



Pingwen Zhang

Education

Ph.D.

Work Experience

Vice Provost, Director
Director,
Executive Deputy Director
Executive Vice Dean
Director

Professor
Associate Professor
Lecturer

Research Fields

Honors and Awards

Member of The Chinese Academy of Sciences.
National Prize of Natural Sciences
Changjiang Scholar,
Feng Kang Prize of Scientific Computing,

Invited Talks

The 2014 SIAM Annual Meeting
7th International Congress on Industrial & Applied Mathematics

Organizers

8th International Congress on Industrial & Applied Mathematics

Modeling and Mathematical Theory of Phase Transitions,

Thematic Program on Multiscale Modeling of Complex Fluids,

Professional Activities

Vice President
Chair
Associate Director
Vice President
Vice President
Associate Director
Associate Director,

Extended Visits

Visiting Research Scientist

Visiting Scholar

Editorial Board Activities

Selected Papers

Modeling and Simulation of Soft Matter (Complex Fluids)

From Microscopic Theory to Macroscopic Theory:

a Systematic Study on Modeling for Liquid Crystals, Archive for Rational Mechanics and Analysis

Numerical Methods for Quasicrystals Journal of Computational Physics

Origin of epitaxies between ordered phases of block copolymers Soft Matter

Spectral method for exploring patterns of diblock copolymers Journal

of Computational Physics

Nucleation of Ordered Phases in Block

Copolymers Physical Review Letters

A numerical method for the study of

nucleation of ordered phases Journal of Computational Physics

An efficient numerical method of Landau-Brazovskii model Journal of

Computational Physics

Numerical simulation of phase separation coupled with crystallization Journal of Chemical Physics

A kinetic-hydrodynamic simulation of microstructure of liquid crystal polymers in

plane shear flow Journal of Non-Newtonian Fluid Mechanics

Modified models of polymer phase separation Physical Review E

Applied Analysis and Numerical Analysis

The Small Deborah Number Limit of the Doi-Onsager Equation to the Ericksen-Leslie Equation Communications on Pure and Applied Mathematics

Well-Posedness of the Ericksen-Leslie System Archive for Rational

Mechanics and Analysis Mathematical analysis of multi-scale models of complex fluids Communications in

Mathematical Sciences,

Local existence for the FENE-dumbbell model of polymeric fluids, Archive for

Rational Mechanics and Analysis

Axial symmetry and classification of stationary solutions of Doi-Onsager equation on the sphere with Maier-Saupe potential Communications in Mathematical Sciences

The structure of equilibrium solutions of one-dimensional Doi equation

Nonlinearity

Analysis of the heterogeneous multiscale method for elliptic homogenization problems **Journal of the American Mathematical Society**

Well-posedness for the dumbbell model of polymeric fluids

Communications in Mathematical Physics

Moving Mesh Methods and Applications

Moving mesh finite element methods for the incompressible Navier-Stokes equations **SIAM Journal on Scientific Computing,**

A moving mesh finite element algorithm for singular problems for two and three space dimensions **Journal Computational Physics**

Moving mesh methods in multiple dimensions based on harmonic maps **Journal**

of Computational Physics