

Pattern Formation (Numerical Simulation)

■ Lattice model

- DLA (Diffusion Limited Aggregation)
- Eden model
- Ballistic Aggregation
- voter model (ref: Ivan Dornic et al., PRL 87 (2001) 045701)
- Cell Automaton (1 dim.)
- Cell Automaton with probabilistic global regulation (ref: Y2 et al., JPSJ 81 (2012) 043002)
- Contact process (1 dim.)

■ Continuum Field model

- diffusion eq.(1 dim.) / diffusion eq.(2 dim.)
- modelA(1 dim.) / modelA(2 dim.) / modelA(CDS 2 dim.)
- modelB(1 dim.) / modelB(2 dim.) (Cahn-Hilliard eq.) / modelB(CDS 2 dim.)
- A homework by Y. Oono (4.5.2 in Introduction to nonlinear world, p.209)
- block copolymer(2 dim.)
- Phase Field + Diffusion Field
- Snow Crystal Pattern (Anisotropic case)

- Fisher eq.(1 dim.) / Fisher eq.(2 dim.)
- Complex Ginzburg-Landau eq.(2dim.)
- Gray-Scott model(1 dim.) / Gray-Scott model(2 dim.)
- Oregonator
- Brusselator
- FitzHugh-Nagumo type model(1 dim.) / FitzHugh-Nagumo type model(2 dim.)
- Reaction-Diffusion equation (1dim.) / Reaction-Diffusion equation (2dim.)
- Turing model (1dim.) / Turing model (2dim.)

- Swift-Hohenberg model (1dim.) / Swift-Hohenberg model (2dim.)
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