Lattice-gas flow of flexible long clusters

TAKASHI MASHIKO, TAKASHI NAGATANI, Shizuoka University — We propose a new type of random-walk model, where each walker consists of serially-connected particles and behaves like a snake. This is an extended version of conventional single-particle random-walk model, and expected to have a potential for application in engineering fields like mobile robotics. Results of simulations on square lattice will be presented and discussed, especially for channel flows with a bias toward one direction, in comparison with the case of conventional random-walkers.