

Preface

The 21st International Conference on Discovery Science (DS 2018) was held in Limassol, Cyprus, during October 29–31, 2018. The conference was co-located with the International Symposium on Methodologies for Intelligent Systems (ISMIS 2018), which was already in its 24th year. This volume contains the papers presented at the 21st International Conference on Discovery Science, which received 71 international submissions. Each submission was reviewed by at least three committee members. The committee decided to accept 30 papers. This resulted in an acceptance rate of 42%. Invited talks were shared between the two meetings. The invited talks for DS 2018 were “Automating Predictive Modeling and Knowledge Discovery” by Ioannis Tsamardinos from the University of Crete, and “Emojis, Sentiment, and Stance in Social Media” by Petra Kralj Novak from the Jožef Stefan Institute. The invited talks for ISMIS 2018 were “Artificial Intelligence and the Industrial Knowledge Graph” by Michael May from Siemens, Germany, “Mining Big and Complex Data” by Sašo Džeroski from the Jozef Stefan Institute, Slovenia, and “Bridging the Gap Between Data Diversity and Data Dependencies” by Jean-Marc Petit from INSA Lyon and Université de Lyon, France. Abstracts of all five invited talks are included in these proceedings.

We would like to thank all the authors of submitted papers, the Program Committee members, and the additional reviewers for their efforts in evaluating the submitted papers, as well as the invited speakers. We are grateful to Nathalie Japkowicz and Jiming Liu, ISMIS program co-chairs (together with Michelangelo Ceci), for ensuring the smooth coordination with ISMIS and myriad other organizational aspects. We would also like to thank the members of the extended DS Steering Committee (consisting of past organizers of the DS conference) for supporting the decision to organize DS jointly with ISMIS this year, and in particular Sašo Džeroski for supporting us in bringing this decision to life. We are grateful to the people behind EasyChair for making the system available free of charge. It was an essential tool in the paper submission and evaluation process, as well as in the preparation of the Springer proceedings. We thank Springer for their continuing support for Discovery Science. The joint event DS/ISMIS 2018 was organized under the auspices of the University of Cyprus. Financial support was generously provided by the Cyprus Tourism Organization and Austrian Airlines. Finally, we are indebted to all conference participants, who contributed to making this momentous event a worthwhile endeavor for all involved.

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Larisa Soldatova
Joaquin Vanschoren
Michelangelo Ceci
George Papadopoulos