

### PROJECT LEADERS

J Westerweel, BJ Boersma,  
JCR Hunt, G Ooms

### RESEARCH THEME

Complex dynamics of fluids

### PARTICIPANTS

A Markesteijn, S Luding,  
J Westerweel

### COOPERATIONS

Delft University of Technology  
University of Twente  
University of Oxford

### FUNDED

MicroNed  
1<sup>st</sup> 50% 2<sup>nd</sup> - 3<sup>rd</sup> 50%

### START OF THE PROJECT

2004

### INFORMATION

J Westerweel  
015 278 6887  
j.westerweel@tudelft.nl  
www.ahd.tudelft.nl

### PROJECT AIM

The aim of the project is to combine continuum and particle-based numerical methods for the simulation of small-scale microfluidic and nanofluidic flows.

### PROGRESS

A working visit was made to the group of prof. Yeomans (Univ. Oxford). A LB simulation was used to simulate the translocation of polymers in nano-scale pores. A publication is in preparation. A combined CFD/MD approach was developed and implemented for the investigation of thermophoresis of a small particle in a temperature gradient.

### DISSERTATIONS

-

### SCIENTIFIC PUBLICATIONS

-