Preface

Lawrence Sirovich will turn seventy on March 1, 2003. Larry's academic life of over 45 years at the Courant Institute, Brown University, Rockefeller University and the Mount Sinai School of Medicine has touched many people and several disciplines, from fluid dynamics to brain theory. His contributions to the kinetic theory of gases, methods of applied mathematics, theoretical fluid dynamics, hydrodynamic turbulence, the biophysics of vision and the dynamics of neuronal populations, represent the creative work of an outstanding scholar who was stimulated mostly by insatiable curiosity. As a scientist, Larry has consistently offered fresh outlooks on classical and difficult subjects, and moved into new fields effortlessly. He delights in what he knows and does, and sets no artificial boundaries to the range of his inquiry. Among the more than fifty or so Ph.D. students and postdocs that he has mentored, many continue to make first-rate contributions themselves and hold academic positions in the US and elsewhere. Larry's scientific collaborators are numerous and distinguished. Those of us who have known him well will agree that Larry's charm, above all, is his taste, wit, and grace under fire.

Larry has contributed immensely to mathematics publishing. He began his career with Springer by founding the *Applied Mathematical Sciences* series together with Fritz John and Joe LaSalle some 30 years ago. Later he co-founded the *Texts in Applied Mathematics* series and more recently the *Interdisciplinary Applied Mathematics* series. He has overseen with imagination the cross-fertilization of a broad range of ideas in applied mathematics—including his favorite subjects, fluid dynamics and problems in biology. His good taste and judgement as an editor has touched many scientists worldwide, and continues to do so.

This volume represents a token of the affection with which we and the contributors hold him, and marks Larry's influence as well as the continuing commitment to his work.

Ehud Kaplan, Mount Sinai School of Medicine Jerry Marsden, California Institute of Technology Katepalli Sreenivasan, University of Maryland