

organism scale

tissues
colonies
microbiomes

automata

probabalistic
evolutionary models

fluid dynamics

**reaction-diffusion
equations**

graphical
models

**tissue
mechanics**

cells

bacteria

**compartment
models**

kinetic Monte
Carlo models

agent-based
models

organelles

viruses

chromosomes

**free energy
models**

**Fokkar-Plank
equation**

**polymer
dynamics**

**stochastic differential
equations**

**molecular
dynamics**

molecules

genetic sequences

proteins

Boolean network
models

**chemical master
equation**

**quantum
chemistry**

model complexity