

Simulation of Congestion using Self-driven Molecule

Author SHIMURA Masato(jcd02773@nifty.ne.jp)

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Script aseplv.turtle.exe (self-extract)

including 2 ijs files

aseplv.turtle.ijs

aseplv.turtle_lv.ijs

Usage: select parameter and push DRAW it turns automatically

first time picture is small,when parade was stopped (about 2 minute later)

dragging Mouse length and width to enlarge picture

* aseplv_run ”

*aseplv_run”

numerical formula • **ASEP** Asymmetric Simple Exclusion Process

- Using Cellular automata
- Self-driven Molecule steps with t

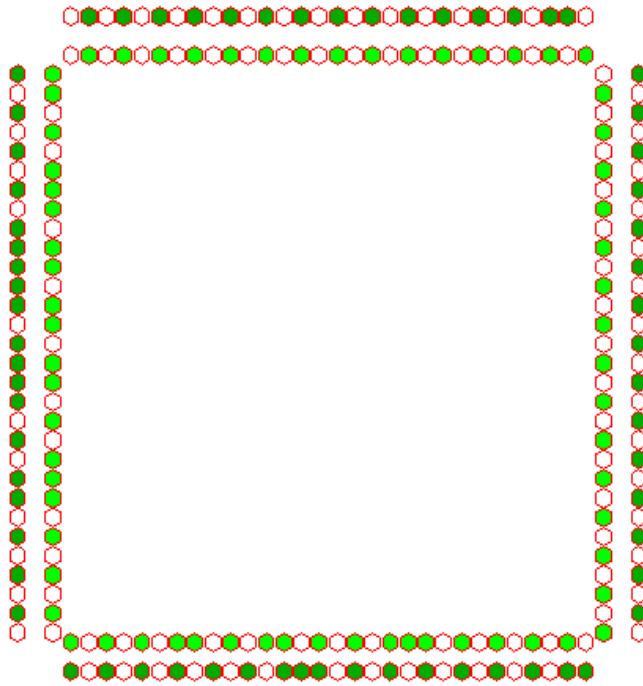
t	0	1	1	0	0	1	1	1	0	1	\Rightarrow
$t + 1$	1	1	0	1	0	1	1	0	1	0	\Rightarrow
$t + 2$	0	1	1	0	1	1	0	1	0	1	\Rightarrow

Parade Many Animals Insects or Human are often parade in active

Ants,Turtles,Buffalos,Elephants,Dinosaurs,Vehicles.....

It seems arbitraly marching.

Turtle Graphics using turtle-graphics of J language



- Vehicles run in 2 lane clockwise
- color fuchsia are changed lane
- dark-blue in turtle-lv are tandem vehicles

References Nishinari Katsuhiko "The Theory of Congestion" Shincho-sya 2006

Miscellane Script(j602) is download available

<http://japla.sakura.ne.jp> → *Jlanguage* → *Library*