Advances In Knowledge Discovery And Data Mining American Association For Artificial Intelligence

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Advances in Knowledge Discovery and Data Mining Jian Pei 2013-04-06 The two-volume set LNAI 7818 + LNAI 7819 constitutes the refereed proceedings of the 17th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2013, held in Gold Coast, Australia, in April 2013. The total of 98 papers presented in these proceedings was carefully reviewed and selected from 363 submissions. They cover the general fields of data mining and KDD extensively, including pattern mining, classification, graph mining, applications, machine learning, feature selection and dimensionality reduction, multiple information sources mining, social networks, clustering, text mining, text classification, imbalanced data, privacy-preserving data mining, recommendation, multimedia data mining, stream data mining, data preprocessing and representation.

Urban Informatics Wenzhong Shi 2021-04-06 This open access book is the first to systematically introduce the principles of urban informatics and its application to every aspect of the city that involves its functioning, control, management, and future planning. It introduces new models and tools being developed to understand and implement these technologies that enable cities to function more efficiently – to become 'smart' and 'sustainable'. The smart city has quickly emerged as computers have become ever smaller to the point where they can be embedded into the very fabric of the city, as well as being central to new ways in which the population can communicate and act. When cities are wired in this way, they have the potential to become sentient and responsive, generating massive streams of 'big' data in real time as well as providing immense opportunities for extracting new forms of urban data through crowdsourcing. This book offers a comprehensive review of the methods that form the core of urban informatics from various kinds of urban remote sensing to new approaches to machine learning and statistical modelling. It provides a detailed technical introduction to the wide array of tools information scientists need to develop the key urban analytics that are fundamental to learning about the smart city, and it outlines ways in which these tools can be used to inform design and policy so that cities can become more efficient with a greater concern for environment and equity.

Advances in Knowledge Discovery and Data Mining Hady W. Lauw 2020 The two-volume set LNAI 12084 and 12085 constitutes the thoroughly refereed proceedings of the 24th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2020, which was due to be held in Singapore, in May 2020. The conference was held virtually due to the COVID-19 pandemic. The 135 full papers presented were carefully reviewed and selected from 628 submissions. The papers present new ideas, original research results, and practical development experiences from all KDD related areas, including data mining, data warehousing, machine learning, artificial intelligence, databases, statistics, knowledge engineering, visualization, decision-making systems, and the emerging applications. They are organized in the following topical sections: recommender systems; classification; clustering; mining social networks; representation learning and embedding; mining behavioral data; deep learning; feature extraction and selection; human, domain, organizational and social factors in data mining; mining sequential data; mining imbalanced data; association; privacy and security; supervised learning; novel algorithms; mining multi-media/multi-dimensional data; application; mining graph and network data; anomaly detection and analytics; mining spatial, temporal, unstructured and semi-structured data; sentiment analysis; statistical/graphical model; multi-source/distributed/parallel/cloud computing.

Advances in Knowledge Discovery and Data Mining Takashi Washio 2008

Advances in Knowledge Discovery and Data Mining Vincent S. Tseng 2014-05-23 The two-volume set LNAI 8443 + LNAI 8444 constitutes the refereed proceedings of the 18th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2014, held in Tainan, Taiwan, in May 2014. The 40 full papers and the 60 short papers presented within these proceedings were carefully reviewed and selected from 371 submissions. They cover the general fields of pattern mining; social network and social media; classification; graph and network mining; applications; privacy preserving; recommendation; feature selection and reduction; machine learning; temporal and spatial data; novel algorithms; clustering; biomedical data mining; stream mining; outlier and anomaly detection; multi-sources mining; and unstructured data and text mining.

