

# Hiroshi Motoda

## Summary

Hiroshi Motoda is Professor Emeritus of Osaka University, Guest Professor of the Institute of Scientific and Industrial Research (ISIR) of Osaka University. He was a scientific advisor at AFOSR/AOARD (Asian Office of Aerospace Research and Development, Air Force Office of Scientific Research, US Air Force Research Laboratory) since 2006 till 2018, and worked as an international program officer. Before that, he was a professor in the division of Intelligent Systems Science at ISIR (Institute of Scientific and Industrial Research) of Osaka University since 1996 until 2006. Further before joining the university, he had been with Hitachi since 1967, participated in research on nuclear reactor core management, control and design of nuclear power reactors, expert systems for nuclear power plant diagnosis at the Central Research Laboratory (1967-1971), the Atomic Energy Research laboratory (1971-1978) and the Energy Research Laboratory (1978-1985), and on artificial intelligence, machine learning, knowledge acquisition, qualitative reasoning and diagrammatic reasoning at the Advanced Research Laboratory (1985-1995). He continued to work on machine learning and knowledge acquisition, and has extended his research to scientific knowledge discovery and data mining at Osaka University. At AOARD he had worked on social network analysis while funding basic research in Asian Countries and managing projects in computational intelligence. He was the principal investigator of the active mining project funded by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) that involved about 20 universities and research institutes (2001-2004). He received his Bs, Ms and PhD degrees in nuclear engineering from the University of Tokyo. He was on the board of trustee of the Japan Society of Software Science and Technology (JSSST), the Japanese Society for Artificial Intelligence (JSAI) and the Japanese Cognitive Science Society (JCSS), and on the scientific advisory board of Alberta Ingenuity Center of Machine Learning. He was the chair of SIG-KBS and SIG-FAI of JSAI, the chair of the steering committee of Pacific Asian Conference of Knowledge Discovery and Data Mining, the chair of the steering committee of International Conference on Discovery Science, the chair of the steering committee of Asian Conference on Machine Learning, and on the editorial board of JSAI, JCSS and Knowledge Acquisition (Academic Press), IEEE Expert, Knowledge and Information Systems: An International Journal (Springer), Advanced Engineering Informatics (Elsevier), International Journal of Human-Computer Studies (Elsevier), Intelligent Data Analysis: An International Journal (IOS Press) and International Journal of Data Science and Analytics (Springer). He is now an honorary member of the steering committee of Pacific

Rim International Conference of Artificial Intelligence, a life long member of the steering committee of Pacific Asian Conference of Knowledge Discovery and Data Mining, an honorary member of the steering committee of Asian Conference on Machine Learning, and a member of the steering committee of IEEE International Conference on Data Science and Advanced Analytics. He received the best paper awards twice from Atomic Energy Society of Japan (1977, 1984), three times from JSAI (1989, 1992, 2001), the best research paper award for DSAA2014 (2014), the outstanding achievement awards from JSAI (2000), the distinguished contribution award for PAKDD (2006), the outstanding contribution award from Web Intelligence Consortium (2008) and the distinguished contribution award for PRICAI (2014). He wrote/edited four books on feature selection/extraction/construction. His book “Fundamentals of Data Mining” was awarded the 2007 Okawa Publishing Prize. He was a member of AESJ, ANS, AAAI, IEEE, JCSS, IPSJ and is a member of JSAI (Fellow).

## 1. Personal Data

- Retired - Current Titles:

Professor Emeritus, Osaka University

Guest Professor, ISIR, Osaka University

Adjunct Professor, School of Computing and Information Systems, University of Tasmania

- Contact information:

Email: motoda (at) ar.sanken.osaka-u.ac.jp

URL: <http://www.ar.sanken.osaka-u.ac.jp/~motoda/motopreg.html>

- Work history:

Scientific Advisor, Asian Office of Aerospace Research and Development, Air Force Office of Scientific Research, Air Force Research Laboratory, USA (May, 2006 to April, 2018)

Professor, The Institute of Scientific and Industrial Research, Osaka University (January, 1996 to March, 2006)

Senior Chief Research Scientist, Advanced Research Laboratory, Hitachi, Ltd. (August, 1994 to December, 1995)

Chief Research Scientist, Advanced Research Laboratory, Hitachi, Ltd. (April, 1987 to July, 1994)

Senior Research Scientist, Advanced Research Laboratory, Hitachi, Ltd. (April, 1985 to March, 1987)

Senior Research Scientist, Energy Research Laboratory, Hitachi, Ltd. (April, 1978 to March, 1985)

Senior Research Scientist, Atomic Energy Research Laboratory, Hitachi, Ltd. (August, 1976 to March, 1978)

Visiting Scholar, Department of Nuclear Engineering, Purdue University (September, 1972 to August, 1973)

Research Scientist, Atomic Energy Research Laboratory, Hitachi, Ltd. (April, 1971 to July, 1976)

Research Scientist, Central Research Laboratory, Hitachi, Ltd. (April, 1967 to March, 1971)

## 2. Education

- Teknowledge Inc. (Oct. 1981 - Mar. 1982)
- Dept. of Nuclear Engineering, Purdue University, Visiting Scholar (Sep. 1972 - Aug. 1973)
- Department of Nuclear Engineering, Graduate School of Engineering, University of Tokyo (1965-1967)
- Department of Nuclear Engineering, Faculty of Engineering, University of Tokyo (1963-1965)
- College of General Education, University of Tokyo (1961-1963)

### 3. Degrees

PhD from department of Nuclear Engineering, University of Tokyo, 11/1972

- Thesis: Optimization of in-core fuel management for nuclear power reactors

Ms from department of Nuclear Engineering, University of Tokyo, 03/1967

- Thesis: Optimal control of nuclear reactor for xenon poisoning problem

Bs from department of Nuclear Engineering, University of Tokyo, 03/1965

- Thesis: Experimental study of two-region coupled core in a sub-critical assembly

### 4. Awards

Best paper award runner up for the 14th Pacific Rim International Conference on Artificial Intelligence, 08/2016

- Detecting Critical Links in Complex Network to Maintain Information Flow/Reachability

Best paper award for the special interest group of Japanese Society for Artificial Intelligence, 06/2016

- Combining Activity-evaluation Information with NMF for Trust-link Prediction in Social Media

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 06/2015

- Identifying High Centrality Nodes in Social Network based on Gap Analysis with a Confidence Level

Distinguished contribution award of the Pacific Rim International Conference on Artificial Intelligence, 12/2014

Best research paper award for the 2014 International Conference on Data Science and Advanced Analytics, 10/2014

- Efficient Analysis of Node Influence Based on SIR Model over Huge Complex Networks

Outstanding contribution award of Web Intelligence Consortium, 12/2008

Okawa publishing award, 11/2007

- Fundamentals of Data Mining, Ohmsha, Ltd., 12/2006

Distinguished contribution award of the Pacific Asian Conference on Data Mining and Knowledge Discovery, 04/2006

Best paper award for the special interest group of Japanese Society for Artificial Intelligence, 06/2005

- Development of Classifier by Using QAR Analysis

Best paper award for the special interest group of Japanese Society for Artificial Intelligence, 06/2003

- A Data Mining System: MUSASHI

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 06/2003

- Improvement of Search Capability of Decision Tree – Graph-Based Induction

Best paper award of Journal of Computer Aided Chemistry, 06/2002

- Applying the Apriori-based Graph Mining Method to Mutagenesis Data Analysis,

Best paper award of Japanese Society for Artificial Intelligence, 05/2001

- Scientific Law Discovery based on Sacale Type Constraint

Outstanding achievement award of Japanese Society for Artificial Intelligence, 06/2000

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 12/1999

- Scientific Law Discovery from Observed Data and its Application to Socio-psychology

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 12/1998

- The extended SDS: A Model of Scientific Discovery for Simultaneous Equation Systems

Best paper award of the special interest group of Japanese Society for Artificial Intelligence, 12/1997

- A method of discovering the first principle based on scale-based reasoning and its implementation

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 06/1997

- A data-driven method to discover the first principle of complex systems

Best paper award of Japanese Society for Artificial Intelligence, 07/1993

- Concept Learning from Inference Pattern

Distinguished paper award for the annual conference of Japanese Society for Artificial Intelligence, 06/1991

- Concept Learning from Inference Pattern

Best paper award of Japanese Society for Artificial Intelligence, 07/1990

- Frustration-Based Learning in Auxiliary-Line Problems in Elementary Geometry

Best paper award of Atomic Energy Society of Japan, 03/1984

- Method for plant operation guidance by knowledge engineering technique

Best paper award of Atomic Energy Society of Japan, 03/1977

- Optimization of refueling schedule for light water reactors

Encouragement award for young scientists of Atomic Energy Society of Japan, 03/1970

- Burnup optimization of nuclear power reactor

## 5. Membership of Academic Society

- The Institute of Electrical and Electronics Engineering (Computer Society) from 1990 to 2007
- Japanese Society of Artificial intelligence since 1987 (Fellow, 2009)
- Japan Society of Software Science and Technology from 1986 to 2008
- Cognitive Science Society of Japan from 1986 to 2008
- American Association for Artificial Intelligence since 1985 to 2010
- Information Processing Society of Japan from 1982 to 2008
- Atomic Energy Society of Japan from 1965 to 1991
- American Nuclear Society from 1972 to 1990

## 6. Research Funds (since 1995 at Osaka University)

### 1. Japanese Ministry of Education, Culture, Sports, Science and Technology

- |   |           |             |
|---|-----------|-------------|
| • Feature construction for structured data                | 2004-2005 | 13,800K yen |
| • Data mining for inter-nanoscience                       | 2002-2005 | 27,400K yen |
| • Active mining from structured data                      | 2001-2004 | 67,610K yen |
| • Implementation of active mining environment             | 2001-2004 | 38,400K yen |
| • Knowledge acquisition system for unstable environmental | 2001-2003 | 13,600K yen |
| • Structure activity mining of chemical compounds         | 2000-2002 | 3,000K yen  |
| • Integrated learning environment for data mining         | 1999-2001 | 8,700K yen  |
| • Constructive induction of meaningful features           | 1999-2000 | 2,100K yen  |
| • Knowledge discovery from large databases                | 1998-2000 | 11,500K yen |
| • User-adaptive interface that learns user's preference   | 1997-1999 | 12,300K yen |
| • Incremental development of consistent knowledge bases   | 1997-1998 | 1,900K yen  |

### 2. Research Funds from AOARD (since 1995 at Osaka University)

- Improvement of Apriori-based Graph Mining Method 2002-2003 2,000K yen
- Integrated Knowledge Acquisition from both human expert and accumulated data 2003-2004 2,000K yen

### 3. Industry

- 2004 1,000K yen
- 2003 780K yen
- 2002 500K yen
- 2001 1,500K yen
- 2000 1,300K yen
- 1999 800K yen
- 1998 1,900K yen
- 1997 3,600K yen

### 4. Research Experience

05/2018 - Present Professor Emeritus, Osaka University,  
 Guest Professor, the Institute of Scientific and Industrial Research,  
 Osaka University  
 Adjunct Professor, School of Computing and Information Systems,  
 University of Tasmania (03/2013 - 08/2018)

- Social network analysis (Social dynamics, Critical link identification, Change detection, Social bias, Social trust, etc.)
- Continuing Data Mining and Machine Learning Research
- Working as a collaborator for overseas projects in the area of computational intelligence

05/2006 - 04/2018 Scientific Advisor  
 Asian Office of Areospace Research and Development  
 Air Force Office of Scientific Research  
 US Air Force Research Laboratory  
 7-23-17 Roppongi, Minato-ku, Tokyo 106-0032, Japan  
 Professor Emeritus, Osaka University,  
 Guest Professor, the Institute of Scientific and Industrial Research,  
 Osaka University  
 Visiting Professor, School of Computing, The University of New  
 South Wales (03/2008 - 02/2012)  
 Adjunct Professor, School of Computing and Information Systems,  
 University of Tasmania (03/2013 - 08/2018)

- Funding and Managing projects as an international program officer in the area of computational intelligence in Asian countries, in particular in the area of machine learning, data mining and artificial intelligence.
- Continuing Data Mining and Machine Learning Research
- Social network analysis (Information diffusion, Opinion formation, Extaction of influential nodes, etc.)

01/1996 - Professor  
 03/2006 Division of Intelligent Systems Science  
 Osaka University  
 8-1 Mihogaoka, Ibaraki, Osaka 567, Japan

- Derivation of association rules for data with numerical attributes using density-based clustering without explicit discretization
- Discovery of time dependent law equations from numerical data by scale type tracking method
- Implementation of active mining framework and its application to medical data and chemical compound data
- Feature constriction by meta-learning
- Unified approach for information retrieval with various data formats (both text and image) based on invariant mathematical transformation using sliding windows of bit sequences
- Integration of incremental Knowledge acquisition from human expert and incremental machine learning from data in unstable environment within the framework of Ripple Down Rule method
- Active knowledge acquisition by generating new cases in Ripple Down Rule method
- Induction of decision tree for graph structured data with feature construction by graph-based induction (DT-GBI, DT-CIGBI)
- Efficient approximate method of extracting typical patterns from graph structured data by graph based induction (GBI) and its improvement (B-GBI, CI-GBI)
- Complete search for extracting frequent patterns from graph structured data by Apriori-based graph mining (AGM)
- Discovery of first principle equations from numerical data
- Discretization of numeric data by Akaike's information criterion (AIC) and minimum description length (MDL)
- Adaptive user Interface that improves operability by inducing user's behavioral characteristics
- Reduction of association rules by maximum inference using Apriori algorithm



08/1994 - Senior Chief Research Scientist and Research Group Leader  
12/1995 Advanced Research Laboratory  
Hitachi, Ltd.  
Hatoyama, Saitama, Japan

- Information filtering by probabilistic clustering method
- Feasibility study of user adaptive interface

09/1987 - Chief Research Scientist and Research Group Leader  
07/1994 Advanced Research Laboratory  
Hitachi, Ltd.  
Hatoyama, Saitama, Japan

- Large memory personal workstation (Learning machine as a life long partner)
- Automatic configuration of hidden Markov modeling by iterative link deletion algorithm and application to DNA classification problem.
- Learning search control knowledge by perceptual chunking (visual pattern) and application to solving elementary geometry problems
- Integration of deductive and inductive learning by typical pattern extraction
- Effective use of diagrams in visual reasoning (diagrammatic reasoning) and verification by protocol analysis
- Compositional modeling by explicitly stating the relevancy claims and meta-reasoning over these claims (i.e. relevance reasoning)
- Interpretation of a metaphorical sentence by representing verbs using a limited set of primitives and taking analogical mapping from which to learn a new meaning of verbs.
- Development of a meta-interview system, a shell to generate a task-dependent interview system which elicits knowledge by detecting deficiency while solving a problem.
- Knowledge compilation based on hierarchical approximations and abstractions

04/1985 - Senior Research Scientist and Research Group Leader  
08/1987 Advanced Research Laboratory  
Hitachi, Ltd.

- Hierarchical qualitative reasoning and its application to radio circuit (an attempt to device understanding by functional reasoning)
- Validity proof of definite clause based on inductionless induction

04/1982 - Senior Researcher and Research Unit Leader  
03/1985 Energy Research Laboratory  
Hitachi, Ltd.  
Hitachi, Ibaraki

- Expert system for boiling water reactor (BWR) power plant operator guidance by model based reasoning
- Knowledge representation and inference mechanism for expert system shell based on predicate calculus and meta-level reasoning
- Inference mechanism for real time control and application to start up control of a nuclear power plant
- Expert system for a transformer plant layout by combining case-based reasoning and heuristic reasoning.

10/1981 - Teknowledge, Inc.  
03/1982 Palo Alto, CA, USA

- An architecture of expert system for BWR operator guidance

08/1980 - Senior Researcher  
09/1981 Energy Research Laboratory  
Hitachi, Ltd.

- Strategic planning for research and development

04/1978 - Senior Researcher and Research Unit Leader  
07/1980 Energy Research Laboratory  
Hitachi, Ltd.

08/1976 - Senior Researcher and Research Unit Leader  
03/1978 Atomic Energy Research Laboratory  
Hitachi, Ltd.  
Ozenji, Kawasaki

- Improvement of core performance of existing BWR by backfitting
- On-line monitoring system of core performance of BWR by use of nuclear-thermal-hydraulic coupled model and in-core monitoring measurement
- Three dimensional neutronics model for transient analysis of BWR by an improved quasi static approximation
- Verification of in-core fuel management system for BWR
- Operator guidance for load following of BWR

09/1973 - Researcher  
07/1976 Atomic Energy Research Laboratory  
Hitachi, Ltd.

- On-line prediction system of core performance for BWR
- Feasibility study of management information system for BWR
- Program systems for in-core fuel management of BWR

09/1972 -Dea Visiting Scholar  
08/1973 Department of Nuclear Engineering  
Purdue University, Indiana, USA

- Optimization of in core fuel management of BWR

04/1971 - Researcher  
08/1972 Atomic Energy Research Laboratory  
Hitachi, Ltd.

