Lecture Notes in Artificial Intelligence   4923

Subseries of Lecture Notes in Computer Science

Sadok Ben Yahia   Engelbert Mephu Nguifo
Radim Belohlavek (Eds.)

Concept Lattices and Their Applications

Fourth International Conference, CLA 2006
Tunis, Tunisia, October 30–November 1, 2006
Selected Papers

Springer

Sadok Ben Yahia
El Manar University of Tunis
Department of Computer Science
Campus Universitaire, 1060 Tunis, Tunisia
E-mail: sadok.benyahia@fst.rnu.tn

Engelbert Mephu Nguifo
Université d'Artois–IUT de Lens
Lens Computer Science Research Centre, CRIL CNRS FRE 2499
Rue de l'Université SP 16, 62307 Lens Cedex, France
E-mail: mephu@cril.univ-artois.fr

Radim Belohlavek
State University of New York at Binghamton
P.O. Box 6000, Binghamton, NY 13902–6000, USA
E-mail: rbelohla@binghamton.edu
and
Palacký University
Department of Computer Science
Tomkova 40, 779 00 Olomouc, Czech Republic

Preface

This volume contains selected papers from CLA 2006, the 4th International Conference on Concept Lattices and Their Applications. CLA 2006 was held in Hammamet, Tunisia, from October 30 to November 1, 2006, and was organized jointly by the El-Manar University (Computer Science Department, Faculty of Sciences), Tunis, and the Université Centrale, Tunis. The main areas of interest relevant to CLA include formal concept analysis (FCA), foundations of FCA, mathematical structures related to FCA, relationship of FCA to other methods of data analysis, visualization of data in FCA, and applications of FCA.

The conference received 41 submitted papers. This volume contains 18 papers (13 long, 5 short) selected from the submitted papers which were accepted and presented at the conference (selection rate 0.44). Contributions to CLA 2006 were refereed by at least three reviewers on the basis of their originality, quality, significance, and presentation. When one of the Program Chairs was involved in a paper, the reviewing process of this paper was managed independently by the other chair. When both of the Program Chairs were co-authors, Radim Belohlavek managed the reviewing process of those papers.

The program of CLA 2006 also included four invited talks by Rudolf Wille (TU-Darmstadt, Germany), Claudio Carpineto (FUB, Rome, Italy), Peter Eklund (University of Wollongong, Australia), Amedeo Napoli (LORIA, Nancy, France), and a tutorial by Radim Belohlavek (Palacky University, Olomouc, Czech Republic). Three papers based on the invited talks are a part of this volume.

We would like to express our thanks to the authors who submitted their papers to CLA 2006, to the invited speakers, to the members of Program Committee who managed the review of papers, to the additional reviewers, to the members of the Organization Committee, as well as to the conference attendees, who all helped make CLA 2006 a successful event.

November 2007

Sadok Ben Yahia
Engelbert Mephu Nguifo
Radim Belohlavek

Organization

CLA 2006 was organized by Faculté des Sciences de Tunis of El Manar University and by Université Centrale de Tunis.

Steering Committee

Radim Belohlavek	State University of New York at Binghamton, USA
Sadok Ben Yahia	Faculté des Sciences de Tunis, Tunisia
Engelbert Mephu Nguifo	CRIL CNRS FRE 2499 - IUT de Lens, France
Václav Snášel	VSB-TU Ostrava, Czech Republic

Program Chairs

Sadok Ben Yahia	Faculté des Sciences de Tunis, Tunisia
Engelbert Mephu Nguifo	CRIL CNRS FRE 2499 - IUT de Lens, France

