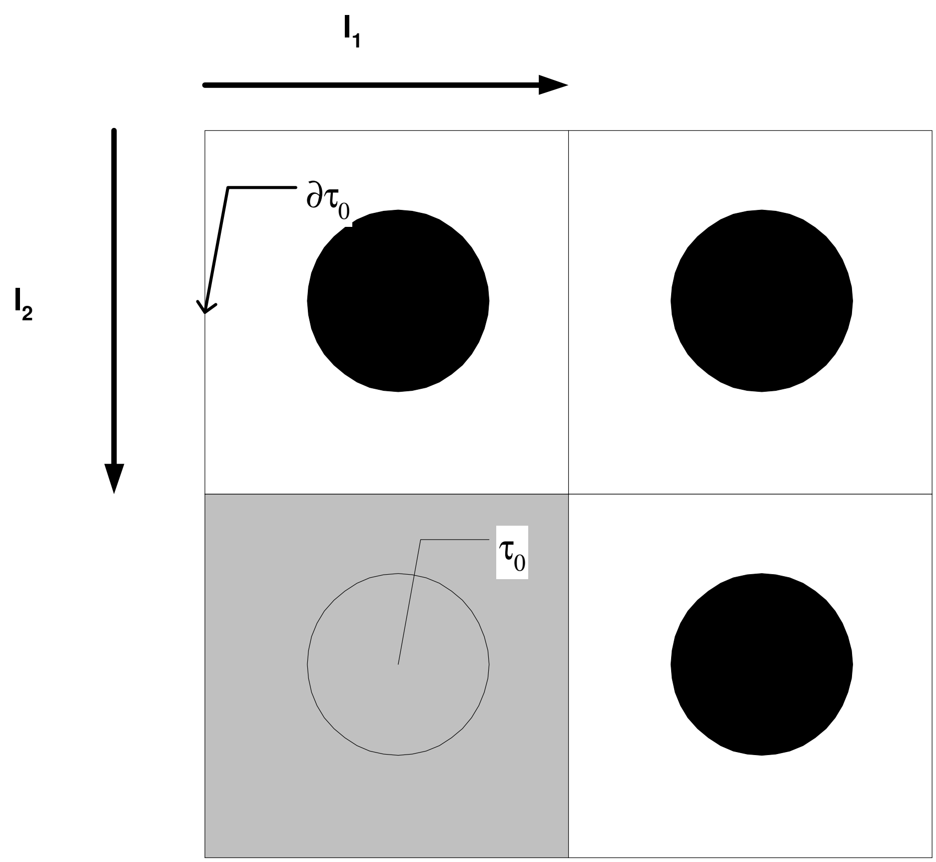


Figure 1: Spatially periodic media with unit cell volume $\tau_0$, bounding surface $\partial\tau_0$, and lattice vectors $\mathbf{l}_1$ and $\mathbf{l}_2$.

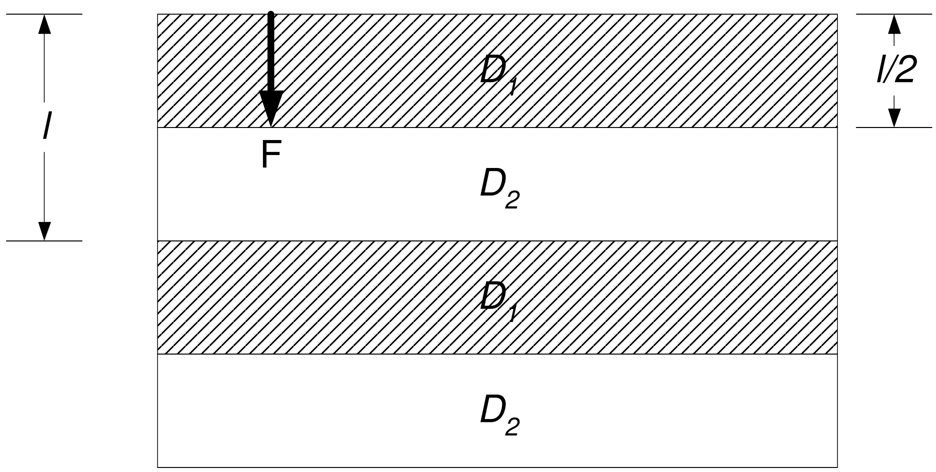


Figure 2: Variable diffusivity media.

