

This volume of *Ensaïos Matemáticos* is dedicated to Errico Presutti on the occasion of his 80th birthday.



Errico Presutti (courtesy of Immacolata Merola)

Preface

We are very pleased to present this volume of *Ensaaios Matemáticos*, published by the *Sociedade Brasileira de Matemática*. It is a collective initiative to celebrate the 80th birthday of our dear friend Errico Presutti.

It is not easy to summarize Errico's qualities in a few words. He has always been a wonderful leader and collaborator, who asks pertinent and profound scientific questions, whose answers could take many months or years to resolve. In Errico, depth of thought and tenacity in tackling mathematical problems combine with a great generosity, which make him an example for all of us, and a motivating guide for young people. Everyone around him got used to the usual friendly and boosting welcome "What are you doing now?" whenever arriving to his office or to his home, always open to long conversations.

Errico works mainly in mathematical statistical mechanics in and out of equilibrium, partial differential equations, dynamical systems, and probability. He has a vast list of coauthors, ranging over all these subareas and different countries. Since late 1970s Errico has played a crucial role in the development of probability in Brazil. His role in strengthening the interplay between interacting stochastic systems and problems motivated by non equilibrium statistical mechanics is extremely important and fruitful. The present collection contemplates a small fraction of this, bringing topics that are related to Errico's research, in a combination of survey and research papers.

This volume would not be possible without the essential work of the anonymous referees, to whom we are deeply grateful.

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