Andrey Sarantsev* (ansa1989@gmail.com), Seattle, WA 98105. Infinite Systems of Competing Brownian Particles.

Consider an infinite system of Brownian particles on the real line. Each particle moves as a Brownian motion with drift and diffusion coefficients depending on its current rank relative to other particles. We find a stationary distribution for the spacings between particles. This continues the work by Pal, Pitman (2008) and by Ichiba, Karatzas, Shkolnikov (2013). (Received August 11, 2015)