

# Monte Carlo Simulations of Assymmetric Flow Field Flow Fraction

O. Iliev, T. Nagapetyan, K. Ritter

SDEs are used in description of a variety of industrial processes. While numerous studies on Monte Carlo and multilevel Monte Carlo methods for SDEs used in the financial engineering (option pricing, Greeks calculation etc.) are available in the literature, the technical applications are not so broadly studied. In this paper we shortly explain Asymmetric Flow Field Flow Fractionation process for nanoparticles separation, introduce SDE based mathematical model, describe Monte Carlo procedure for its solution, and end with presenting some numerical results.