

Preface

The International Conference on Complex Networks and Their Applications has been initiated in 2011. The idea was to support the rise of the scientific community that studies the world through the lens of networks. Initiated as a single-track workshop, it has grown gradually to become one of the major international events in network science. Every year, it brings together researchers from a wide variety of scientific background ranging from economy, medicine, biology, sociology, computer science, physics and many others in order to review current state of the field and formulate new directions. The great diversity of its participants allows for crossfertilization between fundamental issues and innovative applications.

This volume of proceedings contains a selection of papers presented during the sixth edition, hosted by the University of Lyon 2 (France), from 29 November to 01 December 2017. It is organized into 15 sections reflecting the multiple aspects of complex network issues.

We received 345 submissions originating from more than 60 countries around the world. Each of them has been peer reviewed by three independent reviewers from our international programme committee in order to ensure high quality of contributed material as well as adherence to conference topics. After the review process, 103 papers were selected to be included in the proceedings.

Each edition of the conference represents a challenge that cannot be successfully achieved without the deep involvement of plenty of people, institutions and sponsors. We address sincere thanks to all of them for their support and to the University of Lyon for making us so welcome.

We are very grateful to our keynote speakers for their plenary lectures covering different areas of the conference. The talk of Alex Arenas (Universitat Rovirai Virgili, Spain) dealt with the identification of the most versatile nodes in highly multidimensional data. The presentation given by Santo Fortunato (Indiana University, USA) focused on the community structure in complex networks. Jennifer Neville (Purdue University, USA) gave a talk on ‘The impact of network structure on relational machine learning’ and Daniele Quercia (Nokia Bell Labs,

UK) presented a talk entitled ‘Good City Life’. The talk given by Frank Schweitzer (ETH Zurich, Switzerland) was about ‘Spreading influence in social networks: From link-centric to nodecentric models’ and Katharina A. Zweig (TU Kaiserslautern, Germany) covered The Network Analysis Literacy from a socio-informatics perspective. The challenges that they tackled in their talks are without a doubt one of the reasons for the success of COMPLEX NETWORKS 2017.

Two speakers gave very illuminating tutorials that drew many conference participants. These talks have been held on 28 November 2017. Ginestra Bianconi (Queen Mary University, UK) gave a lecture entitled ‘Network theory: The challenges that lies ahead’ and Francesco Bonchi (ISI Foundation, Italy) delivered a lecture on mining information propagation data.

We record our thanks to our fellow members of the Organizing Committee. Huijuan Wang (TU Delft, Netherlands) and Hamamache Kheddouci (Lyon 1, France), the poster chairs for arranging the poster sessions program and the editing the book of abstracts. Jinhu Lü, the tutorial chair for managing the tutorials. Bruno Gonçalves (New York University, USA), Carlo Piccardi (Politecnico di Milano, Italy) and Feng Xia (Dalian University of Technology, China), the publicity chairs for encouraging participation from, respectively, America, Europe and Asia. Great thanks to Eric Fleury, the sponsor chair who dedicated his precious time for securing financial support.

We extend our thanks to the Milan team (University of Milan, Italy): Sabrina Gaito, the publication chair, Matteo Zignani, the web chair and Christian Quadri, the submission chair for the incredible work they have done, in maintaining the website and the editing the proceedings and the book of abstract.

We would also like to record our appreciation for the work of the local Arrangement Committee at the University of Lyon 2, Lounes Bentaha, Chantal Cherifi and Jannik Laval in making all the excellent logistical arrangements for the conference.

We also acknowledge the important contributions of the DISP Lab and the Pole RTI members at Lyon 2 University, in particular, Yacine Ouzrout, Aicha Sekhari and Nejib Moalla. Their efforts made a great contribution to the success of the conference.

We are also indebted to our partners, Alessandro Fellegara, Alessandro Egro and their team (Tribe Communication) for their passion and patience in designing the visual identity of the Conference.

We would also like to express our deepest appreciation to all those who have helped us for the success of this meeting. Sincere thanks to the contributors, the success of the technical program would not be possible without their creativity. Finally, we would like to express our most sincere thanks to the Program Committee members for their huge efforts within very short time.

Last but not least, we would like to express our gratitude for the Springer Nature team for their editorial support throughout the publication process. We hope that

this volume makes a useful contribution to issues surrounding the fascinating world of complex networks and that you enjoy the papers as much as we enjoyed organizing the conference and putting this collection of papers together.

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Chantal Cherifi
Hocine Cherifi
Márton Karsai
Mirco Musolesi

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