Advances in Knowledge Discovery and Data Mining Qiang Yang 2019-04-03 The three-volume set LNAI 11439, 11440, and 11441 constitutes the thoroughly refereed proceedings of the 23rd Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2019, held in Macau, China, in April 2019. The 137 full papers presented were carefully reviewed and selected from 542 submissions. The papers present new ideas, original research results, and practical development experiences from all KDD related areas, including data mining, data warehousing, machine learning, artificial intelligence, databases, statistics, knowledge engineering, visualization, decision-making systems, and the emerging applications. They are organized in the following topical sections: classification and supervised learning; text and opinion mining; spatio-temporal and stream data analysis; factor and tensor analysis; healthcare, bioinformatics and related topics; clustering and anomaly detection; deep learning models and applications; sequential pattern mining; weakly supervised learning; recommender system; social network and graph mining; data pre-processing and featureselection; representation learning and embedding; mining unstructured and semi-structured data; behavioral data mining; visual data mining; and knowledge graph and interpretable data mining.

Soft Computing for Knowledge Discovery and Data Mining Oded Maimon 2007-10-25 Data Mining is the science and technology of exploring large and complex bodies of data in order to discover useful patterns. It is extremely important because it enables modeling and knowledge extraction from abundant data availability. This book introduces soft computing methods extending the envelope of problems that data mining can solve efficiently. It presents practical soft-computing approaches in data mining and includes various real-world case studies with detailed results.

Relational Data Mining Saso Dzeroski 2013-04-17 As the first book devoted to relational data mining, this coherently written multi-author monograph provides a thorough introduction and systematic overview of the area. The first part introduces the reader to the basics and principles of classical knowledge discovery in databases and inductive logic programming; subsequent chapters by leading experts assess the techniques in relational data mining in a principled and comprehensive way; finally, three chapters deal with advanced applications in various fields and refer the reader to resources for relational data mining. This book will become a valuable source of reference for R&D professionals active in relational data mining. Students as well as IT professionals and ambitioned practitioners interested in learning about relational data mining will appreciate the book as a useful text and gentle introduction to this exciting new field.

Advances in Knowledge Discovery and Data Mining Joshua Zhexue Huang 2011-05-09 The two-volume set LNAI 6634 and 6635 constitutes the refereed proceedings of the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2011, held in Shenzhen, China in May 2011. The total of 32 revised full papers and 58 revised short papers were carefully reviewed and selected from 331 submissions. The papers present new ideas, original research results, and practical development experiences from all KDD-related areas including data mining, machine learning, artificial intelligence and pattern recognition, data warehousing and databases, statistics, knowledge engineering, behavior sciences, visualization, and emerging areas such as social network analysis.

Advances in Knowledge Discovery and Data Mining Zhi-Hua Zhou 2007-04-27 This book constitutes the refereed proceedings of the 11th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2007, held in Nanjing, China, May 2007. It covers new ideas, original research results and practical development experiences from all KDD-related areas including data mining, machine learning, data warehousing, data visualization, automatic scientific discovery, knowledge acquisition and knowledge-based systems.

Advances in Distributed and Parallel Knowledge Discovery Hillol Kargupta 2000 This book presents introductions to DKD and PKD, extensive reviews of the field, and state-of-the-art techniques. Foreword by Vipin Kumar Knowledge discovery and data mining (KDD) deals with the problem of extracting interesting associations, classifiers, clusters, and other patterns from data. The emergence of network-based distributed computing environments has introduced an important new dimension to this problem--distributed sources of data. Traditional centralized KDD typically requires central aggregation of distributed data, which may not always be feasible because of limited network bandwidth, security concerns, scalability problems, and other practical issues. Distributed knowledge discovery (DKD) works with the merger of communication and computation by analyzing data in a distributed fashion. This technology is particularly useful for large heterogeneous distributed environments such as the Internet, intranets, mobile computing environments, and sensor-networks.When the data sets are large, scaling up the speed of the KDD process is crucial. Parallel knowledge discovery (PKD) techniques addresses this problem by using high-performance multiprocessor machines. This book presents introductions to DKD and PKD, extensive reviews of the field, and state-of-the-art techniques. Contributors Rakesh Agrawal, Khaled AlSabti, Stuart Bailey, Philip Chan, David Cheung, Vincent Cho, Joydeep Ghosh, Robert Grossman, Yi-ke Guo, John Hale, John Hall, Daryl Hershberger, Ching-Tien Ho, Erik Johnson, Chris Jones, Chandrika Kamath, Hillol Kargupta, Charles Lo, Balinder Malhi, Ron Musick, Vincent Ng, Byung-Hoon Park, Srinivasan Parthasarathy, Andreas Prodromidis, Foster Provost, Jian Pun, Ashok Ramu, Sanjay Ranka, Mahesh Sreenivas, Salvatore Stolfo, Ramesh Subramonian, Janjao Sutiwaraphun, Kagan Tummer, Andrei Turinsky, Beat Wüthrich, Mohammed Zaki, Joshua Zhang