Program Committee

Radim Belohlavek	State University of New York at Binghamton, USA
Anne Berry	LIMOS, Université de Clermont Ferrand, France
Laurent Chaudron	Onera-CERT, France
Claudio Carpineto	Fondazione Ugo Bordoni, Rome, Italy
Richard J. Cole	University of Queensland, Brisbane, Australia
Jean Diatta	Université de la Réunion, France
Vincent Duquenne	Université Pierre et Marie Curie, Paris, France
Peter Eklund	University of Wollongong, Australia
Samir Elloumi	Faculté des Sciences de Tunis, Tunisia
Mohamed M. Gammoudi	ISG, Kairouan, Tunisia
Gemma C. Garriga	Technical University of Catalonia, Spain
Ali Jaoua	Qatar University, Qatar
Stanislav Krajči	UPJS Kosice, Slovakia
Marzena Kryszkiewicz	Warsaw Institute of Technology, Poland
Sergei Kuznetsov	VINITI and RSUH Moscow, Russia
Michel Liquière	LIRMM, Montpellier, France
Mondher Maddouri	INSAT, Tunis, Tunisia
Rokia Missaoui	UQO, Gatineau, Canada
Amedeo Napoli	LORIA, Nancy, France

Lhouari Nourine	LIMOS, Université de Clermont Ferrand, France
Sergei Obiedkov	University of Pretoria, South Africa
Habib Ounelli	Faculty of Sciences, Tunis, Tunisia
Uta Priss	Napier University, Edinburgh, UK
Olivier Raynaud	LIMOS, Clermont-Ferrand, France
Yahya Slimani	Faculty of Sciences, Tunis, Tunisia
Václav Snášel	VSB-TU Ostrava, Czech Republic
Henry Soldano	LIPN, Paris 13, France
Petko Valtchev	DIRO, Université de Montréal, Canada
Vilem Vychodil	State University of New York at Binghamton, USA
Ezzeddine Zagrouba	ISI, Tunis, Tunisia
Mohammed Zaki	Rensselaer Polytechnic Institute, NY, USA

Organization Committee

Samir Elloumi (Chair)	Faculté des Sciences de Tunis, Tunisia
Khedija Arour	INSAT, Tunis, Tunisia
Olivier Couturier	CRIL CNRS FRE 2499 - IUT de Lens, France
Helmi El Kamel	Université Centrale, Tunis, Tunisia
Ghada Gasmi	Faculté des Sciences de Tunis, Tunisia
Tarek Hamrouni	Faculté des Sciences de Tunis, Tunisia
Tienté Hsu	LGI2A - IUT de Lens, France
Nicolas Huicq	IUT de Lens, France
Chiraz Latiri	Ecole Supérieure de Commerce, Manouba
Mondher Maddouri	INSAT, Tunis, Tunisia
Laurent Masse	IUT de Lens, France
Franck Paszkowski	IUT de Lens, France
Moncef Temani	ISI, Tunis, Tunisia
Sami Zghal	Faculté des Sciences de Tunis, Tunisia

Additional Reviewers

Khedija Arour	INSAT, Tunis, Tunisia
Sondess Ben Tekaya	Faculté des Sciences de Tunis, Tunisia
Chaima Ben Youssef	Faculté des Sciences de Tunis, Tunisia
Karell Bertet	L2I, La Rochelle, France
Vicky Choi	Virginia Tech, USA
Richard Emilion	MAPMO, Université d'Orléans, France
Sébastien Ferré	IRISA, Rennes, France
Céline Fiot	LIRMM, Montpellier, France
Huaiguo Fu	University College Dublin, Ireland
Ghada Gasmi	Faculté des Sciences de Tunis, Tunisia
Alain Gély	LIMOS, Clermont Ferrand, France

Tarek Hamrouni	Faculté des Sciences de Tunis, Tunisia
Leonard Kwuida	University of Bern, Swizerland
Raoul Medina	LIMOS, Clermont Ferrand, France
Pascal Poncelet	LGI2P, École des mines d'Alès, France
Francois Rioult	GREYC, Caen, France
Gabriel Semanišin	UPJS Kosice, Slovak Republic

Sponsoring Institutions

Université El-Manar, Tunis
Université Centrale, Tunis
Ambassade de France, Tunis
Centre de Calcul EL KHAWARIZMI
INSAT, Tunis
Institut Supérieur d'Informatique (ISI), Tunis
IUT de Lens, France
UTM, Tunis
VERMEG, Tunis

Table of Contents

Applications