04/1967 - Researcher  
03/1971 Central Research Laboratory  
Hitachi, Ltd.  
Kokubunji, Tokyo

- Theory of optimal control rod programming for in-core fuel management of BWR
- Conceptual Design of Advanced Thermal Reactor
- Cascade theory of uranium enrichment system using continuous stage model approximation

## 5. Academic activities

### 1. Advisory Board

- 04/2003 - Present Technical Committee of Web Intelligence Consortium
- 04/2003 - 05/2008 Scientific advisory board of Alberta Ingenuity Centre for Machine Learning
- 04/2003 - 03/2006 Academic advisory board of Japan Institute of Science and Technology
- 04/2004 - 03/2006 Academic advisory board of the Institute of Statistical Mathematics

### 2. Board of Trustee

- 01/2005 - 12/2006 Board of Auditor of Japanese Cognitive Science Society
- 06/1995 - 05/1999 Board of trustee of Japanese Cognitive Science Society

- 06/1990 - 05/1992 Board of trustee of Japanese Society for Artificial Intelligence
- 05/1987 - 04/1989 Board of trustee of Japan Society of Software Science and Technology

### 3. Editorial Board

- 04/2015 - 04/2018 Editorial board of International Journal of Data Science and Analytics (Springer)
- 10/2009 - 03/2012 Advisory board of ACM Transactions on Intelligent Systems and Technology (ACM TIST)
- 08/2002 - 12/2005 Editorial board of the AI Handbook (Japanese Society of Artificial Intelligence)
- 04/2001 - 05/2003 Advisory board of the Handbook of Data Mining (Lawrence Erlbaum Associates )
- 04/2001 - 03/2014 Editorial board of Intelligent Data Analysis: An International Journal (IOS Press)
- 01/1998 - 12/2004 Editorial board of Knowledge and Information Systems: An International Journal (Springer Verlag)
- 03/1997 - 12/2002 Editorial board of the Handbook of Knowledge Discovery and Data Mining (Oxford University Press)
- 11/1994 - 03/2006 Editorial board of International Journal of Human Computer Studies (Elsevier)
- 06/1993 - 04/1997 Editorial board of Japanese Cognitive Science Society
- 08/1991 - 05/2005 Editorial board of Advanced Engineering Informatics (Elsevier)
- 01/1991 - 01/1993 Editorial board of Computer Science (Shujunsha)
- 02/1990 - 02/1994 Editorial board of IEEE Expert
- 04/1989 - 11/1994 Editorial board of the Journal of Knowledge Acquisition (Academic Press)
- 04/1987 - 03/1991 Editorial board of Japanese Society for Artificial Intelligence

### 4. Steering Committee Members

- 08/2014 - 04/2018 International Conference on Informatics for Human Brain, Behavior and Health
- 12/2013 - Present International Conference on Data Science and Advanced Analytics
- 05/2012 - Present Asian Conference on Machine Learning, Honorary member
- 10/2009 - 05/2012 Asian Conference on Machine Learning, Chair

- 11/2006 - 04/2018 Discovery Science Conference
- 05/2006 - Present Pacific-Asia Conference on Knowledge Discovery & Data Mining, Life long member
- 04/2003 - Present WI (Web Intelligence) & IAT (Intelligent Agent Technology)
- 11/2002 - 10/2006 Discovery Science Conference, Chair
- 11/2002 - 10/2006 Algorithmic Learning Theory Conference
- 05/2003 - 04/2006 Pacific-Asia Conference on Knowledge Discovery & Data Mining, Chair
- 05/2001 - 04/2003 Pacific-Asia Conference on Knowledge Discovery & Data Mining, Co-chiar
- 04/1998 - 04/2001 Pacific-Asia Conference on Knowledge Discovery & Data Mining
- 09/2004 - Present Pacific Rim International Conference on Artificial Intelligence, Honorary member
- 08/1996 - 08/2004 Pacific Rim International Conference on Artificial Intelligence

## 5. Program Chairs and Organizers

- Honorary Conference Co-chair of the 22nd Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD19 (2019)
- Honorary Conference Co-Chair of the Tenth Asian Conference on Machine Learning: ACML2018 (2018)
- General Co-Chair of the 2017 IEEE International Confernece on Data Science and Advanced Analytics: DSAA2017 (2017)
- General Co-Chair of the Third Asian Conference on Defense Technology: ACDT2017 (2017)
- Honorary Conference Co-Chair of the Eleventh International Conference on Knowledge, Information and Creativity Support Systems: KICSS16 (2016)
- Honorary Conference Co-Chair of the 14th Pacific Rim International Conference on Artificial Intelligence: PRICAI2016 (2016)
- Honorary Co-Chair of the 2016 Pacific Rim Knowqledge Acquisition Workshop: PKAW2016 (2016)
- General Co-Chair of the Second Asian Conference on Defense Technology: ACDT2016 (2016)
- Honorary Conference Co-Chair of the Tenth International Conference on Knowledge, Information and Creativity Support Systems: KICSS15 (2015)
- Conference Co-chair of the First Asian Conference on Defence Technology: ACDT15 (2015)

- Conference Co-chair of the Nineteenth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD15 (2015)
- Conference Co-Chair of the 2014 International Conference on Data Science and Advanced Analytics (DSAA 2014)
- Program Co-chair of the 2nd International Conference on Rough Sets and Intelligent Systems Paradigms (RSEISP 2014)
- Honorary Conference chair of the Eighteenth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD14 (2014)
- Conference Co-Chair of the Ninth International Conference on Advanced Data Mining and Applications (ADMA 2013)
- Co-organizer of the Fourth International Workshop on Behavior and Social Informatics and Computing: BSIC2013 in conjunction with IJCAI2013 (2013)
- Co-organizer of the Fourth International Workshop on Behavior and Social Informatics: BI2013 in conjunction with PAKDD2013 (2013)
- Conference Co-Chair of the 17th Pacific-Asia Conference on Knowledge Discovery and Data Mining: PAKDD2013 (2013)
- Co-organizer of the Third International Workshop on Behavior Informatics: BI2012 in conjunction with WI-IAT2012 (2012)
- Honary Co-Chair of The 12th International Workshop on Knowledge Management and Acquisition for Intelligent Systems: PKAW2012 (2012)
- Co-organizer of the Second International Workshop on Behavior Informatics: BI2011 in conjunction with PAKDD2011 (2011)
- Conference Chair of the Fifth International Conference on Knowledge, Information and Creativity Support Systems: KICSS 2010 (2010)
- Best Paper Award Chair of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases: ECML/PKDD2010 (2010)
- Honary Co-Chair of The 11th International Workshop on Knowledge Management and Acquisition for Smart Systems and Services: PKAW2010 (2010)
- Co-organizer of the First International Workshop on Behavior Informatics: BI2010 in conjunction with PAKDD2010 (2010)
- Co-organizer of the Fourth International Workshop on Feature Selection and Data Mining: FSDM2010 (2010)
- Conference chair of the First Asisan Conference on Machine Learning (ACML09)
- Honorary Conference chair of the Thirteenth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD09 (2009)
- Conference chair of the Tenth Pacific Rim International Conference on Artificial Intelligence (PRICAI2008)

- Honorary Conference chair of the Eleventh Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD07 (2007)
- Conference chair of the Eighth International Conference on Discovery Science (DS2005).
- Conference Chair of the Ninth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD05 (2005)
- Co-organizer of the International Workshop on Active Mining: AM-2004, 2004
- Honorary Chair of the Fifth Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW04, 2004
- Co-organizer of the International Workshop on Active Mining: AM-2003, 2003
- Organizer of the International Workshop on Active Mining: AM-2002, 2002
- Co-organizer of the Fourth Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW02, 2002
- Co-organizer of the First International Workshop on Data Mining Lessons Learned (DMLL-2002), Workshop at ICML2002, Sydney, 8-12 July, 2002
- Organizer of the panel “Innovative Projects for Intelligent Systems in the New Century” for 13th International Symposium on Methodologies for Intelligent Systems: ISMIS02, 2002
- Co-organizer of the Third Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW00, 2000
- Co-Organizer of the Fourth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD2000, 2000
- Program chair of the First International Workshop on Discovery Science: DS98, 1998
- Co-organizer of the Second Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW98, 1998
- Co-program chair of the Fifth Pacific Rim International Conference on Artificial Intelligence: PRICAI98, 1998
- Co-program chair of the First Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD97, 1997
- Co-organizer of the First Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW96, 1996
- Co-organizer of the Third Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop: JKAW94, 1994
- Co-organizer of International Workshop on Machine Intelligence 1995: MI95, 1993
- Co-organizer of International Workshop on Machine Intelligence 1993: MI93, 1993

- Co-organizer of the Second Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop: JKAW92, 1992
- Co-organizer of the First Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop: JKAW90, 1990
- Vice Chairman of the 5th Annual Meeting of Japanese Society for Artificial Intelligence, 1990

## 6. Program Committee

- Program Committee of the 6th International Workshop on New Frontiers in Mining Complex Patterns (NFMCP2017)
- Program Committee of the 23rd International Symposium on Methodologies for Intelligent Systems (ISMIS2017)
- Program Committee of the 14th International Workshop on Knowledge Management and Acquisition for Intelligent Systems (PKAW2016)
- Program Committee of the 6th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2015)
- Program Committee of International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP2013)
- Program Committee of the 12th International Workshop on Knowledge Management and Acquisition for Intelligent Systems (PKAW2012)
- Program Committee of International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP2012)
- Program Committee of IJCAI2011 Workshop on Link Mining in Heterogeneous Information Networks (HINA2011)
- Program Committee of International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP2011)
- Program Committee of the 19th International Symposium on Methodologies for Intelligent Systems (ISMIS2011)
- Program Committee of the 11th International Workshop on Knowledge Management and Acquisition for Smart Systems and Services (PKAW2010)
- Program Committee of the Third IEEE/ACM International Conference on Cyber, Physical and Social Computing (CPSCCom2010)
- Program Committee of the Thirteenth International Conference on Discovery Science (DS2010)
- Program Committee of the 2010 International Conference on Social Computing, Behavioral Modeling, and Prediction (SBP2010)
- Program Committee of the Twelfth International Conference on Discovery Science (DS2009)



- Program Committee of the 2009 IEEE International on Social Computing, Services and Intelligence (SocialCom-09) (2009)
- Program Committee of the Second International Workshop on Social Computing, Behavioral Modeling, and Prediction, Phoenix, Arizona (2009)
- Program Committee of the 2008 Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW08 (2008)
- Program Committee of the International workshop on New challenges for Feature Selection in Data Mining and Knowledge Discovery (FSDM08)
- Program Committee of Brazilian Symposium on Artificial Intelligence (SBIA 2008)
- Program Committee of the First International Workshop on Social Computing, Behavioral Modeling, and Prediction, Sedona, Arizona (2008)
- Program Committee (Area chair) of the 12th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'08) (2008)
- Program Committee of the 18th European Conference on Machine Learning (ECML) and the 11th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD) (2007)
- Program Committee of the 11th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'07) (2007)
- Program Committee of the Third Workshop on Mining Complex Data (MCD) at the IEEE International Conference on Data Mining (ICDM'07) (2007)
- Program Committee of the Second Workshop on Mining Complex Data (MCD) at the IEEE International Conference on Data Mining (ICDM'06) (2006)
- Program Committee of the Sixth IEEE International Conference on Data Mining (ICDM'06) (2006)
- Program Committee (Seniro member) of the 19th Australian Joint Conference on Artificial Intelligence (AI2006) (2006)
- Program committee of the 16th International Symposium on Methodologies for Intelligent Systems ISMIS06 (2006)
- Program Committee of International Workshop on Feature Selection for Data Mining Interfacing Machine Learning with Statistics: FSDM2006 (2006)
- Senior Program Committee the 23rd International Conference on Machine Learning (ICML-2006) (2006)
- Program Committee of the Ninth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD06 (2006)
- Program Committee of the workshop on Foundation of Semantic Oriented Data and Web Mining (2005)
- Program Committee of the 4th Workshop on Multi-Relational Data Mining (MRDM-2005)

- Program Committee of the 15th International Conference on Inductive Logic Programming (ILP2005)
- Program Committee of the Fifth IEEE International Conference on Data Mining (ICDM2005)
- Program Committee of the Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD2005)
- Program Committee of the 10th International Conference on Rough Sets, Fuzzy Sets, Data Mining, and Granular Computing (RSFDGrC2005)
- Program Committee of the 16th European Conference on Machine Learning ECML (Area chair) (2005)
- Program Committee of the 9th European Conference on Principles and Practice of Knowledge Discovery in Databases PKDD (Area chair) (2005)
- Program Committee (Area chair) of the 22nd International Conference on Machine Learning (ICML-2005) (2005)
- Program Committee for the Symposium on Abstraction, Reformulation and Approximation in 2005 (SARA 2005)
- Program Committee of the Ninth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD05 (2005)
- Program Committee of International Workshop on Feature Selection for Data Mining Interfacing Machine Learning with Statistics: FSDM2005 (2005)
- Program Committee of the Fourth IEEE International Conference of Data Mining (ICDM 2004)
- Program Committee for Foundation of Data Mining Workshop, colocated workshop of ICDM-2004, November, Brighton, UK.
- Program Committee of the Second International Workshop on Mining Graphs, Trees and Sequences (MGTS-2004), 15th European Conference on Machine Learning (ECML'04) and 8th European Conference on Principles and Practice of Knowledge Discovery in Databases
- Program Committee for Multi Relational Data Mining (MRDM-2004), colocated workshop of SIGKDD-2004, Workshop at SIGKDD2004, August, Seattle, USA.
- Program Committee of International Workshop on Knowledge Discovery in BioMedicine (KDbM-04).
- Program Committee of BASYS'04, 6th IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing and Services, Track D: Machine learning and data mining in industry
- Program Committee of 14th International Conference on Knowledge Engineering and Management - EKAW 2004
- Program Committee of the 15th European Conference on Machine Learning

## ECML

- Program Committee of the 8th European Conference on Principles and Practice of Knowledge Discovery in Databases PKDD
- Program Committee of the Seventh International Conference on Discovery Science (DS2004).
- Program Committee of the Sixteenth European Conference on Artificial Intelligence, ECAI2004, 2004
- Program Committee of the Fifth Pacific Rim Knowledge Acquisition for Knowledge-Based Systems Workshop: PKAW04, 2004
- Program Committee of the Eighth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD04 (2004)
- Program Committee of the First International Workshop on Mining Graphs, Trees and Sequences (MGTS-2003), 14th European Conference on Machine Learning (ECML'03) and 7th European Conference on Principles and Practice of Knowledge Discovery in Databases
- Program Committee of the Sixth International Conference on Discovery Science (DS2003).
- Program Committee for Multi Relational Data Mining (MRDM-2003), collocated workshop of KDD-2003, Workshop at KDD2003, August, Washington DC, USA.
- Program Committee of the 2003 International Workshop on Data Mining for Software Engineering and Knowledge Engineering (DMSK'03)
- Program Committee for the Third IEEE International Conference on Data Mining (ICDM '03)
- Program Committee of the 14th European Conference on Machine Learning (ECML-2003)
- Program Committee of the 7th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD-2003)
- Program Committee of the Fourteenth International Symposium for Methodology of Intelligent Systems: ISMIS2003, 2003
- Program Committee of the International Workshop on Foundation of Data Mining and Discovery, 2003
- Programm Committee of the Seventh Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD03, 2003
- Program Committee for Multi Relational Data Mining (MRDM-2002), collocated workshop of KDD-2002, Workshop at KDD2002, July 23 - 26, 2002, Edmonton, Alberta, Canada
- Program Committee of the 6th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD'02), August 19-23, 2002, Helsinki

- Program Committee of the 13th European Conference on Machine Learning (ECML'02), August 19-23, 2002, Helsinki
- Program Committee of ICIIP'02, the International Conference on Intelligent Information Processing, 22-25 September 2002, Beijing
- Program Committee of ICML'02, the Nineteenth International Conference on Machine Learning (ICML-2002), 8-12 July 2002, The University of New South Wales, Sydney, Australia
- Program Committee of the Fifth International Conference on Discovery Science (DS2002), December 2002
- Program Committee of EKAW'02, the 13th European International Conference on Knowledge Engineering and Knowledge Management, Madrid (Spain), October 1-4 , 2002.
- Program Committee of the Symposium on Abstraction, Reformulation and Approximation in 2002 (SARA-2002), Kananaskis, Alberta, Canada
- Programm Committee of the Sixth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD02, 2002
- Program Committee of the IJCAI-2001 Workshop on Wrappers for Performance Enhancement in Knowledge Discovery in Databases (KDD), 04 Aug 2001, Seattle, Washington, USA
- Program Committee of the Fourth International Conference on Discovery Science (DS2001), November 2001.
- International Committee of the Third International Workshop on Strategic Knowledge and Concept Formation (SKCF'01) to be held in Sydney, 17-19 December 2001.
- Program Committee of the 12th European Conference on Machine Learning (ECML'01), 2001
- Program Committee of the 5th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD'01), 2001
- Program Committee of the First IEEE International Conference on Data Mining (ICDM '01), 2001
- Programm Committee of the Fifth Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD01, 2001
- Advisory Board of the Second Asia-Pacific Conference on Intelligent Agent Technology (IAT'2001), 2001
- Program Committee of the Third International Conference on Discovery Science (DS2000), 2000
- Program Committee (area chair) of the Seventeenth International Conference on Machine Learning, 2000
- Program Committee of the 12th International Conference on Knowledge Engi-

neering and Knowledge Management (EKAW2000), 2000

- Program Committee of the Symposium on Abstraction, Reformulation and Approximation, (SARA2000), 2000
- Program Committee of the Sixth International Workshop on Multistrategy Learning, 2000
- Programm Committee of the Second Workshop on Strategic Knowledge and Concept Formation, 1999
- Program Committee of the Second International Conference on Discovery Science (DS1999), 1999
- Program Committee of Australian Applications of AI Symposium, December 1999
- Program Committee of the IJCAI99 workshop on Learning about Users, Stockholm, Sweden, July, 1999
- Advisory Committee of the Second International Conference on Cognitive Science Tokyo, Japan July 27-30, 1999
- Program Committee of The Seventh International Workshop on Rough Sets, Fuzzy Sets, Data Mining, and Granular-Soft Computing (RSFDGrC'99), November 9-11, 1999 in Yamaguchi Resort Center, Ube, Yamaguchi, Japan.
- Programm Committee of the Third Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD99, 1999
- Program Committee of International Symposium on Intelligent Data Engineering and Learning (IDEAL) to be held in Hong Kong, October 14-16, 1998
- Program Committee of the Sixth International Workshop on Rough Sets, Data Mining and Granular Computing, 1998
- Program Committee of the Fourth International Workshop on Multistrategy Learning, Desenzano del Garda, Italy, 1998
- Program Committee of Symposium on Abstraction, Reformulation and Approximation: SARA-98, 1998
- Program Committee of The Ninth Workshop on Algorithmic Learning Theory: ALT98, 1998
- Program Committee of The Australian Joint Conference on Artificial Intelligence (AI98), 1998
- Programm Committee of the Second Pacific-Asia Conference on Knowledge Discovery & Data Mining: PAKDD98, 1998
- Programm Committee of the 1997 IEEE Knowledge and Data Engineering Exchange Workshop (KDEX-97), 1997
- Programm Committee of the Workshop on Strategic Knowledge and Concept Formation, 1997

- Program committee of the Eleventh Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW97, 1997
- Program committee of the Tenth European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW97, 1997
- Programm Committee of the Workshop on Problem-solving Methods for Knowledge-based Systems in Connection with the Fifteenth International Joint Conference on Artificial Intelligence (IJCAI-97), 1997
- Program Committee of The Australian Joint Conference on Artificial Intelligence (AI97), 1997
- Program Committee of The Eighth Workshop on Algorithmic Learning Theory: ALT97, 1997
- Program Committee of The Joint Pacific Asian Conference on Expert Systems/Singapore International Conference on Intelligent Systems (PACES/SPICIS97), 1997
- Program Committee of The Fourth Pacific Rim International Conference on artificial Intelligence (PRICAI96), 1996
- Program committee of the Ninth European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW96, 1996
- Program committee of the Tenth Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW96, 1996
- Program Committee of The Thirteenth National Conference on Artificial Intelligence (AAAI96), 1996
- Program Committee of The Fourth International Workshop on Rough Sets, Fuzzy Sets and Machine Discovery (RSFM'96), 1996
- Program Committee of The Workshop on Machine Learning Meets Human Computer Interaction, 1996
- Program Committee of The Third World Congress on Expert Systems, 1996j
- Program Committee of Symposium on Abstraction, Reformulation, and Approximations (SARA-95), 1995
- Program Committee of Pacific-Asian Conference on Expert Systems (PACES95), 1995
- Program committee of the Ninth Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW95, 1995
- Program Committee of The Fifth International Conference on Human-Machine Interaction and Artificial Intelligence in Aerospace (HMI-AI-AS'95), 1995
- Program Committee of The Eighth International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems, 1995
- Program Committee of The Fifth Workshop on Algorithmic Learning Theory: ALT94, 1994

