

# Arbee L.P. Chen

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## EDUCATION

- Ph.D. in Computer Engineering, Department of Electrical Engineering, University of Southern California, USA, 1984
- B.S. in Computer Science, Department of Computer Science, National Chiao-Tung University, Taiwan, 1977

## PROFESSIONAL EXPERIENCES

- Chair Professor, Department of Computer Science and Information Engineering, Asia University, August 2015 – present
- Vice President, Asia University, August 2015 – present
- Dean, College of Information and Electrical Engineering, Asia University, August 2015 – July 2016
- University Chair Professor in Computer Science, National Chengchi University, August 2004 – July 2015
- Dean, College of Science, National Chengchi University, August 2006 – July 2012
- Director, Center for Teaching and Learning Development, National Chengchi University, March 2008 – July 2008
- Professor (Joint Appointment), Department of Computer Science, National Tsing Hua University, Taiwan, August 2004 – present
- Researcher (Joint Appointment), Research Center for Information Technology Innovation, Academia Sinica, Taiwan, August 2012 - present
- Professor, Department of Computer Science, National Tsing Hua University, August 1991 – July 2004
- Chairman, Department of Computer Science and Information Engineering, National Dong Hwa University, Taiwan, August 2001 – July 2004
- Director, Computer and Communications Center, National Tsing Hua University, 1994 – 1996
- Visiting Specialist, National Science Council (at Department of Computer Science, National Tsing Hua University), 1990
- Member of Technical Staff, Bell Communications Research, USA, 1986 – 1990
- Adjunct Associate Professor, Electrical and Computer Engineering,

Polytechnic University, New York, USA, 1988 – 1990

Research Scientist, Unisys Inc., USA, 1984 – 1986

## **VISITING ACADEMICS**

Visiting Scholar at Department of Biomedical Informatics, Columbia University (hosted by Prof. Noemie Elhadad), USA, June – July, 2015

Visiting Scholar at Department of Computing, The Hong Kong Polytechnic University (hosted by Prof. Eric Lo), Hong Kong, May - June, 2013

Visiting Scholar at Department of Computer Science and Engineering, Hong Kong University of Science and Technology (hosted by Prof. Lei Chen), Hong Kong, January - February, 2013

Visiting Scholar at Department of Computer Science and Engineering, Pennsylvania State University (hosted by Prof. Wang-Chien Lee), USA, August, 2011

Visiting Scholar at Harvard Graduate School of Education (hosted by Prof. Tina Grotzer), USA, February, 2010 (on Science Education and Learning Technologies)

Visiting Scholar at Department of Computer Science, The University of Hong Kong (hosted by Prof. David Cheung), Hong Kong, August, 2009

Visiting Scholar at Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong (hosted by Prof. Jeffrey Yu), Hong Kong, July, 2009

Visiting Scholar at Department of Computer Science, Boston University (hosted by Prof. George Kollios), USA, January - February, 2009

Visiting Scholar at Harvard Graduate School of Education (hosted by Prof. Christopher Dede), USA, January - February, 2009 (on Science Education and Learning Technologies)

Invited Participant at Faculty Summit of Microsoft Research Asia, Beijing, PRC, October, 2006

Visiting Scholar at King's College London, University of London (hosted by Prof. Costas Iliopoulos), UK, November 2005 (for a two-year research project "Algorithms for Pattern Analysis in Music Databases" under National Science Council Taiwan-UK Joint Project Grant)

Visiting Scholar at Center for Computer Assisted Research in the Humanities, Stanford University (hosted by Prof. Eleanor Selfridge-Field), USA, July 2005

Visiting Scholar at Computer Science Department, Stanford University (hosted by Prof. Hector Garcia-Molina), USA, January 2004

Visiting Scholar at Center for Computer Assisted Research in the Humanities,

Stanford University (hosted by Prof. Eleanor Selfridge-Field), USA, February 2003 (lectured in Music 253/CS275A - "Musical Information: An Introduction")

- Senior Visiting Scholar at Tsinghua University (hosted by Prof. Lizhu Zhou), Beijing, May 1999 (delivered a short course on "Multimedia Database Systems" at Department of Computer Science and Technology, Tsinghua University; also gave talks at Beijing University, Chinese Academy of Sciences, and Renmin University of China)
- Visiting Scholar at Kyoto University (hosted by Prof. Yahiko Kambayashi), Japan, January - February, 1999 (as a foreign examiner for Japan's National Scientific Research Project on Priority Areas (A): Research and Development of Advanced Database Systems for Integration of Media and User Environments)

## **RESEARCH INTERESTS**

- Big Data Analytics, Top-k Queries, Data Mining, Data Stream Processing and Analysis, Multimedia Information Systems

## **PH.D. THESIS SUPERVISION**

- Lin, Chen-Yi, "Efficient Algorithms for Determining k-Most Demanding/Favorite Products," July 2012, National Tsing Hua University
- Fan, Yao-Chung, "Efficient and Robust Schemes for Accuracy-Guaranteed Sensor Data Aggregation," October 2010, National Tsing Hua University
- