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Graph-Based Representations in Pattern Recognition

12th IAPR-TC-15 International Workshop, GbRPR 2019
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Proceedings

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Preface

This volume contains the papers presented at the 12th IAPR-TC15 Workshop on Graph-Based Representations in Pattern Recognition (GbR) held during June 19–21, 2019, in Tours.

In total 22 papers were accepted and presented orally. Each submission was reviewed by at least two and usually three Program Committee members. The program also included two very interesting invited talks: one by Christine Solnon, from the INSA of Lyon, who presented a talk entitled "Experimental Evaluation of Subgraph Isomorphism Solvers"; one by Marco Gori, from the University of Siena, who presented a talk entitled "Local Propagation in Graphical Neural Networks."

Accepted papers mainly cover the following topics: graph edit distance, graph matching, machine learning for graph problems, network and graph embedding, spectral graph problems, and parallel algorithms for graph problems. Numerous applications have been addressed with the help of graph-based representations, ranging from fMRI applications, image and video processing, to social networks analysis, document analysis, chemio-informatics and classification problems.

Authors of selected papers were invited to submit an extended version to a Special Issue on "Advances in Graph-based Representations for Pattern Recognition" to be published in *Pattern Recognition Letters* in 2020.

The GbR 2019 workshop was hosted by the Computer Science Laboratory of University of Tours in France (LIFAT). We acknowledge the generous support from the city of Tours, the French Region Centre Val de Loire, the University of Tours and the Engineering School of the University, the research federation ICVL, and the company APSIDE. We would like to thank all the Program Committee members for their help in the review process. We also wish to thank all the local organizers. Without their contributions, GbR 2019 would not have been successful. Finally, we express our appreciation to Springer for publishing this volume.

June 2019

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