

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**

**Fokker-Planck  
equation**

**polymer  
dynamics**

**stochastic differential  
equations**

**molecular  
dynamics**

molecules

genetic sequences

proteins

Boolean network  
models

**chemical master  
equation**

**quantum  
chemistry**

model complexity