- Program Committee of The Eleventh International Conference on Machine Learning: ICML94, 1994
- Program and organizing committee of the Second Japan/Korea Joint Conference on Expert Systems: JKJCES94, 1994
- Program committee of the Eighth European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW94, 1994
- Program committee of the Eighth Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW94, 1994
- Program Committee of The Fourth Workshop on Algorithmic Learning Theory: ALT93, 1993
- Program committee of the Seventh European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW93, 1993
- Program committee of the First Korea/Japan Joint Conference on Expert Systems: KJJCES93, 1993
- Program Committee of The Third Workshop on Algorithmic Learning Theory: ALT92, 1992
- Program Committee of the Second Pacific Rim International Conference on Artificial Intelligence: PRICAI92, 1992
- Program committee of the Seventh Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW92, 1992
- Program committee of the Sixth European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW92, 1992
- Program Committee of The Second International Conference on Fifth Generation Computer Systems: FGCS92, 1992
- Program Committee of The Second Workshop on Algorithmic Learning Theory: ALT91, 1991
- Program committee of the Sixth Banff Knowledge Acquisition for Knowledge-Based Systems Workshop: KAW91, 1991
- Program committee of the Fifth European Knowledge Acquisition for Knowledge-Based Systems Workshop: EKAW91, 1991
- Program Committee of International Conference on Knowledge Modeling and Expertise Transfer: KMET91, 1991
- Program Committee of the First Pacific Rim International Conference on Artificial Intelligence: PRICAI90, 1990
- Local Arrangements Committee of First International Workshop on Algorithmic Learning Theory: ALT90, 1990
- Program Committee of the 6th Conference of Japan Society of Software Science, 1989

## 7. SIGs and Working Groups

- 04/1993 - 08/1995 Working group of Curriculum Systematization of Knowledge Information Processing Engineering for University Education
- 04/1990 - present SIG-KBS (Knowledge Based Systems) of Japanese Society for Artificial Intelligence, Chair from 04/1994 to 03/1996
- 04/1990 - present SIG-FAI (Fundamental AI) of Japanese Society for Artificial Intelligence, Secretary from 4/1990 to 3/1992, Chair from 4/1998 to 3/2000
- 01/1989 - 04/1996 Working group on AI application to nuclear plant of Japan Atomic Energy Institute
- 04/1988 - 03/1989 ICOT working group on knowledge base system architecture
- 04/1988 - 03/1989 ICOT working group on knowledge acquisition for design problem
- 04/1985 - 03/1990 ICOT working group on fundamental AI
- 04/1985 - 03/1990 ICOT working group on expert system of power generating plant
- 04/1984 - 03/1991 SIG for artificial intelligence and knowledge engineering of The Institute of Electronics, Information and Communication Engineers
- 04/1984 - 03/1990 SIG for knowledge engineering and artificial intelligence of Information Processing Society of Japan
- 04/1971 - 10/1976 SIG for nuclear system technology of Atomic Energy Society of Japan
- 04/1969 - 03/1971 SIG for optimization technology of nuclear system of Atomic Energy Society of Japan

## 8. External Thesis Reviewer

- 03/2007 - 05/2007 PhD Thesis reviewer of Megan Margaret Vazey, Macquarie University
- 07/2006 - 05/2006 PhD Thesis reviewer of Richard Peter Dazeley, University of Tasmania
- 12/2005 - 03/2006 PhD Thesis reviewer of Le Hoang Minh, Japan Advanced Institute of Science and Technology
- 12/2005 - 03/2006 PhD Thesis reviewer of Ngyen Dung Duc, Japan Advanced Institute of Science and Technology
- 06/2005 - 09/2005 PhD Thesis reviewer of Le Si Quang, Japan Advanced Institute of Science and Technology



- 06/2003 - 09/2003 PhD Thesis reviewer of Saori Kawasaki, Japan Advanced Institute of Science and Technology
- 05/2003 - 08/2003 PhD Thesis reviewer of Kanh Hyuk Lee, University of Sydney
- 05/2001 - 08/2001 PhD Thesis reviewer of Ashesh Mahidadia, University of New South Wales
- 10/2000 - 03/2001 PhD Thesis reviewer of Nguyen Dung Trong, Japan Advanced Institute of Science and Technology
- 03/2000 - 06/2000 PhD Thesis reviewer of Ghassan Beydoun, University of New South Wales
- 05/1998 - 08/1998 PhD Thesis reviewer of Debbie Richards, University of New South Wales

## 9. Invited Talks at Major Conferences and Workshops

- “Learning Information Diffusion Models from Observation and Its Application to Behavior Analysis”, The 3rd International Conference on Social Informatics (2011)
- “What can We Discover from Graph-Structured Data? - A data mining perspective -”, The 20th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (2007)
- “What can we do with graph-structured data? - A data mining perspective -”, The Nineteenth Australian Joint Conference on Artificial Intelligence (2006)
- “Active Mining, A Spiral Model of Knowledge Discovery from Data”, The First World Congress of the International Federation for Systems Research (2005)
- “Active Mining - A Spiral Model of Knowledge Discovery from Data”, The Nineteenth Fuzzy System Symposium of the Japan Society for Fuzzy Theory and Intelligent Informatics (2003)
- “Active Mining, A Spiral Model of Knowledge Discovery”, The 2002 IEEE International Conference on Data Mining (2002)
- “Feature Selection, Extraction and Construction”, Foundation of Data Mining, PAKDD02 (2002)
- “Active Mining - Scope and Perspective”, AI Seminar at the Sixteenth Annual Meeting of JSAI (2002)
- “Acquiring Knowledge from both Human and Data under Unstable Environment”, Tenth Portuguese Conference on Artificial Intelligence (EPIA-01) (2001)
- “Mining Patterns from Graph-Structured Data”, Fifth International Workshop on Multistrategy Learning (MSL-00) (2000)
- “Mining Frequent Patterns from Graph-Structured Data”, Twelveth Australian Joint Conference on Artificial Intelligence (AI-99) (1999)
- “Computer Assisted Discovery of First Principle Equations”, Third Pacific-Asia

Conference on Knowledge Discovery and Data Mining (PAKDD-99) (1999)

- “Machine Learning Techniques to Make Computers Easier to Use”, Fifteenth International Conference on Artificial Intelligence (IJCAI-97) (1997)
- “Can Machine Learn in The Same Way as Humans Do?” First International Conference on Applied Ergonomics (1997)

## 10. Publication lists

### 1. Journals

- [1] K. Matsutani, M. Kumano, M. Kimura, K. Saito, K. Phara and H. Motoda, “Extracting Cooperative Structure among Online Items from Share-Event Sequence,” (in Japanese) Vol.33, No.3A, pp.1-12 (2018) [pdf](#)
- [2] K. Saito, K. Ohara, M. Kimura and H. Motoda, “Which is More Influential, “Who” or “When” for a User to Rate in Online Review Site?,” Intelligent Data Analysis, An Intelligent Data Analysis, An International Journal, Vol.22, No.3, pp.639-657 (2018) [pdf](#)
- [3] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Speeding-up node influence computation for huge social networks,” International Journal of Data Science and Analytics, Springer, Vol.1, No.1, pp. 3-15 (2016) [pdf](#)
- [4] K. Hatta, M. Kumano, M. Kimura, K. Saito. K. Ohara and H. Motoda, ”Analysis of Mediator-Activity Effects for Trust-Network Evolution in Social Media,” Trans. Mathematical Modeling and Its Applications, IPSJ, Vol.8, No.2, pp.44-56 (2015) [pdf](#)
- [5] K. Saito, M. Kimura, K. Ohara and H. Motoda, ”Super mediator – A new centrality measure of node importance for information diffusion over social network Reference,” Journal of Information Sciences, Elsevier, 329, pp.985-1000 (2016), Available online 23 Mar. 2015 [pdf](#)
- [6] K. Saito, K. Ohara, M. Kimura and H. Motoda, ”Change Point Detection for Burst Analysis from an Observed Information Diffusion Sequence of Tweets”, Journal of Intelligent Information Systems, Springer, Vol. 44, pp. 243-269 (2015) [pdf](#)
- [7] K. Saito, M. Kimura, K. Ohara, and H. Motoda, “ Learning Asynchronous-Time Information Diffusion Models and its Application to Behavioral Data Analysis over Social Networks,” Journal of Computer Engineering and Informatics (JCEI), Vol. 1, Iss. 2, pp. 30-57 (2013) [pdf](#)
- [8] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Learning to predict opinion share and detect anti-majority opinionists in social networks,” Journal of Intelligent Information Systems, Springer, Vol.41, pp.5-37 (2013) [pdf](#)
- [9] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Detecting Changes in Information Diffusion Pattern over Social Network,” ACM Transactions on Intelligent Systems and Technology (TIST), Vol.4, Iss. 3, pp.55:1-55:23 (2013) [pdf](#)

- [10] K. Ohara, K. Saito, K. Kimura and H. Motoda, “Burst Detection in a Sequence of Tweets based on Information Diffusion Model,” *Journal of the Data Base Society of Japan*, Vol.11, No.2, pp.25-30 (2012) [pdf](#)
- [11] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Efficient Discovery of Influential Nodes for SIS Models in Social Networks,” *Knowledge and Information Systems: An International Journal*, Vol.30, No.3, pp.613-635 (2012) [pdf](#)
- [12] Yuya Yoshikawa, Kazumi Saito, Hiroshi Motoda, Kouzou Ohara, Masahiro Kimura, “Estimating Method of Expected Influence Curve from Single Diffusion Sequence on Social Networks,” *The IEICE Transactions (Japanese Edition)*, Vol.J94-D, No.11, pp.1899-1908 (2011) [pdf](#)
- [13] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Learning Information Diffusion Model in a Social Network for Predicting Influence of Nodes,” *Intelligent Data Analysis, An International Journal*, Vol.15, No.4, pp.633-652 (2011) [pdf](#)
- [14] M. Kimura, K. Saito, R. Nakano and H. Motoda, “Extracting Influential Nodes on a Social Network for Information Diffusion,” *Data Mining and Knowledge Discovery*, Springer, Vol.20, No.1, pp.70-97 (2010) [pdf](#)
- [15] M. Kimura, K. Saito, R. Nakano and H. Motoda, “Extracting,” Learning Information Diffusion Model for Extracting Influential Nodes in a Social Network,” in Japanese, *Transaction of JSAI*, Vol.25, No.1, pp.215-223 (2010) [pdf](#)
- [16] M. Kimura, K. Saito and H. Motoda, “Blocking Links to Minimize Contamination Spread in a Social Network,” *ACM Transactions on Knowledge Discovery from Data* [pdf](#)
- [17] A. Termier, M. Rousset, M. Sebag, K. Ohara, T. Washio and H. Motoda, “DryadeParent: An Efficient and Robust Closed Attribute Tree Mining Algorithm”, *IEEE Transaction on Knowledge and Data Engineering*, Vol.20, No.3, pp.300-320 (2008) [pdf](#)
- [18] Xindong Wu, Vipin Kumar, J. Ross Quinlan, Joydeep Ghosh, Qiang Yang, Hiroshi Motoda, Geoffrey J. McLachlan, Angus Ng, Bing Liu, Philip S.Yu, Zhi-Hua Zhou, Michael Steinbach, David J.Hand, Dan Steinberg, “Top 10 Algorithms in DataMining,” *Knowledge and Information Systems, An International Journal*, Vol.14, No. 1, pp.1-37 (2007) [pdf](#)
- [19] H. Motoda, “Pattern Discovery from Graph-Structured Data - A Data Mining Perspective,” in *New Trends in Applied Artificial Intelligence, LNAI4570*, pp. 12-22 (2007) [pdf](#)
- [20] T. Washio, T. Higuchi, S. Imoto, Y. Tamada, K. Sato and H. Motoda, “Graph Mining and Its Application to Statistical Modeling”, *Proc. of the Institute of Statistical Mathematics*, Vol.54, No.2, PP.315-331 (2006) [pdf](#)
- [21] T. Wakaki, H. Ikeda, M. Tamura, H. Motoda and T. Washio, “A Study on Rough Set-aided Feature Selection for Automatic Web-Page Classification”, *Web Intelligence and Agent Systems: An International Journal*, Vol.4, No.4, pp.431-441 (2006) [pdf](#)

- [22] K. Nakanishi, T. Washio, Y. Mitsunaga, A. Fujimoto and H. Motoda, “A Classification Method Based on Subspace Clustering and Association Rules (in Japanese)”, Transaction of JSAI, Vol.21, No.6, pp.526-536 (2006) [pdf](#)
- [23] Y. Misunaga, T. Washio and H. Motoda, “Mining Quantitative Frequent Itemsets using Adaptive Density-based Subspace Clustering (in Japanese)”, Transaction of JSAI, Vol.21, No.5, pp.439-449 (2006) [pdf](#)
- [24] K. Yada, H. Motoda, T. Washio and A. Miyawaki, “Consumer Behavior Analysis by Graph Mining Technique”, New Mathematics and Natural Computation, Vol.2, No.1, pp.59-68 (2005) [pdf](#)
- [25] F. Adachi, T. Washio and H. Motoda: Scientific Discovery of Dynamic Models Based on Scale-type Constraints IPSJ Transactions on Mathematical Modeling and Its Applications, Vol.47, No.SIG14(TOM15), pp.31-42 (2006) [pdf](#)
- [26] F. Adachi, T. Washio, A. Fujimoto, H. Motoda and H. Hanafusa, “Development of Generic Search Method Based on Transformation Invariance”, New Generation Computing Journal, Vol.23, No.4, pp.291-313 (2005) [pdf](#)
- [27] W. Geamsakul, T. Yoshida, K. Ohara, H. Motoda, H. Yokoi and K. Takabayashi, “Constructing a Decision Tree for Graph-Structured Data and its Applications”, Fundamenta Informaticae, Vol.66, No.1-2, pp.131-160 (2005) [pdf](#)
- [28] A. Inokuchi, T. Washio and H. Motoda, “General Framework for Mining Frequent Subgraphs from Labeled Graphs”, Fundamenta Informaticae, Vol.66, No.1-2, pp.53-82 (2005) [pdf](#)
- [29] T. Washio, H. Motoda and Y. Niwa, “Enhancing the plausibility of law equation discovery through cross check among multiple scale-type-based models”, Journal of Experimental & Theoretical Artificial Intelligence, Vol. 17, No. 1-2, pp.129-143 (2005) [pdf](#)
- [30] S. Tsumoto, T. Yamaguchi, M. Numao and H. Motoda, ”On the special issue of ”Active Mining”, ” J. of JSAI, Vol.20, No.2, pp.145-148 (2005) [pdf](#)
- [31] H. Liu, H. Motoda and L. Yu, “A selective sampling approach to active feature selection”, Artificial Intelligence, Vol 159/1-2 pp.49-74 (2004) [pdf](#)
- [32] N. Lavrac, H. Motoda, T. Fawcett, R. Holte, P. Langley and P. Adriaans, “Introduction, Lessons Learned from Data Mining Applications and Collaborative Problem Solving”, Machine Learning, Vol. 57, No.1-2, pp.13-34 (2004) [pdf](#)
- [33] N. Lavrac, H. Motoda, T. Fawcett, “Editorial:Data Mining Lessons Learned”, Machine Learning, Vol. 57, No.1-2, pp.5-11 (2004) [pdf](#)
- [34] A. Inokuchi, T. Washio and H. Motoda, “Generalization for Frequent Subgraph Mining (in Japanese)”, Journal of JSAI, Vol.19, No.5, pp.368-378 (2004) [pdf](#)
- [35] T. Yoshida, T. Wada, H. Motoda and T. Washio, “Adaptive Ripple Down Rules Method based on Description Length”, Transaction of JSAI Vol. 19,

- No. 6-B, pp. 460-471 (2004) [pdf](#)
- [36] T. Yoshida, T. Wada, H. Motoda and T. Washio, “Adaptive Ripple Down Rules Method Based on Minimum Description Length Principle”, *Intelligent Data Analysis, An International Journal*, Vol. 8, No. 3, pp.239-265 (2004) [pdf](#)
- [37] K. Yoshida, F. Adachi, T. Washio, H. Motoda, T. Homma, A. Hakashima , H. Fujikawa and K. Yamazaki, “Density-based Spam Detector”, *IEICE Trans. Vol.E87-D*, No.12, pp.2678-2688 (2004) [pdf](#)
- [38] Y. Nishimura, T. Washio, T. Yoshida, H. Motoda, A. Inokuchi and T. Okada, “Fast Apriori-based Graph Mining ALgorithm and application to 3-dimensional Structure Analysis (in Japanese)”, *Transactions of JSAI*, Vol.18, No.5 C, pp.257-268 (2003) [pdf](#)
- [39] A. Inokuchi, T. Washio and H. Motoda, “Complete Mining of Frequent Patterns from Graphs: Mining Graph Data”, *Machine Learning*, Vol.50, No.3, pp.321-354 (2003) [pdf](#)
- [40] S. Hori, H. Taki, T. Washio and H. Motoda, “Applying data mining to a field quality watchdog task”, *Electrical Engineering in Japan*, Vol.140, Iss. 2, Wiley, pp.18-25, (2002) [pdf](#)
- [41] M. Terabe, T. Washio, H. Motoda, O. Katai and T. Sawaragi, “Attribute Generation Based on Association Rues”, *Knowledge and Information Systems, An International Journal*, Vol. 4, No. 3, pp.329-349 (2002) [pdf](#)
- [42] T. Matsuda, H. Motoda and T. Washio, “Graph-Based Induction and Its Applications,” *Advanced Engineering Informatics*, Vol. 16, No. 2, pp.135-143 (2002) [pdf](#)
- [43] H. Liu and H. Motoda, “On Issues of Instance Selection,” *Data Mining and Knowledge Discovery*, Vol. 6, No. 2, pp.115-130 (2002) [pdf](#)
- [44] T. Washio and H. Motoda, “Toward the Discovery of First Principle Based Scientific Law Equations,” *Progress in Discovery Science (Final Report of the Japanese Discovery Science Project)*, S. Arikawa and A. Shinohara Eds., *Lecture Note in Artificial Intelligence, LNAI 2281*, Springer Verlag, pp.553-564 (2002) [pdf](#)
- [45] A. Inokuchi, T. Washio, T. Okada and H. Motoda, “Applying the Apriori-based Graph Mining Method to Mutagenesis Data Analysis”, *J. of Computer Aided Chemistry*, Vol. 2, pp.87-92 (2001) [pdf](#)
- [46] S. Hori, H. Taki, T. Washio and H. Motoda, “Applying Data Mining to Field Quality Watchdog Task, T. IEEE Japan, Vol.121-C, No.8, pp.1289-1295 (2001) [pdf](#)
- [47] M. Terabe, T. Washio and H. Motoda, “Fast Classifier Generation by S<sup>3</sup> bagging”, *Trans. Mathematical Modeling and Its Applications, IPSJ*, Vol. 42, No. 14, pp.25-38 (2001) [pdf](#)
- [48] T. Wada, T. Horiuchi, H. Motoda and T. Washio, “A Description Length-Based Decision Criterion for Default Knowledge in the Ripple Down Rules