Data Mining and Knowledge Discovery with Evolutionary Algorithms Alex A. Freitas 2013-11-11 This book integrates two areas of computer science, namely data mining and evolutionary algorithms. Both these areas have become increasingly popular in the last few years, and their integration is currently an active research area. In general, data mining consists of extracting knowledge from data. The motivation for applying evolutionary algorithms to data mining is that evolutionary algorithms are robust search methods which perform a global search in the space of candidate solutions. This book emphasizes the importance of discovering comprehensible, interesting knowledge, which is potentially useful for intelligent decision making. The text explains both basic concepts and advanced topics

Advances in Knowledge Discovery and Data Mining Kamal Karlapalem 2021-05-08 The 3-volume set LNAI 12712-12714 constitutes the proceedings of the 25th Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2021, which was held during May 11-14, 2021. The 157 papers included in the proceedings were carefully reviewed and selected from a total of 628 submissions. They were organized in topical sections as follows: Part I: Applications of knowledge discovery and data mining of specialized data; Part II: Classical data mining; data mining theory and principles; recommender systems; and text analytics; Part III: Representation learning and embedding, and learning from data.

Knowledge Discovery and Data Mining: Challenges and Realities Zhu, Xingquan 2007-04-30 "This book provides a focal point for research and real-world data mining practitioners that advance knowledge discovery from low-quality data; it presents in-depth experiences and methodologies, providing theoretical and empirical guidance to users who have suffered from underlying low-quality data. Contributions also focus on interdisciplinary collaborations among data quality, data processing, data mining, data privacy, and data sharing"--Provided by publisher.

Advances in Knowledge Discovery and Data Mining Thanaruk Theeramunkong 2009-04-20 ThePaci?c-AsiaConferenceonKnowledgeDiscoveryandData hasbeen held every year from 1997. PAKDD 2009, the 13th in the series, was held in Bangkok, Thailand during April 27-30, 2008. PAKDD is a major inter- tional conference in the areas of data mining (DM) and knowledge discovery in database (KDD). It provides an international forum for researchers and ind- try practitioners to share their new ideas, original research results and prac- cal development experiences from all KDD-related areas including data mining, data warehousing, machine learning, databases, statistics, knowledge acqui- tion and automatic scienti?c discovery, data visualization, causal induction and knowledge-based systems. ForPAKDD2009,wereceived338researchpapersfromvariouscountriesand regions in Asia, Australia, North America, South America, Europe, and Africa. Every submission was rigorously reviewed by at least three reviewers with a doubleblindprotocol.Theinitialresultswerediscussedamongthereviewersand ?nally judged by the ProgramCommittee Chairs. When there was a con?ict, an additionalreviewwasprovidedbytheProgramCommitteeChairs.TheProgram Committee members were deeply involved in the highly selective process. As a result, only 39 papers (approximately 11.5% of the 338 submitted papers) were accepted as regular papers, 73 papers (21.6% of them) were accepted as short papers.

