Preface

We are greatly honored and very pleased to present this special issue of the Journal of Statistical Physics to our teacher, colleague and friend, Grégoire Nicolis, on the occasion of his sixtieth birthday. On behalf of all the contributors to this issue and of the many others whose work and life has been influenced by Grégoire, we take this opportunity to express to him our deepest gratitude for all his contributions to science.

Grégoire Nicolis has made major contributions to nonequilibrium physics and chemistry, addressing the descriptions of self-organization, nonlinear phenomena and, more generally, complex systems. Moreover, as an extraordinary teacher and mentor he has provided—and continue to provide—the inspiration for many young students to undertake a career in science.

Grégoire Nicolis was born in Athens, Greece, where he received his higher education. In 1963, he went to the University of Brussels (ULB) where his thesis advisor was Ilya Prigogine. After postdoctoral work with Stuart Rice at the University of Chicago, he has held a position at ULB since 1968. Grégoire's contributions have been most influencial in the mathematical modeling of nonequilibrium self-organization and complex systems, in the bifurcation analysis of reaction-diffusion systems, in the stochastic and thermodynamic aspects of nonequilibrium systems, and in the study of chaotic dynamical systems. Grégoire Nicolis is the author or coauthor of more than 200 publications covering a broad spectrum of topics in the field. Furthermore, Grégoire has been among the first ones to introduce nonlinear science and chaos theory in the curriculum of the undergraduate studies, generating a great interest for this new field.

Other major contributions of Grégoire Nicolis are the Belgian Center for Nonlinear Phenomena and Complex Systems, the Graduate School "Nonlinear Phenomena and Statistical Mechanics" of ULB, as well as the coordination of international research projects. On behalf of the nonlinear science community, we wish to Grégoire a long, productive, and happy life.

This volume contains essentially the contributions to the NATO Advanced Research Workshop "Nonlinear Science: Dynamics and Stochasticity"

1

held in Brussels from June 30 till July 3, 1999. The Organizing Committee of this Conference was composed of F. Baras (Brussels), R. Dagonnier (Mons), P. Gaspard (Brussels), R. Kapral (Toronto), C. Maes (Leuven), M. Malek Mansour (Brussels), M. Mareschal (Brussels), T. Tél (Budapest), and C. Van den Broeck (Brussels and Diepenbeek). The Conference has been financially supported by NATO (as an ARW codirected by P. Gaspard and T. Tél), the Belgian Federal Office of Scientific Technical and Cultural Affairs, the European Commission, the "Fond National de la Recherche Scientifique," the "Fonds voor Wetenschappelijk Onderzoek–Vlaanderen," the ULB, which are all gratefully acknowledged. Finally, we thank Mrs. I. Saverino and S. Wellens and Mr. P. Kinet for their skillful assistance to the Workshop.

<div align="right">

F. Baras
P. Gaspard
M. Malek Mansour
M. Mareschal
T. Tél
C. Van den Broeck

</div>

I, too, am very pleased to add my congratulations to my old friend Grégoire on his many achievements so far. May this be just a stepping stone in a continuing, long and productive life with good health and much joy both inside and outside science.

<div align="right">

Joel L. Lebowitz
Editor-in-Chief

</div>