- Method”, Knowledge and Information Systems, Springer, Vol.3, No.2, pp.146-167 (2001) [pdf](#)
- [49] T. Matsuda, H. Motoda, T. Washio, “Graph-Based Induction for General Graph Structured Data and Its Applications,” Trans. of JSAI, Vol.16, No.4, A, pp.363-374 (2001) [pdf](#)
- [50] T. Wada, H. Motoda and T. Washio, “Integrating Inductive Learning to the Ripple Down Rules Method with the Minimum Description Length Principle, Trans. of JSAI, Vol. 16, No. 2, pp.268-278 (2001) [pdf](#)
- [51] T. Washio, H. Motoda, “Discovery of Scientific Simultaneous Equation Models of Large Scale Systems,” J. of JSAI, Vol.15, No.6, pp.1107-1116 (2000) [pdf](#)
- [52] A. Inokuchi, T. Washio, H. Motoda, K. Kumazawa and N. Arai “Fast and Complete Mining Method for Frequent Graph Patterns,” J. of JSAI, Vol.15, No.6, pp.1052-1063 (2000) [pdf](#)
- [53] T. Washio, H. Motoda, “Discovery of Scientific Law Equations Based on Scale-Type Constraints,” J. of JSAI, Vol.15, No.4, pp.681-692 (2000) [pdf](#)
- [54] T. Washio and H. Motoda, “Extension of Association Rule Mining for Structured and Numerical Data ”, J. of JSAI, Vol.15, No.5, pp.759-767 (2000) [pdf](#)
- [55] T. Kayama, T. Horiuchi, H. Motoda and T. Washio, “Classification Rule Learning from Tree Structured Data by Stepwise Pair Expansion”, J. of JSAI, Vol.15, No. 3, pp.485-494 (2000) [pdf](#)
- [56] T. Wada, T. Horiuchi, H. Motoda and T. Washio, “Decision Criterion of Default Knowledge Based on Characterization of Knowledge Acquisition in Ripple Down Rules Methods, ” Journal of JSAI, Vo.15, No. 1, pp.177-186 (2000) [pdf](#)
- [57] M. Terabe, O. Katai, T. Sawaragi, T. Washio and H. Motoda, “Attribute Generation based on Association Rules (in Japanese)”, Journal of JSAI, Vo.15, No. 1, pp.187-197 (2000) [pdf](#)
- [58] H. Motoda and K. Yoshida, “Machine Learning Techniques to Make Computers Easier to Use, Journal of Artificial Intelligence, Vol. 103 No.1-2, pp.295-321 (1998) [pdf](#)
- [59] T. Washio and H. Motoda, “Compositional Law Discovery Based on Scale Cognition of Feature Quantities (in Japanese),” Cognitive Studies: Bulletin of the Japanese Cognitive Science Society, Vol.5 , No.2 , pp.80-94 (1998) [pdf](#)
- [60] T. Washio and H. Motoda, “Discovery of First Principle Equations Based on Scale-Type-Based and Data-Driven Reasoning, Knowledge-Based Systems, Elsevier, Vol.10, No.7, pp.403-411 (1998) [pdf](#)
- [61] H. Liu and H. Motoda, “Feature Transformaion and Subset Selection,” IEEE Intelligent Systems, Vol. 13, No. 2, March/April, pp.26-28 (1998) [pdf](#)
- [62] B.H. Kang, K. Yoshida, H. Motoda and P. Compton, “Help Desk System with Intelligent Interface”, Applied Artificial Intelligence: An International Journal, Vol.11, pp.611-631 (1997) [pdf](#)

- [63] K. Yoshida and H. Motoda, “Inductive Inference by Stepwise Pair Extension,” in Japanese, Journal of JSAI, Vol.12, No.1, pp.58-67 (1997) [pdf](#)
- [64] K. Yoshida and H. Motoda, “Automated User Modeling for Intelligent Interface,” International Journal of Human Computer Interaction (invited), Vol. 8, No. 3, pp.237-258 (1996) [pdf](#)
- [65] M. Suwa and H. Motoda, “Operator Schemata Acquisition based on Recognition Propagation Rule,” Cognitive Studies: Bulletin of the Japanese Cognitive Science Society, Vol.2 , No.4 , pp.39-55 (1995) [pdf](#)
- [66] M. Suwa and H. Motoda, “On Dealing with the Dynamic Utility of Learned Knowledge,” Machine Intelligence, Vol.14, pp.111-130, Oxford Univ. Press (1995) [pdf](#)
- [67] K. Yoshida and H. Motoda, “CLIP: Concept Learning from Inference Pattern,” Journal of Artificial Intelligence, Vol.75, No.1, pp.63-92 (1995) [pdf](#)
- [68] K. Yoshida, H. Motoda and N. Indurkha, “Towards a Common Framework for Inductive and Deductive Learning using Colored Digraphs,” in Japanese, Journal of JSAI, Vol.10, No.1, pp.61-71 (1995) [pdf](#)
- [69] M. Suwa and H. Motoda, “PCLEARN: A Computer Model for Learning Perceptual Chunks,” AI communication, Vol.7, No.2, pp.114-125 (1994) [pdf](#)
- [70] K. Yoshida, H. Motoda and N. Indurkha, “Graph-based Induction as a Unified Learning Framework”, Invited, J. of Applied Intelligence, Vol.4, .297-328 (1994) [pdf](#)
- [71] M. Suwa and H. Motoda, “Perceptual Chunk Learning – Visual Search Control Method –,” in Japanese, J. of JSAI, Vol.9, No.4, pp.548-558 (1994) [pdf](#)
- [72] M. Suwa and H. Motoda, “Primitive Matching – A Learning Method for Metaphorical Relations –,” in Japanese, J. of JSAI, Vol.9, No.3, pp.417-426 (1994) [pdf](#)
- [73] M. Suwa and H. Motoda, “Learning Perceptually-chunked Macro-operators,” Machine Intelligence, Vol.13, pp.419-440, Oxford Univ. Press (1994) [pdf](#)
- [74] K. Yoshida and H. Motoda, “Hierarchical Knowledge Representation based on Approximations,” International Journal of Expert Systems, Vol.5, No.2, pp.105-119 (1993) [pdf](#)
- [75] H. Motoda, R. Mizoguchi and T. Nishida, “Workshop on Knowledge Sharing and Reuse”, Invited, J. of JSAI, Vol.8, No.5, pp.666-671 (1993) [pdf](#)
- [76] K. Yoshida and H. Motoda, “CLIP: Concept Learning from Inference Pattern (2) - Concept Hierarchy Formation -,” in Japanese, J. of JSAI, Vol.7, No.4, pp.686-696 (1992) [pdf](#)
- [77] K. Yoshida and H. Motoda, “CLIP that Learns Concepts from Inference Process (in Japanese)”, Invited, Fall Issue of Nikkei Intelligent Systems, pp.152-159 (1992)
- [78] H. Motoda, “Large Knowledge Bases for Engineering (translation in Japanese),”

- Invited, Computer Science, Vol.2, No.1, pp.66-75 (1992)
- [79] K. Yoshida and H. Motoda, "CLIP: Concept Learning from Inference Pattern (1) - A Method to Find Typical Inference Pattern -," in Japanese, J. of JSAI, Vol.7, No.4, pp.675-685 (1992) [pdf](#)
  - [80] K. Yoshida and H. Motoda, "Hierarchical Knowledge Representation based on Approximations," in Japanese, J. of JSAI, Vol.7, No.1, pp.69-76 (1992) [pdf](#)
  - [81] A. Kawaguchi, H. Motoda and R. Mizoguchi, "Interview-Based Knowledge Acquisition using Dynamic Analysis," Invited, IEEE Expert, Vol.6, No.5, pp.47-60 (1991) [pdf](#)
  - [82] H. Motoda and A. Kawaguchi, "The Computer as a Life-Long Partner," in Japanese, Invited, Computer Science, Vol.1, No.2, pp.107-113 (1991) [pdf](#)
  - [83] M. Suwa and H. Motoda, "Understanding Metaphors by Frustration-Based Learning Method," in Japanese, J. of JSAI, Vol.5, No.3, pp.291-299 (1990) [pdf](#)
  - [84] K. Yoshida and H. Motoda, "An Approach to Hierarchical Qualitative Reasoning – Constructing Shallow Knowledge from Deep Knowledge," in Japanese, J. of JSAI, Vol.4, No.4, pp.447-455 (1989) [pdf](#)
  - [85] M. Suwa and H. Motoda, "Frustration-Based Learning in Auxiliary- Line Problems in Elementary Geometry," in Japanese, J. of JSAI, Vol.4, No.3, pp.308-320 (1989) [pdf](#)
  - [86] M. Suwa and H. Motoda, "Acquisition of Associative Knowledge by the Frustration-Based Learning Method in an Auxiliary-Line Problem," Knowledge Acquisition, Vol.1, No.1, pp.113-137 (1989) [pdf](#)
  - [87] N. Yamada and H. Motoda, "A Plant Diagnosis Method Based on the Knowledge of System Description," J. Inf. Proc. Vol.7, No.3, pp.143-148 (1984) [pdf](#)
  - [88] H. Motoda and N. Yamada, "Nuclear Power Plant Diagnosis based on the Functional Knowledge," in Japanese, Measurement and Control, Vol.22, No.9, pp.47-52 (1983) [pdf](#)
  - [89] T. Kiguchi, K. Yoshida, H. Motoda and S. Kobayashi, "Method for plant operation guidance by knowledge engineering technique," in Japanese, Journal of Atomic Energy Society of Japan, Vol.25, No.4, 298-305 (1983) [pdf](#)
  - [90] Y. Nishizawa, H. Motoda, N. Yamada and Y. Wada, "Approach to Knowledge Based Man-Machine Communication for BWR Start-Up Guidance," J. Nucl. Sci. Technol., Vol.20, No.10, pp.877-879 (1983) [pdf](#)
  - [91] K. Umegaki, T. Kiguchi and H. Motoda, "Simple Method to Predict Power Level and Core Flow Rate of Boiling Water Reactors by Using a One-Point Core Model," J. Nucl. Sci. Technol. Vol.19, No.7, pp.513-520 (1982) [pdf](#)
  - [92] Y. Bessho, H. Motoda and M. Watanabe, "Principles for Control Rod Withdrawal Strategy during the Startup of Boiling Water Reactors," Nucl. Technol., Vol.58, pp.113-119 (1982) [pdf](#)



- [93] H. Motoda, T. Hayase, Y. Bessho and K. Kato, "Multi-Region Neutronics Model Based on Coarse Mesh Nodal Coupling Method for Slow Transient Analyses of Boiling Water Reactors," Nucl. Sci. Eng., Vol.80, pp.648-666 (1982) [pdf](#)
- [94] Y. Bessho, H. Motoda, T. Kiguchi, T. Hayase, K. Hoshi and T. Enomoto, "A New Method of Startup Planning for Boiling Water Reactors," J. Nucl. Sci. Technol. Vol.18, No.9, pp.697-704 (1981) [pdf](#)
- [95] S. Uchikawa and H. Motoda, "A Method for Calculating Power Distributions in Boiling Water Reactors Using In-Core Detector Readings," Nucl. Sci. Eng., Vol.77, pp.137-145 (1981) [pdf](#)
- [96] T. Hayase and H. Motoda, "Boiling Water Reactor Control Rod Programming Using Heuristic and Mathematical Methods," Nucl. Technol., Vol.48, pp.91-100 (1980) [pdf](#)
- [97] H. Motoda, S. Tanisaka, T. Kiguchi and H. Yonenaga, "Feasibility Study of Core Management System by Data Communication for Boiling Water Reactors," Nucl. Technol., Vol.36, pp.294-304 (1977) [pdf](#)
- [98] H. Motoda and O. Yokomizo, "Method to Minimize Power Peaking in Refueling Schedule of Boiling Water Reactor," J. Nucl. Sci. Technol., Vol.14, pp.108-116 (1977) [pdf](#)
- [99] Y. Niki, N. Hiranuma, M. Ozawa, H. Motoda and A. Kawahara, "Operating Experience of Shimane Nuclear Power Station and Core Management Engineering System," Hitachi Review, Vol.25, pp.97-102 (1976) [pdf](#)
- [100] O. Yokomizo, H. Motoda, T. Kiguchi and R. Takeda, "A Man-Machine Communication System for Boiling Water Reactor Core Management Planning," Nucl. Technol., Vol.29, pp.191-199 (1976) [pdf](#)
- [101] T. Kawai, H. Motoda, T. Kiguchi and M. Ozawa, "A Method for Generating a Control Rod Programming for Boiling Water Reactors," Nucl. Technol., Vol.28, pp.108-118 (1976) [pdf](#)
- [102] Y. Nishizawa, T. Kiguchi and H. Motoda, "On-Line Prediction of the Power Distribution within Boiling Water Reactors," Nucl. Sci. Eng., Vol.60, pp.189-192 (1976) [pdf](#)
- [103] H. Motoda and O. Yokomizo, "Optimization of Fuel Assembly Allocation for Boiling Water Reactors," J. Nucl. Sci. Technol., Vol.13, No.5, pp.230-246 (1976) [pdf](#)
- [104] H. Motoda, J. Herczeg and A. Sesonske, "Optimization of Refueling Schedule for Light Water Reactors," Nucl. Technol., Vol.25, pp.477-496 (1975) [pdf](#)
- [105] T. Kiguchi, H. Motoda and T. Kawai, "Stochastic Fluctuation in a Uranium-Enriching Cascade Using the Centrifuge Process," Nucl. Technol., Vol.17, pp.168-183 (1973) [pdf](#)
- [106] T. Kawai, K. Inoue, H. Motoda, T. Kobayashi and T. Kiguchi, "Sensitivity Analysis of Ideal Centrifuge Cascade for Producing Slightly Enriched Ura-

- nium,” Nucl. Sci. Eng., Vol.50, pp.63-72 (1973) [pdf](#)
- [107] Y. Nishizawa and H. Motoda, “On-Line Calculation Method for Evaluating the Power Distribution in a Nuclear Reactor Core,” J. Nucl. Sci. Technol., Vol.10, No.2, pp.125-127 (1973) [pdf](#)
- [108] H. Motoda, “Investigation of the Fuel Loading Pattern on the Core Burnup by FLARE Simulation,” J. Nucl. Sci. Technol., Vol.9, No.12, pp.751-753 (1972) [pdf](#)
- [109] M. Kitamura and H. Motoda, “Burnup Optimization Using Modal Expansion Method,” J. Nucl. Sci. Technol., Vol.9, pp.512-520 (1972) [pdf](#)
- [110] H. Motoda, “Optimization of Control Rod Programming and Loading Pattern in Multiregion Nuclear Reactor by the Method of Approximation Programming,” Nucl. Sci. Eng., Vol.49, pp.515-524 (1972) [pdf](#)
- [111] Y. Nishizawa and H. Motoda, “Method for Evaluating the Local Variation of the Neutron Flux,” J. Nucl. Sci. Technol., Vol.9, No.7, pp.412-419 (1972) [pdf](#)
- [112] H. Motoda, “Optimal Control Rod Programming of Light Water Reactors in Equilibrium Fuel Cycle,” Nucl. Sci. Eng., Vol.46, pp.88-111 (1971) [pdf](#)
- [113] H. Motoda, “Burnup Optimization of Continuous Scattered Refueling,” Nucl. Sci. Eng., Vol.41, pp.1-13 (1970) [pdf](#)
- [114] H. Motoda and T. Kawai, “A Theory of Control Rod Programming Optimization in Two-Region Reactors,” Nucl. Sci. Eng., Vol.39, pp.114-118 (1970) [pdf](#)

## 2. Proceedings of conferences

- [1] K. Saito, K. Ohara, M. Kimura, and H. Motoda, “Efficient Detection of Critical Links to Maintain Performance of Network with Uncertain Connectivity”, Proceedings of The 15th Pacific Rim International Conference on Artificial Intelligence (PRICAI2018), accepted
- [2] K. Matsutani, M. Kumano, M. Kimura, K. Saito, K. Ohara, and H. Motoda, “Discovering Cooperative Structure among Online Items for Attention Dynamics,” Proceedings of Data science for human performance in social networks Workshop (ACUMEN’2017), in 2017 IEEE International Conference on Data Mining Workshops, pp.1033-1041 (2017) [pdf](#)
- [3] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Maximizing Network Performance based on Group Centrality by Creating Most Effective  $k$ -links,” Proceedings of The 4th IEEE Data Science and Advanced Analytics (DSAA2017), pp.561-570 (2017) [pdf](#)
- [4] K. Saito, K. Ohara, M. Kimura and H. Motoda, “An Accurate and Efficient Method to Detect Critical Links to Maintain Information Flow in Network,” Proceedings of the 23rd International Symposium on Methodologies for Intelligent Systems (ISMIS2017), LNCS 10352, pp.116-126 (2017) [pdf](#)