Advances in Knowledge Discovery and Data Mining Joshua Zhexue Huang 2011-05-09 The two-volume set LNAI 6634 and 6635 constitutes the refereed proceedings of the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2011, held in Shenzhen, China in May 2011. The total of 32 revised full papers and 58 revised short papers were carefully reviewed and selected from 331 submissions. The papers present new ideas, original research results, and practical development experiences from all KDD-related areas including data mining, machine learning, artificial intelligence and pattern recognition, data warehousing and databases, statistics, knoweldge engineering, behavior sciences, visualization, and emerging areas such as social network analysis.

Trends and Applications in Knowledge Discovery and Data Mining Manish Gupta 2021-05-03 This book constitutes the refereed proceedings of five workshops that were held in conjunction with the 25th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2021, in Delhi, India, in May 2021. The 17 revised full papers presented were carefully reviewed and selected from a total of 39 submissions.. The five workshops were as follows: Workshop on Smart and Precise Agriculture (WSPA 2021) PAKDD 2021 Workshop on Machine Learning for Measurement Informatics (MLMEIN 2021) The First Workshop and Shared Task on Scope Detection of the Peer Review Articles (SDPRA 2021) The First International Workshop on Data Assessment and Readiness for AI (DARAI 2021) The First International Workshop on Artificial Intelligence for Enterprise Process Transformation (AI4EPT 2021)

Information Visualization in Data Mining and Knowledge Discovery Usama M. Fayyad 2002 This text surveys research from the fields of data mining and information visualisation and presents a case for techniques by which information visualisation can be used to uncover real knowledge hidden away in large databases.

Advances in Knowledge Discovery and Data Mining Usama M. Fayyad 1996 Eight sections of this book span fundamental issues of knowledge discovery, classification and clustering, trend and deviation analysis, dependency derivation, integrated discovery systems, augumented database systems and application case studies. The appendices provide a list of terms used in the literature of the field of data mining and knowledge discovery in databases, and a list of online resources for

the KDD researcher.

Advances in Knowledge Discovery and Data Mining James Bailey 2016-04-12 This two-volume set, LNAI 9651 and 9652, constitutes the thoroughly refereed proceedings of the 20th Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2016, held in Auckland, New Zealand, in April 2016. The 91 full papers were carefully reviewed and selected from 307 submissions. They are organized in topical sections named: classification; machine learning; applications; novel methods and algorithms; opinion mining and sentiment analysis; clustering; feature extraction and pattern mining; graph and network data; spatiotemporal and image data; anomaly detection and clustering; novel models and algorithms; and text mining and recommender systems.

Advances in Knowledge Discovery and Data Mining David Cheung 2001-04-04 This book constitutes the refereed proceedings of the 5th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2001, held in Hong Kong, China in April 2001. The 38 revised full papers and 22 short papers presented were carefully reviewed and selected from a total of 152 submissions. The book offers topical sections on Web mining, text mining, applications and tools, concept hierarchies, feature selection, interestingness, sequence mining, spatial and temporal mining, association mining, classification and rule induction, clustering, and advanced topics and new methods.

Advances in Knowledge Discovery and Data Mining Ming-Syan Cheng 2003-08-01 Knowledge discovery and data mining have become areas of growing significance because of the recent increasing demand for KDD techniques, including those used in machine learning, databases, statistics, knowledge acquisition, data visualization, and high performance computing. In view of this, and following the success of the five previous PAKDD conferences, the sixth Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2002) aimed to provide a forum for the sharing of original research results, innovative ideas, state-of-the-art developments, and implementation experiences in knowledge discovery and data mining among researchers in academic and industrial organizations. Much work went into preparing a program of high quality. We received 128 submissions. Every paper was reviewed by 3 program committee members, and 32 were selected as regular papers and 20 were selected as short papers, representing a 25% acceptance rate for regular papers. The PAKDD 2002 program was further enhanced by two keynote speeches, delivered by Vipin Kumar from the Univ. of Minnesota and Rajeev Rastogi from AT&T. In addition, PAKDD 2002 was complemented by three tutorials, XML and data mining (by Kyuseok Shim and Surajit Chadhuri), mining customer data across various customer touchpoints at- commerce sites (by Jaideep Srivastava), and data clustering analysis, from simple groupings to scalable clustering with constraints (by Osmar Zaiane and Andrew Foss).

