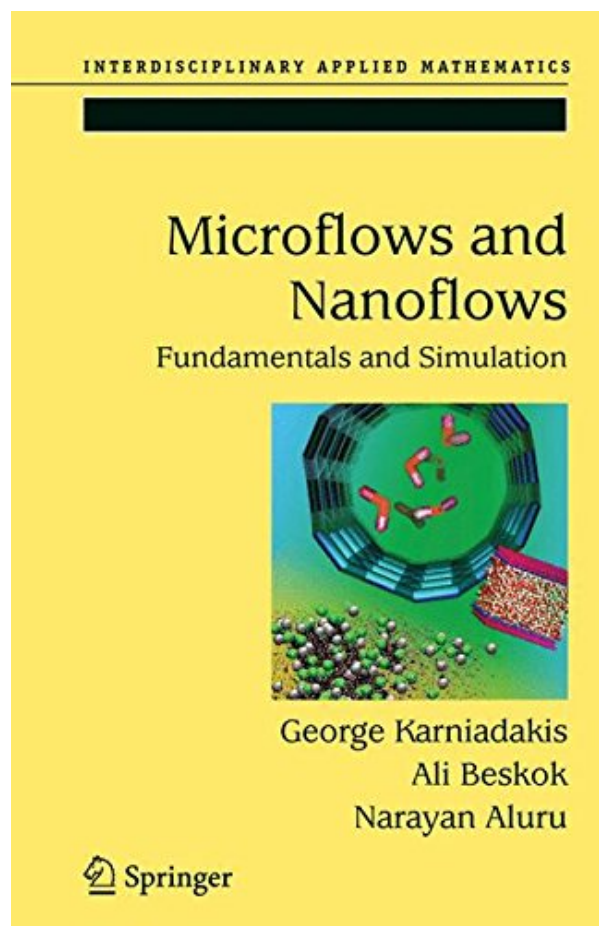


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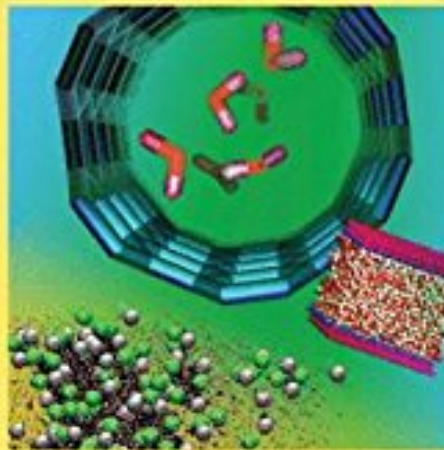
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Fundamentals and Simulation



George Karniadakis
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Review

Reviews for original "Microflows and Nanoflows":

"For those who want to compute flows at the micro scale, this monograph is a must. It describes the state of the art and helps by providing coefficients, such as [are] needed in situations of slip. Those who wonder what new fluid dynamics there is in the microworld are served by the overview of theory and treasures of numerical methods." " European Journal of Mechanics B/Fluids

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"The monograph under review presents a systematical presentation of all questions connected with fundamentals and simulation of microflows and nanoflows. ... The reviewed monograph is the first systematic fundamental presentation of the subject. It is suitable for graduate students and researches in fluid

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Subject area has witnessed explosive growth during the last decade and the technology is progressing at an astronomical rate.

Previous edition was first to focus exclusively on flow physics within microdevices. It sold over 900 copies in North America since 11/01.

New edition is 40 percent longer, with four new chapters on recent topics including Nanofluidics.

- Sales Rank: #2961055 in Books
- Brand: George Karniadakis
- Published on: 2005-07-05
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.75" w x 6.14" l, 2.80 pounds
- Binding: Hardcover
- 818 pages

Features

- Microflows and Nanoflows Fundamentals and Simulation

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Most helpful customer reviews

6 of 7 people found the following review helpful.

The Book on MicroFlows

By Prof. Jay M Khodadadi

I was fortunate enough to be given a chance to read the manuscript of this book about a year before it was published. I was looking for a source of general information on fluid issues in MEMS in order to acquaint myself with the subject. Even though many research papers are out there, the new reader to the field needs to be given a solid starting point. Being a well-written research monograph, this is that solid starting point for those who have a grasp of traditional fluid mechanics and want to enhance that understanding for research into MEMS devices and flows encountered at micron scale and below.

Now that the book is printed, I used it as the main source of reading for an Indep. Study course for a graduate student who started his PhD studies recently.

The book also provides a wealth of references that will assist the reader to get a deeper understanding of the specific subject.

2 of 3 people found the following review helpful.

An excellent book on Micro and Nanoscale flows

By Ali Sabbagh Ziarani

I believe this is an excellent reference for anyone interested in the field of microfluidics and nanofluidics. When I got the first edition, I was always thinking that the addition of a few chapters on nanoscale fluid flows would make this book a comprehensive monograph for people who have background in conventional fluid mechanics and want to understand the micron and submicron fluid flows phenomena. The authors have done this in the new edition "current edition". It is a well-organized book that makes it easy for reader, especially for graduate students who want to start their research in MEMS and NEMS and for professors who are looking for a reference for their course. The book covers all aspects of micro and nanoflows in terms of their characteristics, scaling effects, and methodologies and approaches that can be used for modified continuum and molecular simulations.

4 of 6 people found the following review helpful.

Review of Microflows

By Narayan

This is an excellent book and I recommend this to any one interested in microfluidics, MEMS or nanotechnology. To my knowledge, this is the first book on microfluidics. The chapters on gas flows, electrokinetically driven liquid flows and on numerical methods for continuum and atomistic simulation are very interesting.

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