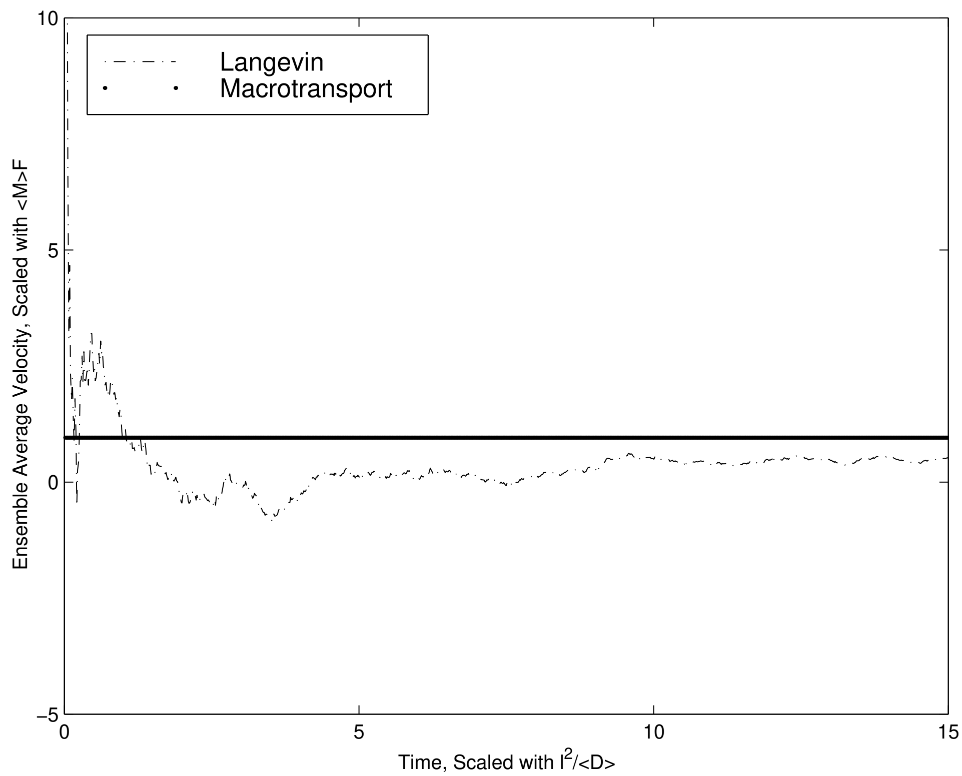


Figure 3: Comparison of the Langevin mean velocity and macrotransport mean velocity for the parametric values $D_1/D_2 = 2/3$ and $Pe = 0.1$.

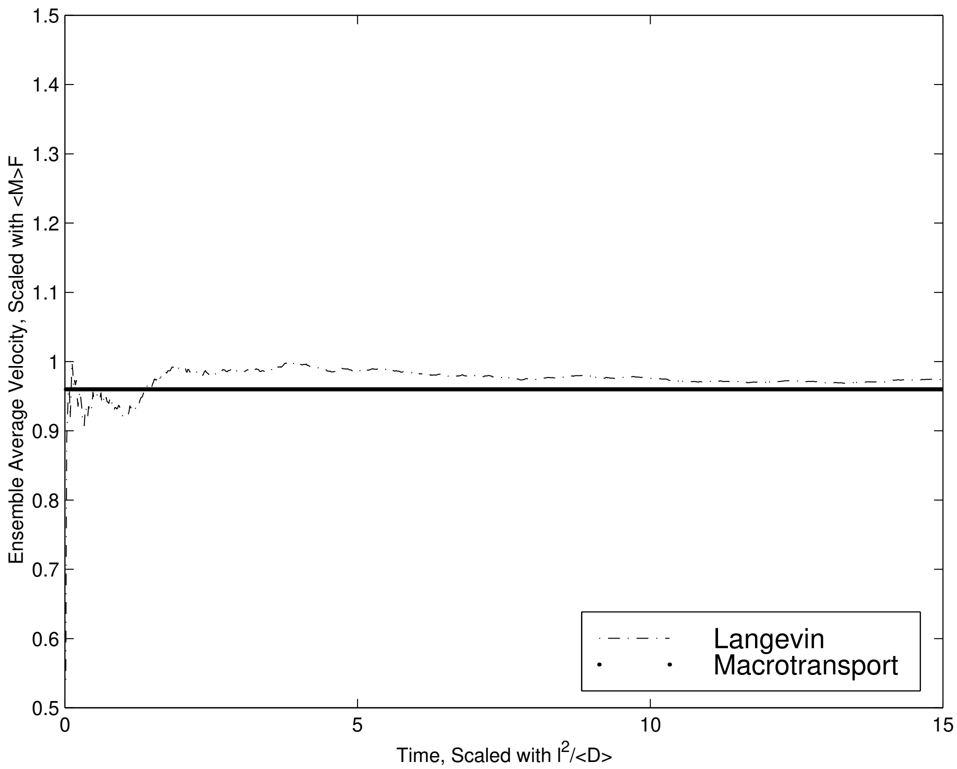


Figure 4: Comparison of the Langevin mean velocity and macrotransport mean velocity for the parametric values $D_1/D_2 = 2/3$ and $Pe = 5$.