Advances in Knowledge Discovery and Data Mining 2003

Advances in Knowledge Discovery and Data Mining Kamal Karlapalem 2021-05-07 The 3-volume set LNAI 12712-12714 constitutes the proceedings of the 25th Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2021, which was held during May 11-14, 2021. The 157 papers included in the proceedings were carefully reviewed and selected from a total of 628 submissions. They were organized in topical sections as follows: Part I: Applications of knowledge discovery and data mining of specialized data; Part II: Classical data mining; data mining theory and principles; recommender systems; and text analytics; Part III: Representation learning and embedding, and learning from data.

Advances in Knowledge Discovery and Data Mining Dinh Phung 2018-06-18 This three-volume set, LNAI 10937, 10938, and 10939, constitutes the thoroughly refereed proceedings of the 22nd Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2018, held in Melbourne, VIC, Australia, in June 2018. The 164 full papers were carefully reviewed and selected from 592 submissions. The volumes present papers focusing on new ideas, original research results and practical development experiences from all KDD related areas, including data mining, data warehousing, machine learning, artificial intelligence, databases, statistics, knowledge engineering, visualization, decision-making systems and the emerging applications.

Advances in Knowledge Discovery and Data Mining Jinho Kim 2017-04-25 This two-volume set, LNAI 10234 and 10235, constitutes the thoroughly refereed proceedings of the 21st Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2017, held in Jeju, South Korea, in May 2017. The 129 full papers were carefully reviewed and selected from 458 submissions. They are organized in topical sections named: classification and deep learning; social network and graph mining; privacy-preserving mining and security/risk applications; spatio-temporal and sequential data mining; clustering and anomaly detection; recommender system; feature selection; text and opinion mining; clustering and matrix factorization; dynamic, stream data mining; novel models and algorithms; behavioral data mining; graph clustering and community detection; dimensionality reduction.

Advances in Machine Learning and Data Mining for Astronomy Michael J. Way 2012-03-29 Advances in Machine Learning and Data Mining for Astronomy documents numerous successful collaborations among computer scientists, statisticians, and astronomers who illustrate the application of state-of-the-art machine learning and data mining techniques in astronomy. Due to the massive amount and complexity of data in most scientific disciplines

Advances in Knowledge Discovery and Data Mining Qiang Yang 2019-04-03 The three-volume set LNAI 11439, 11440, and 11441 constitutes the thoroughly refereed proceedings of the 23rd Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2019, held in Macau, China, in April 2019. The 137 full papers presented were carefully reviewed and selected from 542 submissions. The papers present new ideas, original research results, and practical development experiences from all KDD related areas, including data mining, data warehousing, machine learning, artificial intelligence, databases, statistics, knowledge engineering, visualization, decision-making systems, and the emerging applications. They are organized in the following topical sections: classification and supervised learning; text and opinion mining; spatio-temporal and stream data mining; factor and tensor analysis; healthcare, bioinformatics and related topics; clustering and anomaly detection; deep learning models and applications; sequential pattern mining; weakly supervised learning; recommender system; social network and graph mining; data pre-processing and feature selection; representation learning and embedding; mining unstructured and semi-structured data; behavioral data mining; visual data mining; and knowledge graph and interpretable data mining.

Advances in Knowledge Discovery and Management Fabrice Guillet 2016-11-03 This book presents a collection of representative and novel work in the field of data mining, knowledge discovery, clustering and classification, based on expanded and reworked versions of a selection of the best papers originally presented in French at the EGC 2014 and EGC 2015 conferences held in Rennes (France) in January 2014 and Luxembourg in January 2015. The book is in three parts: The first four chapters discuss optimization considerations in data mining. The second part explores specific quality measures, dissimilarities and ultrametrics. The final chapters focus on semantics, ontologies and social networks. Written for PhD and MSc students, as well as researchers working in the field, it addresses both theoretical and practical aspects of knowledge discovery and management.

