Preface

Copulas are mathematical objects that fully capture the dependence structure among random variables and hence, offer a great flexibility in building multivariate stochastic models. Since their introduction in the early 50s, copulas have gained a lot of popularity in several fields of applied mathematics, like finance, insurance and reliability theory. Nowadays, they represent a well-recognized tool for market and credit models, aggregation of risks, portfolio selection, etc.

Moreover, such a large interest in the applications of copulas have spurred researchers and scientists in investigating and developing new theoretical methods and tools for handling uncertainty in practical situations.

The workshop on “Copula Theory and Its Applications”, which took place in Warsaw (Poland) on 25th–26th September 2009, represented a good opportunity for intensive exchange of ideas about recent developments and achievements that can contribute to the general development of the field. The talks presented at this event have focused on several interesting theoretical problems as well as empirical applications, especially to finance, insurance and reliability.

In order to make all these contributions available to a larger audience, we have planned to prepare a volume collecting selected contributions of the workshops and several original survey papers about important aspects of copula theory and its applications.

The book is divided into two main parts: Part I Surveys contains 11 manuscripts giving an up-to-date account of some aspects of copula models. Part II Contributions collects an extended version of 6 talks selected from presented at the workshop in Warsaw.

Our special thanks go to the authors for their willingness to contribute to this volume, and to our colleagues Erich Peter Klement, Radko Mesiar, José Juan Quesada Molina, Carlo Sempi, and Fabio Spizzichino, who, as members of the Scientific Committee of the workshop, contributed to the scientific success of this event.

Every paper has been submitted to, at least, one referee: we want to thank all of them for their collaboration.

The professional work of the Organizing Committee was greatly appreciated, as well as the support of the co-sponsors of this conference.

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Fabrizio Durante
Wolfgang Härdle
Piotr Jaworski
Tomasz Rychlik
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