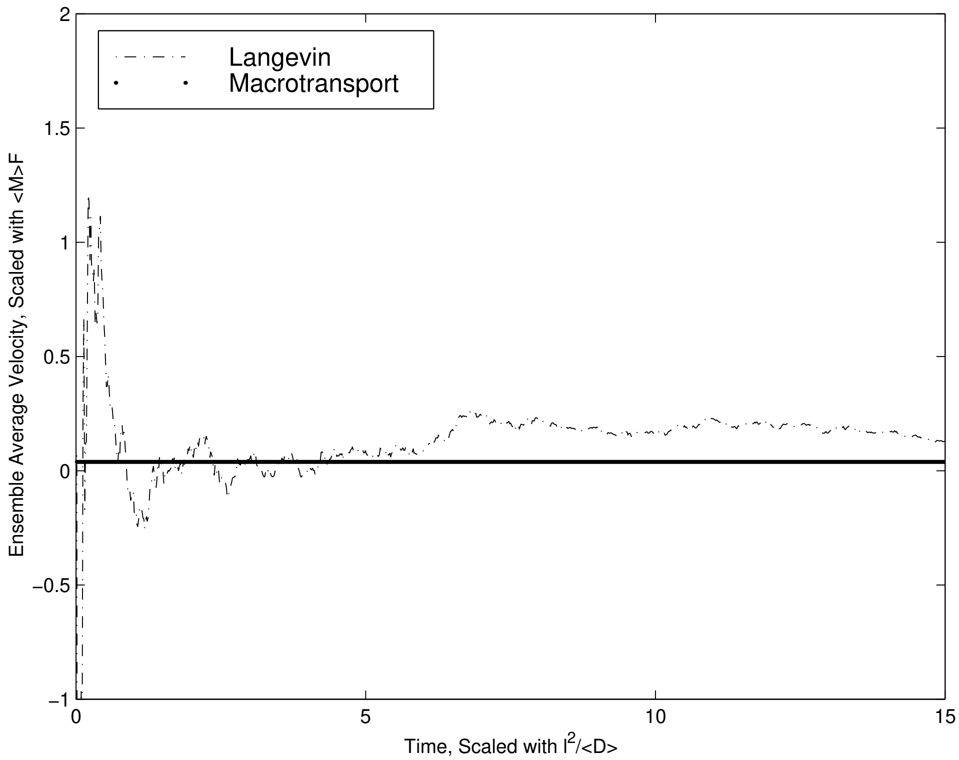


Figure 5: Comparison of the Langevin mean velocity and macrotransport mean velocity for the parametric values $D_1/D_2 = 100$ and $Pe = 0.1$.

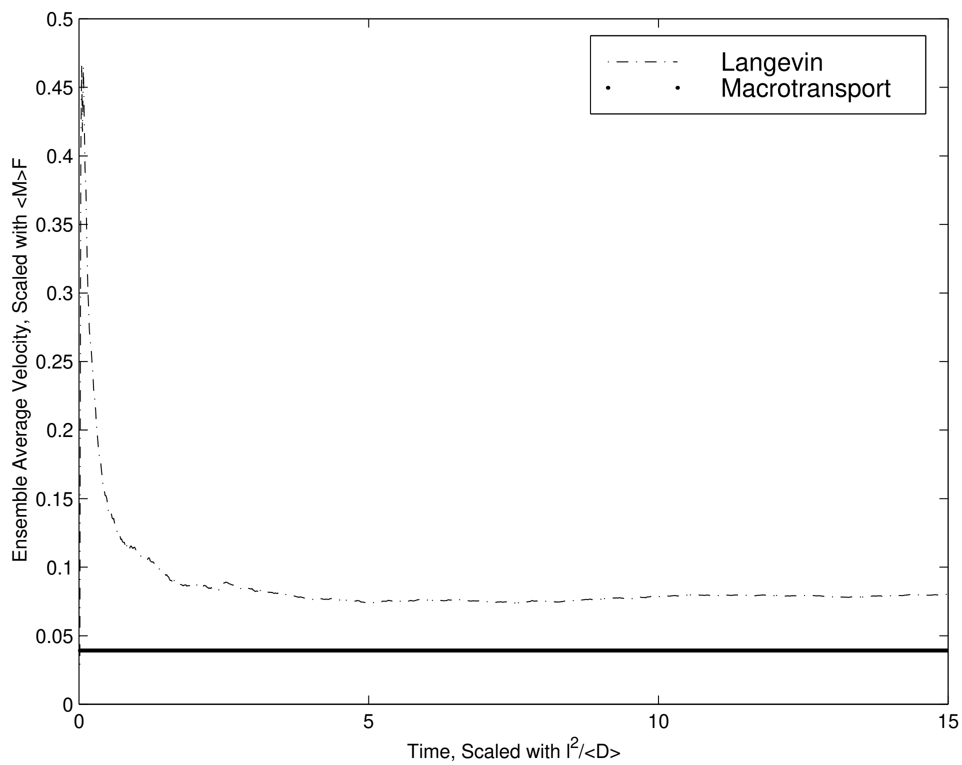


Figure 6: Comparison of the Langevin mean velocity and macrotransport mean velocity for the parametric values $D_1/D_2 = 100$ and $Pe = 5$.