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Andrey Sarantsev* (sarantsev@pstat.ucsb.edu), South Hall 5607A, Department of Statistics & Applied Probability, University of California, Santa Barbara, CA 93106. *Brownian particles interacting through their ranks.*

Consider a system (finite or infinite) of Brownian one-dimensional particles with drift and diffusion coefficients depending on current rank relative to other particles. They were originally introduced for financial modeling. We study various aspects: collisions of particles, scaling limits, stationary distributions, long-term convergence. (Received September 20, 2017)