Record Nr. UNINA9910484303303321 Formal concept analysis: 8th International Conference, ICFCA 2010, **Titolo** Agadir, Morocco, March 15-18, 2010 : proceedings / / Leonard Kwuida, Bars Sertkaya (eds.) New York, : Springer, 2010 Pubbl/distr/stampa **ISBN** 1-280-38579-0 9786613563712 3-642-11928-X [1st ed. 2010.] Edizione Descrizione fisica 1 online resource (XII, 340 p. 91 illus.) Lecture notes in computer science. Lecture notes in artificial Collana intelligence, . 0302-9743 : : 5986 LNCS sublibrary. SL 7, Artificial intelligence Altri autori (Persone) KwuidaLeonard SertkayaBaris 512 Disciplina Comprehension (Theory of knowledge) Soggetti Artificial intelligence - Mathematical models Information theory Lattice theory Logic, Symbolic and mathematical Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Invited Talks -- About the Enumeration Algorithms of Closed Sets --Mathematics Presenting, Reflecting, Judging -- The Role of Concept, Context, and Component for Dependable Software Development --Statistical Methods for Data Mining and Knowledge Discovery --Regular Contributions -- Formal Concept Analysis of Two-Dimensional Convex Continuum Structures -- Counting of Moore Families for n=7 -- Lattice Drawings and Morphisms -- Approximations in Concept Lattices -- Hardness of Enumerating Pseudo-intents in the Lectic Order -- On Links between Concept Lattices and Related Complexity Problems -- An Algorithm for Extracting Rare Concepts with Concise Intents -- Conditional Functional Dependencies: An FCA Point of View -- Constrained Closed Datacubes -- Conceptual Navigation in RDF

Graphs with SPARQL-Like Queries -- An Approach to Exploring

Description Logic Knowledge Bases -- On Categorial Grammars as Logical Information Systems -- Describing Role Models in Terms of Formal Concept Analysis -- Approaches to the Selection of Relevant Concepts in the Case of Noisy Data -- Concept Analysis as a Framework for Mining Functional Features from Legacy Code -- Concept Neighbourhoods in Lexical Databases -- A Survey of Hybrid Representations of Concept Lattices in Conceptual Knowledge Processing -- History -- Two Basic Algorithms in Concept Analysis.

## Sommario/riassunto

This volume contains selected papers presented at ICFCA 2010, the 8th Int- national Conference on Formal Concept Analysis. The ICFCA conference series aims to be the prime forum for dissemination of advances in applied lattice and order theory, and in particular advances in theory and applications of Formal Concept Analysis. Formal Concept Analysis (FCA) is a ?eld of applied mathematics with its mathematical root in order theory, in particular the theory of complete lattices. Researchershadlongbeenawareofthefactthatthese? eldshavemanypotential applications.FCAemergedinthe1980sfrome? ortstorestructurelattice theory to promote better communication between lattice theorists and potential users of lattice theory. The key theme was the mathematical formalization of c- cept and conceptual hierarchy. Since then, the ?eld has developed into a growing research area in its own right with a thriving theoretical community and an creasingnumberofapplicationsindataandknowledgeprocessingincluding data visualization, information retrieval, machine learning, sofware engineering, data analysis, data mining in Web 2.0, analysis of social networks, concept graphs, contextual logic and description logics. ICFCA 2010 took place during March 15–18, 2010 in Agadir, Morocco. We received 37 high-quality submissions out of which 17 were chosen as regular papers in these proceedings after a competitive selection process. Less mature works that were still considered valuable for discussion at the conference were collected in the supplementary proceedings. The papers in the present volume coveradvancesinvariousaspectsofFCArangingfromitstheoreticalfoundati ons to its applications in numerous other ?elds. In addition to the regular papers.

thisvolumealsocontainsfourkeynotepapersarisingfromtheseveninvitedtal ks given at the conference. We are also delighted to include a reprint of Bernhard Ganter'sseminalpaper on hiswell-knownalgorithmfor enumerating closedsets.