## Abstract Submitted for the DFD07 Meeting of The American Physical Society

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.

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