Preface


In the opening section of StatPhys-Taiwan-1999 at Institute of Physics of Academia Sinica (Taipei) on 10 August 1999, Professor Kuo-Shu Yang, Vice President of Academia Sinica, and Dr. Yeong-Der Yao, Acting Director of Institute of Physics of Academia Sinica, delivered speeches to welcome the participants who came from Armenia, Australia, Chile, China, Germany, France, Hong Kong, Hungary, India, Israel, Italy, Japan, Korea, Russia, Singapore, Switzerland, USA and Taiwan. Professor Pierre Hohenberg, Chairman of the IUPAP Commission on Statistical Physics (C3), introduced the function and activities of IUPAP and C3. Professor F.Y. Wu, Senior Center Scientist of National Center for Theoretical Sciences (NCTS), introduced the activities of NCTS, which is one of the sponsors of StatPhys-Taiwan-1999. After two and a half day scientific activities at Institute of Physics of Academia Sinica (Taipei), in the afternoon of 12 August, participants of StatPhys-Taiwan-1999 took tour buses or trains from Taipei to National Dong Hwa University at Hualien. Besides scientific activities, Local Organization Committee at Hualien also organized a conference tour to Taroko National Park and some other tours for participants and accompanying persons of StatPhys-Taiwan-1999. The meeting ended with a closing address by Professor Kurt Binder.

This volume contains most of the invited papers and some contributed papers presented at StatPhys-Taiwan-1999, which brought together contributors and participants from communities of physics, mathematics, chemistry, biological and social sciences. The papers in this volume not only reflect some important developments of equilibrium and nonequilibrium phase transitions in the 20th century, but also show how the ideas (e.g., fractals, scaling, universality, relaxation time) and methods (e.g., Monte Carlo simulations) of statistical physics have been applied to wider and wider areas of sciences.

Besides expressing our sincere thanks to the sponsors, the speakers, the section chairmen, the referees of contributed papers and participants of StatPhys-Taiwan-1999, we are also grateful to the members of the International Advisory Committee, Organizing Committee, and Local Organization Committee at Hualien for their suggestions, encouragement and contributions. Finally, we should give special thanks to Dr. Da-Shin Lee for organizing various activities at Hualien, Dr. Chai-Yu Lin for editing the conference handbook and transforming many papers to Latex file versions.
for these proceedings, Miss Shun-Huw Hu, Miss Chun-Wei Lin, Miss Bi-Chuan Yeh, and Mr. Wei Liao for secretarial work, and many others for helping various matter of the conference.

While we are editing these proceedings, we are sorry to learn that Professor Ta-You Wu, former President of Academia Sinica (Taipei) and a famous physicist and educator who greatly supported this series of symposia on statistical physics, passed away on 3 March 2000. We would like to dedicate these proceedings to the memory of Professor Ta-You Wu (1907–2000).

Chin-Kun Hu* and K.-t. Leung
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* Fax: + 886-2-2783-4187.
E-mail addresses: huck@phys.sinica.edu.tw (C.-K. Hu), leungkt@phys.sinica.edu.tw (K.-t. Leung).