

## **Announcement**

### **Symposium on Modeling and Simulation Techniques for Microfluidic Applications**

**Sixth U. S. National Congress on Computational Mechanics**

**Hyatt Regency Dearborn  
Dearborn, Michigan, USA**

**August 1-4, 2001**

**<http://www.usnccm.org>**

Symposium Organizers:

N. A. Patankar, J. Lee, S. Hardt

**Talks in this symposium are by invitation only**

#### **Objectives**

This symposium primarily aims at providing a forum to discuss modeling issues in microfluidic applications, computational techniques for these applications, development of efficient numerical algorithms, and the use of simulation methods for designing microfluidic devices in industrial applications. Experimental investigation is a vital tool in verifying the computational models. This symposium encourages collaboration and discussion among researchers with experimental and computational backgrounds. The goal is also to promote free exchange of ideas between specialists from academia and industry.

#### **Topics of interest include:**

- Atomistic and molecular simulations
- Multiscale modeling and simulation of microfluidics
- Experimental and computational investigation of microfluidics
- New computational techniques and algorithms for microfluidics
- Large scale and parallel computation of microfluidics
- Simulation of electrophoretic and electroosmotic flows
- Modeling and simulation of surface-tension-driven flow
- Simulation of biological microfluidic systems
- Simulation of fluid-structure and fluid-field interaction in microfluidic devices
- Role of computational methods in the design of microfluidic devices

## **Symposium organizers**

Neelesh A. Patankar  
Northwestern University  
Department of Mechanical Engineering  
2145 Sheridan Road  
Evanston, IL 60208-3111, USA  
(O) 847-491-3021  
Fax: 847-491-3915  
[n-patankar@northwestern.edu](mailto:n-patankar@northwestern.edu)

Junghoon Lee  
Northwestern University  
Department of Mechanical Engineering  
2145 Sheridan Road  
Evanston, IL 60208-3111, USA  
(O) 847-491-2743  
Fax: 847-491-3915  
[junghoon@northwestern.edu](mailto:junghoon@northwestern.edu)

Steffen Hardt  
Institute of Microtechnology Mainz  
Fluidics and Simulation Department  
Carl-Zeiss-Str. 18-20  
55129 Mainz, Germany  
(O) +49-6131-990-412  
Fax: +49-6131-990-205  
[hardt@imm-mainz.de](mailto:hardt@imm-mainz.de)