Advances in Knowledge Discovery and Data Mining, Part I Mohammed J. Zaki 2010-06 This book constitutes the proceedings of the 14th Pacific-Asia Conference, PAKDD 2010, held in Hyderabad, India, in June 2010.

Advances in Knowledge Discovery and Data Mining, Part II Pang-Ning Tan 2012-05-10 The two-volume set LNAI 7301 and 7302 constitutes the refereed proceedings of the 16th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2012, held in Kuala Lumpur, Malaysia, in May 2012. The total of 20 revised full papers and 66 revised short papers were carefully reviewed and selected from 241 submissions. The papers present new ideas, original research results, and

practical development experiences from all KDD-related areas. The papers are organized in topical sections on supervised learning: active, ensemble, rare-class and online; unsupervised learning: clustering, probabilistic modeling in the first volume and on pattern mining: networks, graphs, time-series and outlier detection, and data manipulation: pre-processing and dimension reduction in the second volume.

Advances in Knowledge Discovery and Data Mining Mohammed J. Zaki 2010

Advances in Knowledge Discovery and Data Mining Kamal Karlapalem 2021-05-07 The 3-volume set LNAI 12712-12714 constitutes the proceedings of the 25th Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2021, which was held during May 11-14, 2021. The 157 papers included in the proceedings were carefully reviewed and selected from a total of 628 submissions. They were organized in topical sections as follows: Part I: Applications of knowledge discovery and data mining of specialized data; Part II: Classical data mining; data mining theory and principles; recommender systems; and text analytics; Part III: Representation learning and embedding, and learning from data.

Advances in Knowledge Discovery and Data Mining PACIFIC-ASIA CONFERENCE ON KNOWLEDGE DIS 2004-05-11 This book constitutes the refereed proceedings of the 8th Pacific-Asia Conference on Knowledge Discovery and Data mining, PAKDD 2004, held in Sydney, Australia in May 2004. The 50 revised full papers and 31 revised short papers presented were carefully reviewed and selected from a total of 238 submissions. The papers are organized in topical sections on classification; clustering; association rules; novel algorithms; event mining, anomaly detection, and intrusion detection; ensemble learning; Bayesian network and graph mining; text mining; multimedia mining; text mining and Web mining; statistical methods, sequential data mining, and time series mining; and biomedical data mining.

Scientific Data Mining and Knowledge Discovery Mohamed Medhat Gaber 2009-09-19 Mohamed Medhat Gaber "It is not my aim to surprise or shock you – but the simplest way I can summarise is to say that there are now in the world machines that think, that learn and that create. Moreover, their ability to do these things is going to increase rapidly until – in a visible future – the range of problems they can handle will be coextensive with the range to which the human mind has been applied" by Herbert A. Simon (1916-2001) 1Overview This book suits both graduate students and researchers with a focus on discovering knowledge from scienti c data. The use of computational power for data analysis and knowledge discovery in scienti c disciplines has found its roots with the re- lution of high-performance computing systems. Computational science in physics, chemistry, and biology represents the rst step towards automation of data analysis tasks. The rational behind the developmentof computationalscience in different – eas was automating mathematical operations performed in those areas. There was no attention paid to the scienti c discovery process. Automated Scienti c Disc- ery (ASD) [1-3] represents the second natural step. ASD attempted to automate the process of theory discovery supported by studies in philosophy of science and cognitive sciences. Although early research articles have shown great successes, the area has not evolved due to many reasons. The most important reason was the lack of interaction between scientists and the automating systems.

