

A DLM/FD/IB Method for Simulating the Cell/Particle Interaction

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308, Mathematics Research Center Building (ori. New Math. Bldg.)

In this talk, a spring model is applied to model the skeleton structure of the red blood cell (RBC) membrane and to study the red blood cell (RBC) rheology in Poiseuille flow with an immersed boundary method. The lateral migration properties of many cells in Poiseuille flow have been investigated. We have also combined the above methodology with a distributed Lagrange multiplier/fictitious domain method (DLM/FD) to simulate the interaction of cells and neutrally buoyant particles in a micro-channel for studying the margination of particles.

Keywords : red blood cells, elastic spring model, margination, fictitious domain method, immersed boundary method

- For material related to this talk, [click here](#).



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