Eur. Phys. J. B **50**, 1 (2006)
DOI: 10.1140/epjb/e2006-00147-4

THE EUROPEAN PHYSICAL JOURNAL B

Foreword

Modern Problems in Complexity

In this topical issue of the *European Physical Journal B* on "Modern Problems in Complexity", the reader will find original articles dealing with theoretical and applied problems in the field of equilibrium and nonequilibrium statistical physics.

The articles have been selected from the contributions presented at the 3rd International Conference on News, Expectations and Trends in Statistical Physics, NEXT-SigmaPhi, `www2.polito.it/next-sigmaphi`, that took place on August 13-18, 2005.

The meeting venue was the Orthodox Academy of Crete, nicely located in Kolymbari at the north-western side of the island of Crete in the Chania Prefecture (Greece). The Conference program included a plenary session plus four parallel workshops dedicated to: Information Theory, Physics of Networks, Physics of Risk and Econophysics, and Stochastic Dynamics. The meeting was attended by more than 200 participants[1].

The present volume is organized in eight main sections: High Energy Physics, Hamiltonian Systems, Condensed Matter, Econophysics, Demophysics, Networks, Biophysics, Models.

We wish to thank all the people that in different ways have contributed to the preparation and publication of the present volume, in particular the referees and the editors in chief of the *European Physical Journal B*, H.R. Ott and P. Rudolf.

The editors of the topical issue:

Anna Carbone
John A. Hertz
Giorgio Kaniadakis (Conference Chair)
Marcello Lissia

[1] Another selection of papers presented at the meeting NEXT-SigmaPhi conference, dealing with fundamental issues of Statistical Physics, is collected in a special issue of Physica A.