

# THE MOTION OF A TAGGED PARTICLE IN THE SIMPLE EXCLUSION PROCESS

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**Abstract:** The simple exclusion process is an interacting particle system. There is no birth or death of particles. Each particle perform an independent random walk. The walk is suspended when a particle jumps to the site of another particle. Therefore a tagged particle behaviors very much like a random walk with a fixed rate of slow down. In this talk we shall review some limit theorems of a tagged particle in the simple exclusion and report our progress in this direction.