it in the `Condition of FlipCells`. When this condition is satisfied, the particle changes positions with a random neighboring lattice site.

A `PopulationReporter` is used to return the fraction of isolated black particles. This number is logged and plotted using the `Logger`.

## Things to try

- Change the parameter p.

## Model

h ParticleAggregation.xml |h

```
extern>http://imc.zih.tu-dresden.de/morpheus/examples/Miscellaneous/Particle  
Aggregation.xml
```

In Morpheus GUI: Examples → Miscellaneous → ParticleAggregation.xml

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