Decomposition Methodology for Knowledge Discovery and Data Mining Oded Maimon 2005-05-30 Data Mining is the science and technology of exploring data in order to discover previously unknown patterns. It is a part of the overall process of Knowledge Discovery in Databases (KDD). The accessibility and abundance of information today makes data mining a matter of considerable importance and necessity. This book provides an introduction to the field with an emphasis on advanced decomposition methods in general data mining tasks and for classification tasks in particular. The book presents a complete methodology for decomposing classification problems into smaller and more manageable sub-problems that are solvable by using existing tools. The various elements are then joined together to solve the initial problem. The benefits of decomposition methodology in data mining include: increased performance (classification accuracy); conceptual simplification of the problem; enhanced feasibility for huge databases; clearer and more comprehensible results; reduced runtime by solving smaller problems and by using parallel/distributed computation; and the opportunity of using different techniques for individual sub-problems.

Advances in Knowledge Discovery in Databases Animesh Adhikari 2014-12-27 This book presents recent advances in Knowledge discovery in databases (KDD) with a focus on the areas of market basket database, time-stamped databases and multiple related databases. Various interesting and intelligent algorithms are reported on data mining tasks. A large number of association measures are presented, which play significant roles in decision support applications. This book presents, discusses and contrasts new developments in mining time-stamped data, time-based data analyses, the identification of temporal patterns, the mining of multiple related databases, as well as local patterns analysis.

Advances in Knowledge Discovery and Data Mining Jinho Kim 2017-04-25 This two-volume set, LNAI 10234 and 10235, constitutes the thoroughly refereed proceedings of the 21st Pacific-Asia Conference on Advances in Knowledge Discovery and Data Mining, PAKDD 2017, held in Jeju, South Korea, in May 2017. The 129 full papers were carefully reviewed and selected from 458 submissions. They are organized in topical sections named: classification and deep learning; social network and graph mining; privacy-preserving mining and security/risk applications; spatio-temporal and sequential data mining; clustering and anomaly detection; recommender system; feature selection; text and opinion mining; clustering and matrix factorization; dynamic, stream data mining; novel models and algorithms; behavioral data mining; graph clustering and community detection; dimensionality reduction.

Advances in Knowledge Discovery and Management Fabrice Guillet 2010-06-11 During the last decade, the French-speaking scientific community developed a very strong research activity in the field of Knowledge Discovery and Management (KDM or EGC for "Extraction et Gestion des Connaissances" in French), which is concerned with, among others, Data Mining, Knowledge Discovery, Business Intelligence, Knowledge Engineering and SemanticWeb. The recent and novel research contributions collected in this book are extended and reworked versions of a selection of the best papers that were originally presented in French at the EGC 2009 Conference held in Strasbourg, France on January 2009. The volume is organized in four parts. Part I includes five papers concerned by various aspects of supervised learning or information retrieval. Part II presents five papers concerned with unsupervised learning issues. Part III includes two papers on data streaming and two on security while in Part IV the last four papers are concerned with ontologies and semantic.

Constrained Clustering Sugato Basu 2008-08-18 Since the initial work on constrained clustering, there have been numerous advances in methods, applications, and our understanding of the theoretical properties of constraints and constrained clustering algorithms. Bringing these developments together, Constrained Clustering: Advances in Algorithms, Theory, and Applications presents an extensive collection of the latest innovations in clustering data analysis methods that use background knowledge encoded as constraints. Algorithms The first five chapters of this volume investigate advances in the use of instance-level, pairwise constraints for partitional and hierarchical clustering. The book then explores other types of constraints for clustering, including cluster size balancing, minimum cluster size,and cluster-level relational constraints. Theory It also describes variations of the traditional clustering under constraints problem as well as approximation algorithms with helpful performance guarantees. Applications The book ends by applying clustering with constraints to relational data, privacy-preserving data publishing, and video surveillance data. It discusses an interactive visual clustering approach, a distance metric learning approach, existential constraints, and automatically generated constraints. With contributions from industrial researchers and leading academic experts who pioneered the field, this volume delivers thorough coverage of the capabilities and limitations of constrained clustering methods as well as introduces new types of constraints and clustering algorithms.