- [5] M. Choy, D. Kim, J. Lee, H. Kim and H. Motoda, “Looking Back on the Current Day: Interruptibility Prediction Using Daily Behavioral Features”, Proceedings of the 2016 AVM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp2016), pp.1004-1015 (2016) [pdf](#)
- [6] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Accelerating computation of distance based centrality measures for spatial networks”, Proceedings of the 19th International Conference of Discovery Science, LNAI 9956, Springer, pp.376-391 (2016) [pdf](#)
- [7] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Detecting Critical Links in Complex Network to Maintain Information Flow/Reachability”, Proceedings of The 14th Pacific Rim International Conference on Artificial Intelligence (PRICAI2016), LNAI 9810, pp.419-432 (2016) [pdf](#)
- [8] K. Matsutani, K. Kumano, M. Kimura, K. K. Saito, Ohara and H. Motoda, “Combining Activity-evaluation Information with NMF for Trust-link Prediction in Social Media”, First International Workshop on Mining Big Data in Social Networks (MBD-SONET) in conjunction with 2015 IEEE International Big Data Conference, Proceedings of the 2015 IEEE International Conference on Big Data (Big Data), pp.2101-2110 (2015) [pdf](#)
- [9] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Change point detection for information diffusion tree”, Proceedings of the 18th International Conference of Discovery Science, LNAI 9356, Springer, pp.161-169 [pdf](#)
- [10] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Resampling-based Gap Analysis for Detecting Nodes with High Centrality on Large Social Network”, Proceedings of the 19th Pacific-Asia Conference on Knowledge discovery and Data Mining, Part 1, LNAI 9077, pp.135-147 (2015) [pdf](#)
- [11] K. Saito, K. Ohara M. Kimura, and H. Motoda, “Efficient Learning of User Conformity on Review Score,” Proceedings of the 8th International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP2015), LNCS 9021, pp.182-192 (2015) [pdf](#)
- [12] Y. Yamagishi, K. Saito, K. Ohara, M. Kimura and H. Motoda, “A Method to Divide Stream Data of Scores over Review Sites,” Proceedings of The 13th Pacific Rim International Conference on Artificial Intelligence (PRICAI2014), LNAI 8862, pp.913-919 (2014) [pdf](#)
- [13] K. Hatta, M. Kumano, M. Kimura, K. Saito, K. Ohara, and H. Motoda, “Analyzing Mediator-Activity Effects for Trust-Network Evolution in Social Media,” Proceedings of The 13th Pacific Rim International Conference on Artificial Intelligence (PRICAI2014), LNAI 8862, pp.297-308 (2014) [pdf](#)
- [14] M. Kimura, K. Saito, K. Ohara, and H. Motoda, “Efficient Analysis of Node Influence Based on SIR Model over Huge Complex Networks,” Proceedings of The 2014 International Conference on Data Science and Advanced Analytics (DSAA2014), S7: Influence Analysis Session (2014) [pdf](#)
- [15] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Resampling-based Frame-

- work for Estimating Node Centrality of Large Social Network,” Proceedings of The 17th International Conference on Discovery Science (DS2014), LNAI 8777, pp.228-239 (2014) [pdf](#)
- [16] K. Saito, M. Kimura, K. Ohara and H. Motoda, “A New Approach for Item Ranking Based on Review Scores Reflecting Temporal Trust Factor,” Proceedings of the 7th International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP2014), LNCS 8393, pp.161-168 (2014) [pdf](#)
- [17] K. Ohara, K. Saito, M. Kimura, and H. Motoda, “Predictive Simulation Framework of Stochastic Diffusion Model for Identifying Top-K Influential Nodes,” Proceedings of the 5th Asian Conference on Machine Learning, JMLR Workshop and Conference Proceedings, Vol.29, pp.149-164 (2013) [pdf](#)
- [18] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Identifying Super-Mediators of Information Diffusion in Social Networks,” Proceedings of The 16th International Conference on Discovery Science (DS2013), LNAI 8140, pp.170-184 (2013) [pdf](#)
- [19] K. Saito, K. Ohara, M. Kimura and H. Motoda, “Detecting Changes in Content and Posting Time Distributions in Social Media,” Proceedings of the 2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, pp.572-578 (2013) [pdf](#)
- [20] K. Saito, M. Kimura, K. Ohara, H. Motoda, “Which Targets to Contact First to Maximize Influence over Social Network, Proceedings of the 6th International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP2013), LNCS 7812, pp.359-367 (2013) [pdf](#)
- [21] K. Saito, K. Ohara, M. Kimura and H. Motoda, “Burst Detection in a Sequence of Tweets based on Information Diffusion Model,” Proceeding of The 15th International Conference on Discovery Science (DS2012), LNAI 7569, pp.239-253 (2012) [pdf](#)
- [22] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Opinion Formation by Voter Model with Temporal Decay Dynamics,” Proceeding of The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD2012), LNAI 7524, pp.565-580 (2012) [pdf](#)
- [23] S. Kato, A. Koide, T. Fushimi, K. Saito and H. Motoda, “Network Analysis of Three Twitter Functions: Favorite, Follow and Mention,” Proceedings of the 12th International Workshop PKAW 2012: Knowledge Management and Acquisition for Intelligent Systems, LNAI 7457, pp.298-312 (2012) [pdf](#)
- [24] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Graph embedding on spheres and its application to visualization of information diffusion data,” Proceedings of the International Workshop on Mining Social Network Dynamics (MSND2012), pp.1137-1144 (2012) (<http://www2012.org/proceedings/companion/p1137.pdf>) [pdf](#)
- [25] K. Ohara, K. Saito, M. Kimura and H. Motoda, “Effect of In/Out-Degree

- Correlation on Influence Degree of Two Contrasting Information Diffusion Models,” Proceedings of the 5th International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP2012), LNCS 7227, pp.131-138 (2012) [pdf](#)
- [26] T. Fushimi, Y. Kubota, K. Saito, M. Kimura, K. Ohara and H. Motoda, “Speeding up Bipartite Graph Visualization Method,” Proceedings of the 24th Australasian Joint Conference on Artificial Intelligence, LNAI-7106, pp.697-706 (2011) [pdf](#)
- [27] Y. Yamagishi, K. Saito, K. Ohara, M. Kimura, and H. Motoda, “Learning Attribute-weighted Voter Model over Social Networks,” Proceedings of the 3rd Asian Conference on Machine Learning, JMLR Workshop and Conference Proceedings, Vol.20, pp.263-280 (2011) [pdf](#)
- [28] A. Koide, K. Saito, K. Ohara, M. Kimura, and H. Motoda, “Estimating Diffusion Probability Changes for AsIC-SIS Model from Information Diffusion Results,” Proceedings of the 3rd Asian Conference on Machine Learning, JMLR Workshop and Conference Proceedings, Vol.20, pp.297-315 (2011) [pdf](#)
- [29] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Detecting Anti-majority Opinionists Using Value-weighted Mixture Voter Model,” Proceedings of the 14th International Conference on Discovery Science (DS2011), LNAI 6926, pp.150-164 (2011) [pdf](#)
- [30] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Efficient Detection of Hot Span in Information Diffusion from Observation,” Proceedings of the IJCAI Workshop on Link Analysis in Heterogeneous Information Networks (HINA2011), arXiv: 1110.2659 (2011) [pdf](#)
- [31] K. Saito, K. Ohara, Y. Yamagishi, M. Kimura and H. Motoda, “Learning Diffusion Probability based on Node Attributes in Social Networks,” Proceedings of the 19th International Symposium on Methodologies for Intelligent Systems (ISMIS2011), LNAI 6804, pp.153-162 (2011) [pdf](#)
- [32] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Detecting Changes in Opinion Value Distribution for Voter Model,” Proceedings of the 4th International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP2011), LNAI 6389, pp.89-96 (2011) [pdf](#)
- [33] H. Liu, H. Motoda, R. Setiono, and Z. Zhao, “Feature selection: An ever evolving frontier in data mining,” J. of Machine Learning Research, Vol. 10, pp.4-13 (2010) [pdf](#)
- [34] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Discovery of Super-Mediators of Information Diffusion in Social Networks,” Proceedings of the 13th International Conference on Discovery Science (DS2010), LNAI 6332, pp.144-158 (2010) [pdf](#)
- [35] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Generative Models of Information Diffusion with Asynchronous Time-delay,” Proceedings of the 2nd Asian Conference on Machine Learning, JMLR Workshop and Conference

- Proceedings, Vol.13, pp.193-208 (2010) [pdf](#)
- [36] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Selecting Information Diffusion Models over Social Networks for Behavioral Analysis,” Proceedings of the 2010 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD 2010), LNAI 6323, pp.180-195 (2010) [pdf](#)
  - [37] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Efficient Estimation of Cumulative Influence for Multiple Activation Information Diffusion Model with Continuous Time Delay,” Proceedings of the 11th Pacific Rim International Conference on Artificial Intelligence (PRICAI2010), LNAI 6230, pp.244-255 (2010) [pdf](#)
  - [38] T. Fushimi, K. Saito, M. Kimura, H. Motoda and K. Ohara, “Finding Relation between PageRank and Voter Model,” Proceedings of the 11th International Workshop PKAW 2010: Knowledge Management and Acquisition for Smart Systems and Services, LNAI 6232, pp.208-222 (2010) [pdf](#)
  - [39] Y. Yoshikawa, K. Saito, H. Motoda, M. Kimura and K. Ohara, “Acquiring Expected Influence Curve from Single Diffusion Sequence,” Proceedings of the 11th International Workshop PKAW 2010: Knowledge Management and Acquisition for Smart Systems and Services, LNAI 6232, pp.273-287 (2010) [pdf](#)
  - [40] M. Kimura, K. Saito, K. Ohara and H. Motoda, “Learning to Predict Opinion Share in Social Networks,” Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI10), pp.1364-1370 (2010) [pdf](#)
  - [41] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Behavioral Analyses of Information Diffusion Models by Observed Data of Social Network,” Proceedings of the the 2010 International Conference on Social Computing, Behavioral Modeling, and Prediction (SBP 2010), Springer LNCS 6007, pp.149-158 (2010) [pdf](#)
  - [42] K. Saito, M. Kimura, K. Ohara and H. Motoda, “Learning Continuous-Time Information Diffusion Model for Social Behavioral Data Analysis,” Proc. of the First Asian Conference on Machine Learning, Springer LNAI 5828, pp.322-337 (2009) [pdf](#)
  - [43] K. Saito, M. Kimura and H. Motoda, “Discovering Influential Nodes for SIS models in Social Networks,” Proc. of the Twelfth International Conference of Discovery Science (DS2009), Springer LNAI 5808, pp.302-316 (2009) [pdf](#)
  - [44] M. Kimura, K. Saito and H. Motoda, “Efficient Estimation of Influence Functions for SIS Model on Social Networks,” Proc. of Twenty-first International Joint Conference on Artificial Intelligence, pp.2046-2051 (2009) [pdf](#)
  - [45] Kouzou Ohara, Masahiro Hara, Kiyoto Takabayashi, Hiroshi Motoda and Takashi Washio, “Pruning Strategies Based on the Upper Bound of Information Gain for Discriminative Subgraph Mining,” Proc. of PKAW2008, pp.1-11 (2008) [pdf](#)

- [46] Takayasu Fushimi, Takashi Kawazoe, K. Saito, M. Kimura, and H. Motoda, “What does an Information Diffusion Model Tell about Social Network Structure?,” Proc. of PKAW2008, pp.288-299 (2008) [pdf](#)
- [47] M. Kimura, K. Saito and H. Motoda, “Solving the Contamination Minimization Problem on Networks for the Linear Threshold Model,” Proc. of the The 10th Pacific Rim International Conference on Artificial Intelligence (PRICAI08), pp.977-984 (2008) [pdf](#)
- [48] K. Saito, M. Kimura and H. Motoda, “Effective Visualization of Information Diffusion Process over Complex Networks,” Proc. of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), Part II, pp.326-341 (2008) [pdf](#)
- [49] M. Kimura, K. Saito and H. Motoda, “Minimizing the Spread of Contamination by Blocking Links in a Network,” Proc. of the The 23rd AAAI Conference on Artificial Intelligence (AAAI08), pp.1175-1180 (2008) [pdf](#)
- [50] M. Kimura, K. Yamakawa, K. Saito and H. Motoda, “Community Analysis of Influential Nodes for Information Diffusion on a Social Network,” Proc. of IEEE World Congress on Computational Intelligence, pp.1359-1364 (2008) [pdf](#)
- [51] Y. S. Kim, B. H. Kang, P. Compton and H. Motoda, “Search Engine Retrieval of Changing Information,” Proc. of the 16th International World Wide Web Conference, pp.1195-1196 (2007) [pdf](#)
- [52] H. Motoda, “What Can We Do with Graph-Structured Data? - A Data Mining Perspective -”, Proc. of AI 2006, A. Sattar and B.H. Kang (Eds.), Springer LNAI 4304, pp.1-2 (2006) [pdf](#)
- [53] K. Fukata, T. Washio and H. Motoda, “A Method to Search ARX Model Orders and Its Application to Sales Dynamics Analysis”, Proceedings of Sixth IEEE International Conference on Data Mining, Workshop on Risk Mining 2006, pp.590-595 (2006) [pdf](#)
- [54] K. Takabayashi, P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “Extracting Discriminative Patterns from Graph Structured Data using Constrained Search”, Advances in Knowledge Acquisition and Management, A. Hoffmann, B.H. Kang, D. Richards, and S. Tsumoto (Eds.). Springer, LNAI 4303, pp.64-74 (2006) [pdf](#)
- [55] K. Takabayashi, P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “Mining Discriminative Patterns from Graph Structured Data with Constrained Search”, Proc. of the Workshop on Mining and Learning with Graphs, pp.205-212 (2006) [pdf](#)
- [56] T. Washio, K. Nakanishi, H. Motoda, and T. Okada, “Mutagenicity Risk Analysis by Using Class Association Rules T. Washio et al. (Eds.): JSAI 2005 Workshops, LNAI 4012, pp.436-45, Springer-Verlag (2006) [pdf](#)
- [57] T. Washio, Y. Shinnou, K. Yada, H. Motoda and T. Okada,” Analysis on a Relation between Enterprise Profit and Financial Sate by Using Data Mining

- Techniques,” Working Notes of RM2006: Workshop on Risk Mining, Data Mining for Detection, Analysis and Utilization of Risk Information, Collocated with The 20th National Meeting of JSAI2006, pp.35-46 (2006), also appeared in *New Frontiers in Artificial Intelligence*, LNCS 4384, Springer-Verlag pp.305-316 (2007)
- [58] K. Takabayashi, P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “Extracting Discriminative Patterns from Graph Structured Data using Constrained Search”, Proc. of the Pacific Knowledge Acquisition Workshop, pp. 62-72 (2006) [pdf](#)
- [59] P. C. Nguyen, K. Ohara, A. Mogi, H. Motoda and T. Washio, “Constructing Decision Trees for Graph-Structured Data by Chunkingless Graph-Based Induction ”, Proc. of 10th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2006, Lecture Notes in Artificial Intelligence, Springer-Verlag, LNAI 3918, pp. 390-399 (2006) [pdf](#)
- [60] T. Yoshida, R. Shoda and H. Motoda, “Graph Clustering Based on Structural Similarity of Fragments”, Proc. of the International Workshop on Federation over the Web, Springer, LNAI 3847, pp. 97-114 (2006) [pdf](#)
- [61] P. C. Nguyen, K. Ohara, A. Mogi, H. Motoda and T. Washio, “Decision Tree Construction by Chunkingless Graph-Based Induction for Graph-Structured Data”, Proc. of the International Workshop on Mining Complex Data, pp.65-72 (2005) [pdf](#)
- [62] T. Washio, Y. Mitsunaga and H. Motoda, “Mining Quantitative Frequent Itemsets Using Adaptive Density-based Subspace Clustering”, Proc. of the Fifth IEEE International Conference on Data Mining, pp.793-796 (2005) [pdf](#)
- [63] A. Termier, M. Rousset, M. Sebag, K. Ohara, T. Washio and H. Motoda, “Efficient Mining of High Branching Factor Attribute Trees”, Proc. of the Fifth IEEE International Conference on Data Mining, pp.785-788 (2005) [pdf](#)
- [64] T. Washio, F. Adachi and H. Motoda, “SCALETRACK: A System to Discover Dynamic Law Equations Containing Hidden States and Chaos”, Proc. of the Eighth International Conference on Discovery Science, Lecture Notes in Artificial Intelligence, Springer-Verlag, LNAI 3735, pp.253-266 (2005)
- [65] T. Washio, K. Nakanishi and H. Motoda, “Deriving Class Association Rules Based on Levelwise Subspace Clustering”, Proc. of the 9th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), Lecture Notes in Artificial Intelligence, Springer-Verlag, LNAI 3721, pp.692-700 (2005)
- [66] A. Termier, M. Rousset, M. Sebag, K. Ohara, T. Washio and H. Motoda, “Computation-time Efficient and Robust Attribute Tree Mining with DRYADE-PARENT”, Proc. of Third International Workshop on Mining Graphs, Trees and Sequences (MGTS), pp.63-76 (2005) [pdf](#)
- [67] T. Washio, F. Adachi and H. Motoda, “Discovering Time Differential Law Equations Containing Hidden State Variables and Chaotic Dynamics”, Proc.



- of Nineteenth International Joint Conference on Artificial Intelligence, pp.1642-1644 (2005)
- [68] K. Yada, H. Motoda and T. Washio, “A Data Mining for Graph Structure Data Helps to Discover New Knowledge in Consumer Behavior and Makes Profits”, Proc. CD of AMS International Retailing Conference, Reims, France), pp.1-17 (2005)
  - [69] P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “Cl-GBI: A Novel Approach for Extracting Typical Patterns from Graph-Structured Data”, Proceedings of 9th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2005, Lecture Notes in Artificial Intelligence, Springer-Verlag, LNAI 3518, Advances in Knowledge Discovery and Data Mining, pp.639-649 (2005)
  - [70] T. Yoshida and H. Motoda, “Performance Evaluation of Fusing Two Different Knowledge Sources in Ripple Down Rules Method”, Proc. of The Third International Conference on Active Media Technology (AMT2005), pp.63-68 (2005) [pdf](#)
  - [71] T. Yoshida, A. Mogi, K. Ohara, H. Motoda and T. Washio, “Refining Diagnostic Knowledge Extracted from Interferon Therapy”, Proc. of The Third International Conference on Active Media Technology (AMT2005), pp.69-74 (2005) [pdf](#)
  - [72] T. Washio, K. Nakanishi, H. Motoda, T. Okada, “Mutagenicity Risk Analysis by Using Class Association Rules”, Proc. of the First International Workshop on Risk Management Systems with Intelligent Data Analysis (RMDA-2005), pp.23-34 (2005)
  - [73] K. Yoshida, F. Adachi, T. Washio, H. Motoda, T. Homma, A. Hakashima , H. Fujikawa and K. Yamazaki, “Memory Management of Density-based Spam Detector”, Proc. of International Workshop on Computer Intelligence for Exabyte Scale Data Explosion, SAINT2005 Workshops, The 2005 International Symposium on Applications and the Internet (SAINT2005), pp.370-376 (2005)
  - [74] T. Washio, A. Fujimoto and H. Motoda, “A Framework of Numerical Basket Analysis”, Proc. of International Workshop on Computer Intelligence for Exabyte Scale Data Explosion, SAINT2005 Workshops, The 2005 International Symposium on Applications and the Internet (SAINT2005), pp.340-343 (2005)
  - [75] M.Kuroda, K.Yada, H.Motoda and T.Washio, “Knowledge Discovery from Consumer Behavior in an Alcohol Market by Using Graph Mining Technique”, Joint Workshop of Vietnamese Society of AI, SIGKBS-JSAI, ICS-IPSJ and IEICE-SIGAI on Active Mining, pp.111-116 (2004)
  - [76] T. Washio, A. Fujimoto and H. Motoda, “Extention of Basket Analysis and Quantitative Association Rule Mining”, Joint Workshop of Vietnamese Society of AI, SIGKBS-JSAI, ICS-IPSJ and IEICE-SIGAI on Active Mining, pp.117-122 (2004)
  - [77] F. Adachi, T. Washio and H. Motoda, “Scientific Discovery of Dynamic Hid-

- den States and Differential Law Equations”, Joint Workshop of Vietnamese Society of AI, SIGKBS-JSAI, ICS-IPSJ and IEICE-SIGAI on Active Mining, pp.175-180 (2004)
- [78] P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “CI-GBI: A Novel Strategy to Extract Typical Patterns from Graph Data”, Joint Workshop of Vietnamese Society of AI, SIGKBS-JSAI, ICS-IPSJ and IEICE-SIGAI on Active Mining, pp.105-110 (2004)
- [79] A. Mogi, P. C. Nguyen, K. Ohara, H. Motoda and T. Washio, “DT-CIGBI: Analysis of Hepatitis Dataset by Using CI-GBI”, Joint Workshop of Vietnamese Society of AI, SIGKBS-JSAI, ICS-IPSJ and IEICE-SIGAI on Active Mining, pp.43-48 (2004)
- [80] K. Yada, H. Motoda, T. Washio and A. Miyawaki, “Consumer Behavior Analysis by Graph Mining Technique”, Proc. of KES2004, Springer Verlag, LNAI 3214, pp.800-806 (2004) [pdf](#)
- [81] K. Ohara, Y. Onishi, N. Babaguchi and H. Motoda, “Constructive Inductive Learning based on Meta-Attributes”, Proc. of the 7th International Conference on Discovery Science, pp.142-154 (2004)
- [82] K. Ohara, T. Yoshida, W. Geamsakul, H. Motoda, T. Washio, H. Yokoi and K. Takabayashi, “Analysis of Hepatitis Dataset by Decision Tree Graph-Based Induction”, Proc. of Discovery Challenge, Workshop held in conjunction with the 8th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD) pp.173-184 (2004)
- [83] P. C. Nguyen, T. Washio, K. Ohara and H. Motoda, “Using a Hash-based Method for Apriori-based Graph Mining”, Proc. of the 8th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), pp.349-361 (2004)
- [84] K. Yoshida, F. Adachi, T. Washio, H. Motoda, T. Homma, A. Hakashima, H. Fujikawa and K. Yamazaki, “Density-Based Spam Detector”, Proceedings of the Tenth SIGKDD conference, pp.486-493 (2004)
- [85] T. Yoshida, W. Geamsakul, A. Mogi, K. Ohara, H. Motoda, T. Washio, H. Yokoi and K. Takabayashi, “Preliminary Analysis of Interferon Therapy by Graph-Based Induction”, Proc. of the Third International Workshop on Active Mining (AM-2004), pp.31-40 (2004)
- [86] H. Motoda, T. Yoshida, K. Ohara, W. Geamsakul, T. Washio, H. Yokoi and K. Takabayashi, “Application of DT-GBI to Promoter and Hepatitis Datasets, Proc. of the Knowledge Discovery in BioMedicine, pp. 10-40 (2004)
- [87] A. Mandvika, H. Liu and H. Motoda, “Constructing Compact Dual Ensembles for Efficient Active Learning”, Proc. of the Pacific Knowledge Acquisition Workshop, ISBN No. 1-877314-34-X, pp.29-43 (2004) [pdf](#)
- [88] A. Mandvika, H. Liu and H. Motoda, “Compact Dual Ensembles for Active Learning”, Proc. of 8th Pacific-Asia Conference on Knowledge Discovery and Data Mining, LNAI3056, pp.293-297 (2004) [pdf](#)

- [89] W. Geamsakul, T. Matsuda, T. Yoshida, H. Motoda and T. Washio, “Performance Evaluation of Decision Tree Graph-Based Induction”, Sixth International Conference on Discovery Science, Lecture Notes in Artificial Intelligence, LNAI 2874, Springer, pp.128-140 (2003)
- [90] W. Geamsakul, T. Matsuda, T. Yoshida, H. Motoda and T. Washio, “Constructing a Decision Tree for Graph Structured Data”, Proc. of First International Workshop on Mining Graphs, Trees and Sequences (MGTS-2003), 14th European Conference on Machine Learning (ECML’03) and 7th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD’03) pp.1-10 (2003)
- [91] A. Inokuchi, T. Washio and H. Motoda, “Specific Bias for Mining Frequent Substructures”, Proc. of First International Workshop on Mining Graphs, Trees and Sequences (MGTS-2003), 14th European Conference on Machine Learning (ECML’03) and 7th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD’03) pp.45-54 (2003)
- [92] F. Adachi, T. Washio, H. Motoda and H. Hanafusa, “Development of Generic Search Method Based on Transformation Invariance”, Proc. of the 14th International Symposium on Methodologies for Intelligent Systems, ISMIS03, pp. 486-495 (2003)
- [93] W. Geamsakul, T. Yoshida, K. Ohara, H. Motoda and T. Washio, “Extracting Diagnostic Knowledge from Hepatitis Dataset by Decision Tree Graph-Based Induction”, Proc. of International Workshop on Active Mining 2003, pp. 106-117 (2003).
- [94] W. Geamsakul, T. Matsuda, T. Yoshida, H. Motoda and T. Washio, “Classifier Construction by Graph-Based Induction for Graph-Structured Data”, Proceedings of 7th Pacific-Asia Conference on Knowledge Discovery and Data Mining, LNAI2637, pp.52-62 (2003)
- [95] H. Liu, L. Yu, D. Manoranjan and H. Motoda, “Active Feature Selection Using Classes”, Proceedings of 7th Pacific-Asia Conference on Knowledge Discovery and Data Mining, LNAI2637, pp.474-485 (2003) [pdf](#)
- [96] T. Yoshida, T. Wada, H. Motoda and T. Washio, “Adaptive Ripple Down Rules Method base on Minimum Description Length Principle”, Proceedings of 2002 IEEE International Conference on Data Mining, pp.530-537 (2002)
- [97] T. Matsuda, T. Yoshida, H. Motoda and T. Washio, “Active Mining from Hepatitis Data by Beam-wise GBI”, Proceeding of International Workshop on Active Mining, pp. 37-44 (2002)
- [98] F. Adachi, T. Washio, H. Motoda and T. Washio, “Development of Generic Search Method Based on Transformation Invariance”, Proceeding of International Workshop on Active Mining, pp. 52-57 (2002)
- [99] T. Matsuda, H. Motoda, T. Yoshida and T. Washio, “Preliminary Analysis of Hepatitis Data by Beam-wise Graph-Based Induction”, The Discovery Challenge Workshop, ECML/PKDD 2002 (2002)

- [100] T. Matsuda, H. Motoda, T. Yoshida and T. Washio, “Knowledge Discovery from Structured Data by Beam-wise Graph-Based Induction”, Proc. of Seventh Pacific Rim International Conference on Artificial Intelligence, Springer, LNAI 2417, pp.255-264 (2002)
- [101] T. Wada, T. Yoshida, H. Motoda and T. Washio, “Extension of the RDR method that can Adapt to Environmental Changes and Acquire Knowledge from Both Experts and Data”, Proc. of Seventh Pacific Rim International Conference on Artificial Intelligence, Springer, LNAI 2417, pp.218-227 (2002)
- [102] K. Fujiwara, T. Yoshida, H. Motoda and T. Washio, “Case Generation Method for Constructing an RDR Knowledge Base”, Proc. of Seventh Pacific Rim International Conference on Artificial Intelligence, Springer, LNAI 2417, pp.228-237 (2002)
- [103] T. Matsuda, H. Motoda, T. Yoshida and T. Washio, “Beam-wise Graph-Based Induction for Structured Data Mining”, Proc. of Pacific Rim Knowledge Acquisition Workshop (PKAW2002), pp.174-188 (2002)
- [104] T. Wada, T. Yoshida, H. Motoda and T. Washio, “Reorganizing Knowledge Base of RDR for Adaptation to Environmental Changes”, Proc. of Pacific Rim Knowledge Acquisition Workshop (PKAW2002), pp.189-202 (2002)
- [105] T. Matsuda, H. Motoda, T. Yoshida and T. Washio, “Mining Patterns from Structured Data by Beam-wise Graph-Based Induction”, Workshop Notes on Multi-Relational Data Mining, KDD-2002, pp.113-129 (2002)
- [106] H. Motoda and H. Liu, “Feature Selection, Extraction and Construction”, Invited, Proc. of Foundation of Data Mining, PAKDD02, pp.67-72 (2002) [pdf](#)
- [107] T. Washio and H. Motoda, “A Method to Discover Admissible Model Equations from Observed Data”, Working Notes of 4th International Workshop on Similarity Methods, pp.231-246 (2001)
- [108] M. Tsukada, T. Washio and H. Motoda, “Automatic Web-Page Classification by Using Machine Learning Methods”, Web Intelligence Research and Development (Proc. Of First Asia Pacific Conf., WI2001), LNAI2198, Springer, pp.303-313 (2001)
- [109] T. Ikeda, T. Washio and H. Motoda, “Basket Analysis on Meningitis Data”, New Frontiers in Artificial Intelligence, Joint JSAI 2001 Workshop Post-Proceedings, LNAI 2253, pp.516-524 (Working Notes of JSAI KDD Challenge 2001, JKDD01, pp.33-40 (2001)
- [110] T. Washio and H. Motoda, “Discovering Admissible Simultaneous Equation Models from Observed Data”, Machine Learning: ECML2001, Proc. of the 12th European Conference on Machine Learning, Springer, pp.539-551 (2001) [pdf](#)
- [111] M. Terabe, T. Washio and H. Motoda, “The Effect of Subsampling Rate on S<sup>3</sup>Bagging Performance”, Proc. of Active Learning, Database Sampling, Experimental Design: Views on Instance Selection, pp. 48-55 (Workshop of ECML/PKDD2001 (2001)

- [112] M. Terabe, T. Washio and H. Motoda, “S<sup>3</sup>Bagging: Fast Classifier Induction Method with Subsampling and Bagging”, *Advances in Intelligent Data Analysis, Proc. of the Fourth International Symposium on Intelligent Data Analysis*, Springer, pp. 177-186 (2001)
- [113] T. Washio and H. Motoda, “Discovery of Law Equations governing Human Affinity under Trade-off between Cost and Risk”, *Proc. of International Meeting of The Psychometric Society (IMPS-2001)*, p.74 (2001) [pdf](#)
- [114] T. Washio and H. Motoda, “A Method to Discover Admissible Model Equations from Observed Data”, *Working Notes of 4th International Workshop on Similarity Methods*, pp.231-246 (2001)
- [115] T. Wada, H. Motoda and T. Washio, “Knowledge Acquisition from Both Human Expert and Data”, *Proc. of the Fifth Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD01), Lecture Notes in Artificial Intelligence*, Springer-Verlag, pp.550-561 (2001)
- [116] T. Wada, H. Motoda and T. Washio, “Integrating Inductive Learning and Knowledge Acquisition in the Ripple Down Rules Method,” *Proc. of the 6th Pacific Rim Knowledge Acquisition Workshop (PKAW2000)*, pp.325-340 (2000)
- [117] T. Matsuda, T. Horiuchi, H. Motoda and T. Washio, “Graph-Based Induction for General Graph Structured Data and Its Application to Chemical Compound Data”, *Proc. of the Third International Conference of Discovery Science (DS2000)*, pp.99-111 (2000)
- [118] T. Washio and H. Motoda, “Modeling Admissible Simultaneous Equation Systems Based on Complete Subsets and Scale-Type Constraints”, *Working note of Similarity Methods: 3rd International Workshop*, pp. 73-84 (2000) [pdf](#)
- [119] A. Inokuchi, T. Washio and H. Motoda, “An Apriori-Based Algorithm for Mining Frequent Substructures from Graph Data”, *Proc. of PKDD2000: Principles of Data Mining and Knowledge Discovery, 4th European Conference, Lecture notes in Artificial Intelligence 1910, Jan Zytkow Eds.*, pp.13-23 (2000)
- [120] T. Washio, H. Motoda and Y. Niwa, “Enhancing the Plausibility of Law Equation Discovery”, *Proceedings of the Seventeenth International Conference on Machine Learning (ICML2000)*, pp.1127-1134 (2000) [pdf](#)
- [121] H. Motoda, T. Washio, T. Horiuchi, A. Inokuchi and T. Matsuda, “Mining Patterns from Graph Structured Data”, *Proc. of the Fifth International Workshop on Multistrategy Learning (MSL2000)*, pp.137-150 (2000)
- [122] A. Inokuchi, T. Washio, T. Okada and H. Motoda, “Mining Algebraic Mining Method of Graph Substructures to Mutagenesis Data Analysis”, *Proc. of the International Workshop of KDD Challenge on Real-world Data, PAKDD2000*, pp.41-46 (2000)
- [123] T. Matsuda, T. Horiuchi, H. Motoda and T. Washio, “Extension of Graph-

- Based Induction for General Graph Structured Data”, Proc. of the Fourth Pacific-Asia Conference of Knowledge Discovery and Data Mining (PAKDD2000), pp.420-431 (2000)
- [124] M. Dash, H. Liu and H. Motoda, “Consistency Based Feature Selection”, Proc. of the Fourth Pacific-Asia Conference of Knowledge Discovery and Data Mining (PAKDD2000), pp.98-109 (2000) [pdf](#)
- [125] T. Washio, H. Motoda and Y. Niwa, “Discovering Admissible Model Equations from Observed Data Based on Scale-Types and Identity Constraints”, Proc. of IJCAI-99: the Sixteenth International Joint Conference on Artificial Intelligence, pp.772-779 (1999) [pdf](#)
- [126] T. Washio and H. Motoda, “Extension of Dimensional Analysis for Scale-types and its Application to Discovery of Admissible Models of Complex Processes”, Working Notes of the 2nd International Workshop on Similarity Method, pp. 129-147 (1999) [pdf](#)
- [127] M. Terabe, O. Katai, T. Sawaragi, T. Washio and H. Motoda, “A Data Pre-processing Method Using Association Rules of Attributes for Improving Decision Tree”, Proc. of the Third Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD99), Lecture Notes in Computer Science Series, Springer-Verlag, pp.143-147 (1999)
- [128] T. Matsuda, T. Horiuchi, H. Motoda, T. Washio, K. Kumasawa, and N. Arai, “Graph-Based Induction for General Graph Structured Data”, Proceedings of the 2nd International Conference, Discovery Science 1999 (DS’99): Lecture Notes in Artificial Intelligence 1721, pp. 340-341 (1999)
- [129] A. Inokuchi, T. Washio and H. Motoda, “Derivation of the Topology Structure from Massive Graph Data”, Proceedings of the 2nd International Conference, Discovery Science 1999 (DS’99): Lecture Notes in Artificial Intelligence 1721, pp. 330-331 (1999)
- [130] T. Washio and H. Motoda, “Automated Scientific Modeling from Observed Data and its Application to Socio-Psychology”, Working notes of QR’99: The Thirteenth International Workshop on Qualitative Reasoning, pp. 240-249 (1999) [pdf](#)
- [131] A. Inokuchi, T. Washio and H. Motoda, “Basket Analysis for Graph Structured Data”, Proc. of the Third Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD99), Lecture Notes in Computer Science Series, Springer-Verlag, pp.420-431 (1999)
- [132] T. Wada, T. Horiuchi, H. Motoda and T. Washio, “Characterization of Default Knowledge in Ripple Down Rules Method”, Proc. of the Third Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD99), Lecture Notes in Computer Science Series, Springer-Verlag, pp.284-295 (1999)
- [133] H. Motoda, “Computer Assisted Discovery of First Principle Equations from Numeric Data”, Proc. of the Third Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD99), Lecture Notes in Computer Science

Series, Springer-Verlag, pp.2-2 (1999)

- [134] K. Yoshida and H. Motoda, "Table, Graph and Logic for Induction", Machine Intelligence, Vol.15, pp 298-311, Oxford Univ. Press (1999)
- [135] T. Washio and H. Motoda, "Development of SDS2: Smart Discovery System for Simultaneous Equation Systems", Discovery Science, Lecture Notes in Artificial Intelligence 1532, Springer, pp.352-363 (1998) [pdf](#)
- [136] T. Wada, T. Horiuchi, H. Motoda and T. Washio, "A New Look at Default Knowledge in Ripple Down Rules Method", Proc. of Pacific Rim Knowledge Acquisition Workshop (PKAW), pp.171-186 (1998)
- [137] T. Washio and H. Motoda, "Discovering Admissible Simultaneous Equations of Large Scale Systems, Proc. of AAAI-98, Fifteenth National Conference on Artificial Intelligence, pp. 189-196 (1998) [pdf](#)
- [138] T. Washio and H. Motoda, "Structured Evaluation Based on Axiomatic Measurement," Proc. of PRESTO: Information and Human Activity Workshop, pp.14-17 (1998)
- [139] H. Liu, H. Motoda and M. Dash, "A Monotonic Measure for Optimal Feature Selection", Machine Learning: ECML-98, Lecture Notes in Artificial Intelligence, Springer, pp.101-106 (1998) [pdf](#)
- [140] T. Washio, H. Matsuura and H. Motoda, "Mining Association Rules for Estimation and Prediction", Research and Development in Knowledge Discovery and Data Mining, Lecture Notes in Artificial Intelligence 1394, Springer, pp.417-419 (1998)
- [141] S. Hori, Y. Kawashima, T. Yukimatsu, H. taki, T. Washio and H. Motoda A Watchdog System for Field Quality - A Basket Analysis Approach - US-Japan FA Symposium, Vol.2, pp.741-748 (1998)
- [142] H. Motoda and K. Yoshida, Machine Learning Techniques to Make Computers Easier to Use, Proc. of IJCAI'97: Fifteenth International Joint Conference on Artificial Intelligence, pp.1622-1631, Nagoya Congress Center, Nagoya, Japan (1997)
- [143] T. Washio and H. Motoda, "Discovering Admissible Models of Complex Systems Based on Scale-Types and Identity Constraints," Proc. of IJCAI'97: Fifteenth International Joint Conference on Artificial Intelligence, pp.810-817, Nagoya Congress Center, Nagoya, Japan (1997) [pdf](#)
- [144] H. Motoda, T. Washio, T. Kayama and K. Yoshida, "Extracting Behavioral Patterns from Relational History Data," Proc. of the Workshop on Machine Learning for User Modeling held in conjunction with Sixth International Conference on User Modeling, pp. 6-1, 6-6, Chia Laguna, Sardinia, 2-5 June (1997)
- [145] T. Washio and H. Motoda, "Discovery of First Principle Based on Data-Driven Reasoning", Proc. of the First Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD97), pp. 169-182 (1997)

- [146] T. Washio and H. Motoda, "Discovery of Possible Law Formulae based on Measurement Scale", Proc. of the Fourth International Workshop on Rough Sets, Fuzzy Sets, and Machine Discovery, pp.209-216 (1996)
- [147] T. Washio, H. Motoda and M. Kitamura, "Decision Process Modeling Based on Consensus Among Fuzzy Integral and AHP," Proceeding of the 4th International Conference on Soft Computing, Vol.1, pp.308-311 (October, 1996) Kyushu Technical Institute , Izuka , Kyushu
- [148] B.H. Kang, K. Yoshida, H. Motoda, M. Iwayama and P. Compton, "Help Desk System with Intelligent Interface", Proc. of the 1966 Pacific Rim Knowledge Acquisition Workshop, pp. 313-332 (1996)
- [149] H. Motoda, "Application of Graph-Based Induction to Automated User Modeling," Proc. of Machine Learning meets Human Computer Interaction, pp.1-4 (1996)
- [150] T. Washio and H. Motoda, "Discovery of Possible Law Equations by Combined Use of Scale-Based and Data-Driven Reasoning", Proc. of the 1966 Pacific Rim Knowledge Acquisition Workshop, pp. 130-149 (1996)
- [151] T. Washio and H. Motoda, "A History-oriented Envisioning Method", PRICAI'96: Topics in Artificial Intelligence, Lecture Notes in Artificial Intelligence 1114 (Proc. of the Fourth Pacific Rim International Conference on Artificial Intelligence, Cairns, Australia, Aug. 26-30), pp. 312-323 (1996)
- [152] T. Washio and H. Motoda, "Scale-based Reasoning on Possible Law Equations", Proc. of the Tenth International Workshop Qualitative Reasoning, Stanford Sierra Camp, Fallen Leaf Lake, California, pp.255-264 (1996)
- [153] H. Motoda, "Can Machine Learn in the Same Way as Humand Do?," Proc. of First Interenational Conference on Applied Ergonomics, (Advances in Applied Ergonimics, A. F. Özok and G Salvendy (Editors), USA Publishing), pp.479-484 (1996)
- [154] S. Nishioka, A. Kawaguchi, and H. Motoda, "Process labeled kernel profiling: a new facility to profile system activities," Proc. of USENIX 1996 Annual Techincal Conference, pp.295-306 (1995)
- [155] H. Narayanan, M. Suwa, and H. Motoda, "Diagram-based Problem Solving: The Case of an Impossible Problem," Proc. of the Seventeenth Annual Conference of the Cognitive Science Society, pp.206-211 (1995)
- [156] K. Yoshida and H. Motoda, "Automated user Modeling for Intelligent Interface, Proc. of the Sixth International Conference on Human-Computer Interaction, (Symbiosis of Human and Artifact, Y. Anzai, K. Ogawa and H. Mori (Editors), Elsevier Science B.V.), pp.1103-1108 (1995)
- [157] M. Suwa and H. Motoda, "On Dealing with the Dynamic Utility of Learned Knowledge," Handout of International Workshop on Machine Intelligence (1993), Revised paper in Machine Intelligence, Vol.14, pp.111-130, Oxford Univ. Press (1995)



- [158] A. Kawaguchi, S. Nishioka and H. Motoda, "A Flash-Memory Based File System," Proc. of USENIX 1995 Annual Technical Conference, pp.155-164 (1995)
- [159] K. Yoshida and H. Motoda, "User Model Acquisition for Intelligent User Interface," Proc. of the Third Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop (JKAW94 ), pp.107-119 (1994)
- [160] H. Narayanan, M. Suwa, and H. Motoda, "How Things Appear to Work: Predicting Behaviors from Device Diagrams," Proc. of Twelveth National Conference on Artificial Intelligence (AAAI-94), Vol. 2, pp.1161-1167 (1994)
- [161] H. Narayanan, M. Suwa, and H. Motoda, "Qualitative Behavior Hypothesis from Device Diagrams," Proc. of the Eighth International Workshop on Qualitative Reasoning about Physical Systems, pp.197-204 (1994)
- [162] M. Suwa and H. Motoda, "PCLEARN: A model for learning perceptual-chunks," Proc. of the Sixteenth Annual Conference of the Cognitive Science Society, pp.830-835 (1994)
- [163] H. Narayanan, M. Suwa, and H. Motoda, "A Study of Diagrammatic Reasoning from Verbal and Gestural Data," Proc. of the Sixteenth Annual Conference of the Cognitive Science Society, pp.652-657 (1994)
- [164] M. Iwayama, N. Indurkha and H. Motoda, "A New Algorithm for Automatic Configuration of Hidden Markov Models and its Application to Transmembrane Domain Classification," Proc. of '93 Japan/Korea Joint Conference on Expert Systems, pp.319-324 (1994)
- [165] M. Suwa and H. Motoda, "Learning Perceptually-chunked Macro-operators", Handout of International Workshop on Machine Intelligence (1992), Revised paper in Machine Intelligence, Vol.13, pp.419-440, Oxford Univ. Press (1994)
- [166] K. Yoshida, H. Motoda and N. Indurkha, "Unifying Learning Methods by Colored Digraphs," Proc. of ALT93, pp.342-355 (1993)
- [167] M. Suwa and H. Motoda, "A perceptual criterion for visually controlling learning," Proc. of ALT93, pp.356-369 (1993)
- [168] M. Iwayama, N. Indurkha and H. Motoda, "A New Algorithm for Automatic Configuration of Hidden Markov Models," Proc. of ALT93, pp.237-250 (1993)
- [169] K. Yoshida, H. Motoda and N. Indurkha, "Unifying Learning Methods by Colored Digraphs," Proceedings of IJCAI-93 workshop on Machine Learning and Knowledge Acquisition, August, pp.253-269 (1993)
- [170] Hari N. Narayanan and H. Motoda, "Behavior Hypothesis from Schematic Diagrams: A Hybrid Approach", Proceedings of IJCAI-93 workshop on Principles on Hybrid Representation and Reasoning, August, pp.50-61 (1993)
- [171] M. Suwa and H. Motoda, "A perceptual criterion for visually controlling learning," Proceedings of IJCAI-93 workshop on Principles on Hybrid Representation and Reasoning, August, pp.72-83 (1993)
- [172] H. Motoda, K. Yoshida and M. Suwa, "Some Insights into the Nature of

- Learning from Machine Learning Studies”, Proceedings of the 1993 Korea/Japan Joint Conference on Expert Systems, pp.288-302 (1993)
- [173] M. Suwa and H. Motoda, “Learning Perceptually-chunked Macro-operators”, Handout of International Workshop on Machine Intelligence (1992), Revised paper in Machine Intelligence, Vol.13, pp.419-440, Oxford Univ. Press (1994)
- [174] A. Levy, Y. Iwasaki and H. Motoda, “Relevance Reasoning to Guide Compositional Modeling”, Presented at The Sixth International Workshop on Qualitative Reasoning about Physical Systems, Edinburgh, Scotland (1992)
- [175] A. Levy, Y. Iwasaki and H. Motoda, “Relevance Reasoning to Guide Compositional Modeling”, Working Note on Approximation and Abstraction of Computational Theories, AAAI-92 Workshop, San Jose (1992)
- [176] M.Suwa and H.Motoda, “Primitive Matching Approach: A Calculation Model for Finding Analogical Correspondences in Metaphorical Sentences –Preliminary Experimental Results,” Proc. of CSLI/IAP Japan Forum, Sep.10-11, Tokyo (1992)
- [177] A. Levy, Y. Iwasaki and H. Motoda, “Relevance Reasoning to Guide Compositional Modeling”, Proc. of the Second Pacific Rim International Conference on Artificial Intelligence (PRICAI92), pp.910-916, Korea, 1992
- [178] K. Yoshida and H. Motoda, “Automatic Knowledge Reformulation,” Proc. of the Second Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop (JKAW92), pp.279-293 (1992)
- [179] A. Levy, H. Motoda and Y. Iwasaki, “Acquiring (Ir)relevance Knowledge for Problem Solving”, Proc. of the Second Japanese Knowledge Acquisition for Knowledge-Based Systems Workshop (JKAW92), pp.263-278 (1992)
- [180] K. Yoshida and H. Motoda, “Knowledge Reformation and Concept Hierarchy Formation”, Symposium of Knowledge Reformation, IPSJ, SIG-AI, pp.79-88 (1991)
- [181] M. Suwa and H. Motoda, “Learning Metaphorical Relationships between Concepts based on Semantic Representation using Abstract Primitives”, Proc. of IJCAI Workshop on Non-literal Language: Metaphor, Metonymy, Idion, Speech Acts, Implicature, pp.123-131 (1991)
- [182] M.Suwa and H.Motoda, “Learning Abductive Strategies from an Example”, Invited, Proc. of the workshop on empirical machine learning, pp.36-43 (1991)
- [183] M. Suwa and H. Motoda, “The Use of Abstract Primitives in Representing the Meaning of “Verbs” for Understanding Metaphors”, Proc. of ALT91, pp.231-242 (1991)
- [184] M. Suwa and H. Motoda, “Acquiring Strategic Knowledge for Overcoming Imperfect Situations”, Proc. of AKAW91, pp.1-16 (1991)
- [185] M. Suwa and H. Motoda, “Learning Metaphorical Relationships Between Concepts based on Semantic Representation Using Abstract Primitives ”, Working Note of the AAAI-91 Workshop on “Towards Domain-independent

- Strategies for Abduction”, pp.72-79 (1991)
- [186] M. Suwa and H. Motoda, “Learning Abductive Strategies from an Example”, Working Note of the AAAI-91 Workshop on “Towards Domain-independent Strategies for Abduction” (1991)
- [187] A. Kawaguchi, H. Motoda and R. Mizoguchi, “An Architecture of Knowledge Acquisition by Interview based on Dynamic Analysis,” Proc. of JKAW-90, pp.81-96 (1990)
- [188] S. Kobayashi, T. Terano, H. Motoda and R. Mizoguchi, “Research Activities of Knowledge Acquisition and Learning in Japan ,” Invited, Proc. of JKAW-90, pp.113-133 (1990)
- [189] K. Yoshida and H. Motoda, “ Hierarchical Knowledge Representation based on Approximation,” Proc. of JKAW-90, pp.345-360 (1990)
- [190] K. Yoshida and H. Motoda, “Towards Automatic Generation of Hierarchical Knowledge Base,” Working Note of the AGAA-90 Workshop, pp.98-109 (1990)
- [191] H. Motoda, “Towards Deep Understanding in Problem Solving,” Invited, Proc. of The First International Conference on Supercomputing in Nuclear Applications (SNA’90), pp.569-574 (1990)
- [192] M. Suwa and H. Motoda, “Understanding Metaphors by Frustration- Based Learning Method,” Proc. of Fourth Knowledge Acquisition for Knowledge-Based Systems Workshop, pp.33\_1-33\_17 (1989)
- [193] A. Sakurai and H. Motoda, “Proving Definite Clauses without Explicit Use of Inductions,” Logic Programming ’88, Lecture Note in Artificial Intelligence 383, Springer Verlag, pp.11-26 (1989)
- [194] M. Suwa and H. Motoda, “Acquisition of Associative Knowledge by the Frustration-Based Learning Method in an Auxiliary-Line Problem,” Presented at the 3rd Knowledge Acquisition for Knowledge Based Systems Workshop (1988)
- [195] A. Sakurai and H. Motoda, “Proving Definite Clauses without Explicit Use of Induction ,” in Japanese, Proc of The Logic Programming Conference ’88, pp.29-38 (1988)
- [196] T. Kiguchi, H. Motoda, N. Yamada and K. Yoshida, “A Knowledge Based System for Plant Diagnosis,” Proc. of Int. Topical Mtg. of ANS on Computer Application for Nuclear Power Plant Operation and Control, Pasco, Washington, U.S.A. (Sep. 1985)
- [197] H. Motoda, N. Yamada and K. Yoshida, “A Knowledge Based System for Plant Diagnosis,” Proc. of FGCS-84, pp.582-588 (1984)
- [198] H. Motoda, N. Yamada and K. Yoshida, “Preliminary Study of Diagnosis through Knowledge about Systems Descriptions,” Tran. Am. Nucl. Sci., Vol.41, pp.294-295 (1984)
- [199] T. Kiguchi, K. Yoshida, H. Motoda and S. Kobayashi, “A Method of Plant Diagnosis by Knowledge Engineering Technique,” Proc. of Enlarged Halden

Programme Group Meeting, OECD Halden Reactor Project, pp.G-2/1-G-2/7, Loen, Norway (May 1983)

- [200] N. Yamada and H. Motoda, "A Diagnosis Method of Dynamic System Using the Knowledge on System Description," Proc. of Eight International Joint Conference on Artificial Intelligence (IJCAI-83), pp.225-229 (1983)
- [201] H. Motoda, Y. Bessho, T. Hayase and K. Kato, "Multi-Region Neutronics Model for Slow Transient Analysis of BWRs," Trans. Am. Nucl. Soc., Vol.38, pp.352-354 (1981) [pdf](#)
- [202] O. Yokomizo, I. Sumida and H. Motoda, "Development of a Time-Domain BWR Core Stability Analysis Program," Trans. Am. Nucl. Soc., Vol.34, pp.605-606 (1980) [pdf](#)
- [203] T. Kiguchi, T. Hayase, Y. Bessho, H. Motoda, S. Kobayashi and T. Hoshi, "Effective Use of Operating Data for Three-Dimensional BWR Core Simulator," Paper presented at NEACRP Specialists' Meeting on Calculation of 3-Dimensional Rating Distribution in Operating Reactors, Paris, France (Nov., 1979)
- [204] T. Enomoto, Y. Bessho, T. Kiguchi, H. Motoda, T. Hayase and H. Hiranuma, "Development of Startup Control Rod Programming Code System for BWRs," Trans. Am. Nucl. Soc., Vol.30, pp.648-648 (1978) [pdf](#)
- [205] T. Kiguchi, H. Motoda, S. Kobayashi, S. Uchikawa, M. Yokomi, H. Iida and H. Nakamura, "On-Line Core Performance Evaluation and Operating Guidance System for Boiling Water Reactors," Proc. of IAEA International Symposium on Nuclear Power Plant Control and Instrumentation, IAEA-SM-226/30, pp.1-23, Cannes, France (April, 1978) [pdf](#)
- [206] T. Kiguchi, H. Motoda and S. Kobayashi, "Feasibility Study of Core Management System by Data Communication for Boiling Water Reactors," Paper presented at IAEA/NPPCI Specialists' Meeting on Nuclear Power Plant Control Problems Associated with Load Following and Network Transients, Cadarache, France (Jan., 1977)
- [207] T. Kiguchi, T. Fukuzaki, Y. Nishizawa and H. Motoda, "Evaluation of On-Line Power Distribution Prediction Method by BWR Operating Data," Trans. Am. Nucl. Soc., Vol.27, pp.728-730 (1977) [pdf](#)
- [208] T. Hayase and H. Motoda, "BWR Control Rod Programming Using Heuristic and Mathematical Methods," Trans. Am. Nucl. Soc., Vol.27, pp.727-728 (1977) [pdf](#)
- [209] M. Serizawa, H. Motoda, S. Kobayashi, S. Yamada, H. Iida, M. Yokomi and H. Nakamura, "Experience with Computer Based Systems Applied to Boiling Water Reactor Power Plant," Proc. of Joint Automatic Control Conference, FP21-3:50, pp.360-366, San Francisco (June, 1977) [pdf](#)
- [210] Y. Nishizawa, T. Kiguchi and H. Motoda, "On-Line Core Performance Prediction of BWR," Trans. Am. Nucl. Soc., Vol.22, pp.242-243 (1975) [pdf](#)

- [211] T. Kiguchi and H. Motoda, “Development of Computer Program STROD for Startup Control Rod Programming of BWR,” Paper presented at IAEA Specialists’ Meeting on Spatial Control Problems, Nyköping, Sweden (Oct., 1974) [pdf](#)
- [212] T. Kiguchi and H. Motoda, “Development of Computer Program INROD for Intermediate Term Control Rod Programming of BWR,” Paper presented at IAEA Specialists’ Meeting on Spatial Control Problems, Nyköping, Sweden (Oct., 1974) [pdf](#)
- [213] H. Motoda, T. Kiguchi and T. Kawai, “Computer Program for Control Rod Programming of BWR,” *Trans. Am. Nucl. Soc.*, Vol.16, pp.171-172 (1973) [pdf](#)
- [214] H. Motoda, T. Kiguchi and T. Kawai, “Optimal Rod Programming and Loading Pattern in a Multiregion Reactor,” *Trans. Am. Nucl. Soc.*, Vol.15, pp.105-106 (1972) [pdf](#)
- [215] M. Senoh and H. Motoda, “Hybrid Simulation of Nuclear Reactor for Optimal Fuel Management,” *Proc. of AICA Symposium*, pp.G-3/1-G-3/5, Tokyo (April, 1971) [pdf](#)

### 3. Review articles in journals

- [1] K. Ohara, K. Saito, M. Kimura and H. Motoda, “Analysis of Influence over Social Network based on Information Diffusion,” (in Japanese) *J. of the Operations Research Society of Japan*, Vol.8, pp.15-21 (2015)
- [2] H. Liu and H. Motoda, “Less is More,” in *Computational Methods of Feature Selection*, Chapman & Hall/CRC, Data Mining and Knowledge Discovery Series, pp.3-17 (2008)
- [3] H. Motoda, H. T. bao, T. Washio, K. Yada, T. Yoshida and K. Ohara, “Active Mining for Structured data (in Japanese)”, *J. of JSAI*, Vol.20, No.2, pp.172-179 (2005) [pdf](#)
- [4] T. Washio and H. Motoda, “State of the Art of Graph-based Data Mining”, *SIGKDD Explorations*, Editorial: Multi-Relational Data Mining: The Current Frontiers , Editors: Saso Dzeroski and Luc De Raedt, *SIGKDD Exploration*, July 2003. Vol. 5, Iss. 1, pp.59-68
- [5] H. Motoda, “Active Mining - A Spiral Model of Knowledge Discovery from Data”, *Proc. of the 19th Fuzzy Symposium*, pp. 39-45 (2003)
- [6] T. Washio and H. Motoda, “State of the Art of Graph-based Data Mining”, *SIGKDD Explorations*, Editorial: Multi-Relational Data Mining: The Current Frontiers , Editors: Saso Dzeroski and Luc De Raedt, July 2003. Vol. 5, Iss. 1, pp.59-68 (2003)
- [7] H. Motoda, ”Comments on ”Historical Roadmap of Research on Genetic Algorithms” (and Their Answers),” *J. of JSAI*, Vol.18, No.6, pp.739-740 (2003) [pdf](#)
- [8] T. Okada and H. Motoda, “Association Rules and Its Vicinity”, *Operations*

- Research (in Japanese)”, *Operations Research*, Vol.47, No.9, pp.565-571 (2002) [pdf](#)
- [9] H. Motoda, M. Numao, T. Yamaguchi and S. Tsumoto, “The Active Mining Project (in Japanese)”, *J. of JSAI*, Vol.17, No.5, pp.615-621 (2002) [pdf](#)
- [10] H. Motoda, M. Numao, T. Onoda and H. Kawano, ”On the Special Issue: Active Mining,” *J. of JSAI*, Vol.17, No.5, pp.614 (2002) [pdf](#)
- [11] H. Motoda and T. Washio, “Perspective of Data Mining”, *Systems , Control and Information*, Vol.46, No.4, pp.169-176 (2002) [pdf](#)
- [12] H. Motoda, ”Inductive Logic Programming (K. Furukawa, T. Ozaki and K. Ueno), ” Book Review in Japanese, *J. of JSAI*, Vol.16, No.6 , pp.912 (2001) [pdf](#)
- [13] T. Washio and H. Motoda , “Challenge of Law Discovery by Computer,” *Applied Mathematical Science* , Vol.11, No.1, pp.59-62 (2001) [pdf](#)
- [14] H. Motoda, “Editor’s Indtoruction to Discovery Science (in Japanese),” Vol.15, No.4, pp.592-594 (2000) [pdf](#)
- [15] T. Washio and H. Motoda, “Evolution of Scientific Discovery by Computer, “ Bit, Special Issue, pp.207-216, May (2000)
- [16] H. Motoda and T. Washio, “Discovery of Laws, “*ICIE Transactions of Information and Systems*, Vol.E83-D, No.1, pp.44-51 (2000)
- [17] H. Motoda and S. Arikawa, “Special Feature on Discovery Science,” *New Generation Computing*, Vol.18, No.1, pp.13-16 (2000) [pdf](#)
- [18] H. Motoda, “Comments on “Fascinated by Explicit Understanding” and Their Answers (in Japanese),” *J. of JSAI*, Vol.14, No.5, pp.814-818 (1999) [pdf](#)
- [19] H. Motoda, “Fascinated by Explicit Understanding (in Japanese),” *J. of JSAI*, Vol.14, No.4, pp.615-625 (1999) [pdf](#)
- [20] T. Washio and H. Motoda “Theory of Scale Types, ” *Journal of JJSFSTS (Japan Society for Fuzzy Theory and Systems)*, Vol.10, No.3, pp.401-413 (1998) [pdf](#)
- [21] H. Motoda, ”Comments on AI Map – Form and Content – Invitation to Content-Oriented AI Research,” *J. of JSAI*, Vol.11, No.4, pp.555-557 (1996) [pdf](#)
- [22] H. Motoda and T. Washio, “Machine Learning and Data Mining, ” *Journal of JSAI*, Vol.12, No.4, pp.505-512 (1997) [pdf](#)
- [23] H. Motoda, ”Directions of Knowledge-Based Systems Research in the Era of Personalization and Globalization of Information Processing (in Japanese), ” *J. of JSAI*, Vo.11, No.3, pp.371-375 (1966) [pdf](#)
- [24] R. Mizoguchi and H. Motoda, “Expert Systems Research in Japan,” *Invited, IEEE Expert*, Vol.10, No.4, August, pp.14-23 (1995)
- [25] H. Motoda, “Book Review: Second Generation Expert System, Edited by

- Jean-Marc David, Jean-Paul Krivine and Raid Simmons,” Invited, IEEE Expert, Vol.9, No.2, April, pp.66-76 (1994)
- [26] H. Motoda, “Approach to Knowledge Reuse – Research Activities in KADS related projects in Europe –,” Invited, in Japanese, J. of JSAI, Vol.9, No.1, pp.10-16 (1994) [pdf](#)
- [27] H. Motoda, R. Mizoguchi and T. Nishida, ”Knowledge Sharing and Resuse,” J. of JSAI, Vol.9, No.1, pp.2 (1994) [pdf](#)
- [28] H. Motoda, R. Mizoguchi, J. Boose and B. Gaines, “Knowledge Acquisition for Knowledge-based Systems,” Invited, IEEE Expert, Vol. 6, No.4, pp.53-64 (1991)
- [29] H. Motoda and Kenichi Yoshida, “Application of Qualitative Reasoning to Knowledge Acquisition,” in Japanese, Invited, J. of IPSJ., Vol.32, No.2, pp.153-162 (1991) [pdf](#)
- [30] H. Motoda, “Current Status of Expert System Development and Related Technologies in JAPAN,” Invited, IEEE Expert, Vol.5, No.4, pp.3-11, August (1990)
- [31] H. Motoda and K. Yoshida, “Qualitative Reasoning as a Basis of Deep Reasoning ,” in Japanese, Invited, J. of JSAI, Vol.4, No.5, pp.538-546 (1989) [pdf](#)
- [32] H. Motoda, ”Information Processing by Neural Network – Introduction to Connectionism or Towards Soft Symbols (H. Asoh),” Book Review in Japanese, J. of JSAI, Vol.4, No.4 , pp.470-471 (1989) [pdf](#)
- [33] H. Motoda, “Hurdle for Knowledge Information Processing – Expert System,” in Japanese, Invited, J. of IEICE, Vol.72, No.3, pp.265-271 (1989)
- [34] H. Motoda, “New technical trends of Machine Learning and Knowledge Acquisition,” in Japanese, Invited, J. of JSAI, Vol.3, No.6, pp.691-694 (1988) [pdf](#)
- [35] H. Motoda, “On the Thresholds of Knowledge (D. B. Lenat and E. A. Feigenbaum), “ Literature review in Japanese, J. of JSAI, Vol.3, No.1, pp.121-122 (1988) [pdf](#)
- [36] M. Ishizuka, A. Koyama, S. Takagi, J. Tujii, H. Motoda, and H. Ueno, “Problems with Expert Systems,” in Japanese, Invited, Information Processing, Vol.28, No.2, pp.218-236 (1987) [pdf](#)
- [37] H. Motoda, T. Ogino, K. Sekimizu, Y. Shinohara and M. Kitamura, “ Knowledge Engineering and Nuclear Technology,” in Japanese, Invited, Journal of Atomic Energy Society of Japan, Vol.28, No.9, pp.2-13 (1986) [pdf](#)
- [38] H. Motoda, “Application of Knowledge Information Processing to Plant Control,” in Japanese, Invited, Computol, Vol.10, pp.147-153 (1985)
- [39] H. Motoda, “Problem Solving by Knowledge,” in Japanese, Invited, Journal of Atomic Energy Society of Japan, Vol.26, No.4, pp.271-276 (1984) [pdf](#)
- [40] T. Kiguchi and H. Motoda, “Application of Knowledge Engineering to Nuclear

System,” in Japanese, Invited, Energy Review, Vol.1, pp.7-11 (1894)

- [41] Y. Kobayashi and H. Motoda, “Teknowledge that sells Knowledge Engineering”, in Japanese, Invited, J. of Mechanical Society of Japan, Vol.86, No.780, pp.1300-1301 (1983) [pdf](#)
- [42] H. Motoda, T. Kiguchi and S. Kobayashi, “Application of Knowledge Engineering to Nuclear System,” in Japanese, Invited, Systems and Control, Vol.27, No.7, pp.448-454 (1983)

#### 4. Books

- [1] T. Cao, E. Lim, Z. Zhou, T. Bao, D. Cheung and H. Motoda, “Advanced in Knowledge Discovery and Data Mining (Proceedings of PAKDD2015, Part 1), LNAI 9077, Springer (2015)
- [2] T. Cao, E. Lim, Z. Zhou, T. Bao, D. Cheung and H. Motoda, “Advanced in Knowledge Discovery and Data Mining (Proceedings of PAKDD2015, Part 2), LNAI 9078, Springer (2015)
- [3] M. Kryszkiewicz, C. Cornelis, D. Ciucci, J. Medina-Moreno, H. Motoda and Z. W. Ras, “Rough Sets and Intelligent Systems Paradidgms - Proceedings of the Second International Conference, RSEISP 2014”, held as part of JRS2014, LNAI 8537, Springer (2014)
- [4] L. Cao, H. Motoda, J. Srivastava, E. Lim and I. King (Eds.), “Behavior and Social Computing, (Proceedings of the International Workshop on Behavioral and Social Informatics, BSI2013 (Gold Coast) and the International Workshop on Behavior and Social Infromatics and Computing, BSIC2013 (Beijing)”, Lecture Notes in Computer Science 8178, Springer (2013)
- [5] H. Motoda, Z. Wu, L. Cao, O. Zaiane, M. Yao and W. Wang (Eds.), “Advanced Data Mining and Applications, (Proceedings of ADMA 2013 - Part 1)”, Lecture Notes in Artificial Intelligence 8346, Springer (2013)
- [6] H. Motoda, Z. Wu, L. Cao, O. Zaiane, M. Yao and W. Wang (Eds.), “Advanced Data Mining and Applications, (Proceedings of ADMA 2013 - Part 2)”, Lecture Notes in Artificial Intelligence 8347, Springer (2013)
- [7] J. Pei, V. S. Tseng, L. Cao, H. Motoda and G. Xu (Eds.), “Advances in Knowledge Discovery and Data Mining, (Proceedings of PAKDD 2013 - Part 1)”, Lecture Notes in Artificial Intelligence 7818, Springer (2013)
- [8] J. Pei, V. S. Tseng, L. Cao, H. Motoda and G. Xu (Eds.), “Advances in Knowledge Discovery and Data Mining, (Proceedings of PAKDD 2013 - Part 2)”, Lecture Notes in Artificial Intelligence 7819, Springer (2013)
- [9] H. Motoda, T. Kurita, T. Higuchi, Y. Matsumoto and N. Murata, “Pattern Recognition and Machine Learning, Vol. 1 and 2”, Springer Japan (2007), Translation of the C.M. Bishop’s Pattern Recognition and Machine Learning, Springer (2006)
- [10] H. Liu and H. Motoda (Eds), “Computational Methods of Feature Selection,” Chapman & Hall/CRC Data Mining and Knowledge Discovery Series (2008)



- [11] H. Motoda, S. Tsumoto, Yamaguchi, M. Numao, “Fundamentals of Data Mining” (in Japanese), Ohmsha (2007)
- [12] A. Hoffmann, H. Motoda and T. Scheffer (Eds.), “Discovery Science”, Lecture Notes in Artificial Intelligence 3735, Springer (2005)
- [13] S. Tsumoto, T. Yamaguchi, M. Numao and H. Motoda, “Active Mining”, Lecture Notes in Artificial Intelligence 3430, Springer (2005)
- [14] H. Motoda (ed.), “Active Mining - New Directions of Data Mining -”, Frontiers in Artificial Intelligence and Applications, IOS Press (2002)
- [15] A. Suzuki and H. Motoda, “Design of Systems, Management and Evaluation”, Iwanami Modern Engineering Series (2001)
- [16] H. Liu and H. Motoda, “Instance Selection and Construction for Data Mining (Eds.)”, Kluwer Academic Publishers (2001)
- [17] P. Compton, A. Hoffmann, H. Motoda and T. Yamaguchi, “Proc. of the 6th Pacific Rim Knowledge Acquisition Workshop (PKAW2000) (2000)
- [18] S. Arikawa and H. Motoda (Eds), “Discovery Science”, Lecture Notes in Artificial Intelligence 1532, Springer (1998)
- [19] H. Motoda, R. Mizoguchi, P. Compton and H. Liu (Eds), “Pacific Rim Knowledge Acquisition Workshop (PKAW98)” (1998)
- [20] H. Lee and H. Motoda, “PRICAI98: Topics in Artificial Intelligence”, Lecture Notes in Artificial Intelligence 1531, Springer (1998)
- [21] H. Liu and H. Motoda, “Feature Selection for Knowledge Discovery and Data Mining”, Kluwer Academic Publishers (1998)
- [22] H. Liu and H. Motoda, “Feature Extraction, Construction and Selection -Data Mining Perspective -, (Eds.)”, Kluwer Academic Publishers (1998)
- [23] H. Lu, H. Motoda and H. Liu (Eds.), “KDD: Techniques and Applications”, World Scientific (1997)

## 5. Chapters in books

- [1] H. Motoda and K. Ohara, “Apriori”, X. Wu and V. Kumar (Eds.), The Top Ten Algorithms in Data Mining, Chapman & Hall/CRC, pp.61-92 (2009) [pdf](#)
- [2] K. Fukata, T. Washio, K. Yada and H. Motoda, “A Method to Search ARX Model Orders and Its Application to Sales Dynamics Analysis,” in Ohsama (Ed.) Data Mining for Design and Marketing, Taylor and Francis (2008) [pdf](#)
- [3] T. Washio and H. Motoda, “Communicability Criteria of Law Equation discovery”, S. Džeroski and L. Todorovski (Eds.), Computational Discovery of Scientific Knowledge, pp.98-119, LNAI 4660, Springer (2007) [pdf](#)
- [4] K. Ohara, P.C. Nguyen, A. Mogi, H. Motoda and T. Washio, “Constructing Decision Tree Based on Chunkingless Graph-based Induction”, Mining Graph Data, L. B. Holder and D. J. Cook (eds), Chap.8, pp.203-226, Wiley Interscience (2006)

- [5] A. Inokuchi, T. Washio and H. Motoda, “A General Framework for Mining Frequent Subgraphs from Labeled Graphs, T. Washio, L. De Raedt and J. N. Knok (Eds.), *Advances in Mining Graphs, Trees and Sequences*, IOS Press, pp. 53-82 (2005).
  - [6] W. Geamsakul, T. Yoshida, K. Ohara, H. Motoda, H. Yokoi and K. Takabayashi, “Constructing a Decision Tree for Graph-Structured Data and its Applications, T. Washio, L. De Raedt and J. N. Knok (Eds.), *Advances in Mining Graphs, Trees and Sequences*, IOS Press. to appear (2005).
  - [7] T. Wada, T. Yoshida, H. Motoda and T. Washio, “Acquiring Knowledge from Both Human Experts and Accumulated Data in an Unstable Environment, *Active Mining: New Directions of Data Mining*, H. Motoda (Ed.), pp.217-228, IOS Press (2002)
  - [8] K. Fujiwara, T. Yoshida, H. Motoda and T. Washio, “Case Generation Method for Constructing an RDR Knowledge Base, *Active Mining: New Directions of Data Mining*, H. Motoda (Ed.), pp.205-215, IOS Press (2002)
  - [9] T. Matsuda, T. Yoshida, H. Motoda and T. Washio, “Knowledge Discovery from Structured Data by Beam-wise Graph-Based Induction, *Active Mining: New Directions of Data Mining*, H. Motoda (Ed.), pp.115-125, IOS Press (2002)
  - [10] H. Motoda, “Qualitative Physics,” in Japanese, Chapter 21 in *The Handbook of Artificial Intelligence* (Translation from *The Handbook of Artificial Intelligence*, Edited by A. Barr, P. R. Cohen and Ed. A. Feigenbaum, Addison Wesley, 1989), Kyoritsu Publishing Co., p. 387-484 (1993)
  - [11] H. Motoda, “Causal Understanding (in Japanese),” Chapter 3 in *Handbook of Cognitive Science*, Kyoritsu Publishing Co., pp.118-127 (1991)
  - [12] H. Motoda, “Plant Diagnosis (in English),” *AI Technology* (Chapter 6), Ed. by F. Mizoguchi, Ohmsha, pp.109-147 (1990)
  - [13] H. Motoda, “Towards Understanding Physical Systems by Qualitative Reasoning,” in Japanese, Chapter 9 in *Qualitative Reasoning*, Kyoritsu Publishing Co., pp.267-287 (1989)
  - [14] H. Motoda, “Operator Guidance of Nuclear Power Plant,” in Japanese, 6.4.4 in *AI Handbook*, pp.334-356 (1987)
  - [15] H. Motoda, “Plant Diagnosis,” in Japanese, *AI Technology* (Chapter 6), Ed. by F. Mizoguchi, Ohmsha, pp.91-117 (1986)
  - [16] H. Tanaka, S. Muto, Y. Kobayashi, Y. Ueda and H. Motoda, “Application of KE technology to Layout Planning of Transformer Substation”, in Japanese, in III-17 in *Expert Systems (Newest tools and Applications)*, Nikkan Kogyo Gijyutu Center (1986)
  - [17] H. Motoda, “Core Fuel management,” in *Computer Control of Nuclear Reactors* (in Japanese), Ed. by N. Suda, Tokyo Denki Univ. Press (1971)
6. Others (Archive, Panel, Conference report, etc.)

- [1] K. Saito, M. Kimura, K. Ohara, and H. Motoda, “ Learning Asynchronous-Time Information Diffusion Models and its Application to Behavioral Data Analysis over Social Networks,” arXiv: 1204.4528 (2012) [pdf](#)
- [2] H. Motoda, et.al., ”Report on the 15th International Conference on Machine Learning and the 8th International Conference on Inductive Logic Programming, ” J. of JSAI, Vol. 13, No.6, pp.1013-1015 (1998) [pdf](#)
- [3] H. Motoda, ”Report on the 8th International Workshop on Knowledge Acquisition (KAW’94),” Conference report, J. of JSAI, Vol.9, No.3, pp.458-460 (1994) [pdf](#)
- [4] H. Motoda, ”Report on International Workshop on Machine Intelligence 1993,” Conference report, J. of JSAI, Vol.9, No.2, pp.318-320 (1994) [pdf](#)
- [5] H. Motoda, R. Mizoguchi and T. Nishida, ”Report on Knowledge Sharing and Reuse Workshop,” Conference report, J. of JSAI, Vol.8, No.5, pp.666-671 (1993) [pdf](#)
- [6] H. Motoda, ”Report on JKAW-92,” Conference report, J. of JSAI, Vol.8, No.4, pp.520-522 (1993) [pdf](#)
- [7] H. Motoda, ”A dream that is easy to have but hard to realize,” Commentary, J. of JSAI, Vol.7, No.2, pp.185 (1992) [pdf](#)
- [8] H. Motoda, ”Report on JKAW-90,” Conference report, J. of JSAI, Vol.6, No.4, pp.603-606 (1991) [pdf](#)
- [9] H. Motoda, et.al., ”AI-Neuro- Fuzzy,” Panel, J. of JSAI, Vol.6, No.4, pp.482-500 (1991) [pdf](#)
- [10] H. Motoda, ”Motoda Laboratory at Advanced Research Laboratory, Hitachi, Ltd.,” J. of JSAI, Vol.6, No.2, pp.281-281 (1991) [pdf](#)
- [11] H. Motoda, et.al., ”Report on AAAI-90,” Conference report, J. of JSAI, Vol.6, No.1, pp.131-137 (1991) [pdf](#)
- [12] H. Motoda, et.al., ”Report on IJCAI-89,” Conference report, J. of JSAI, Vol.5, No.1, pp.115-122 (1989) [pdf](#)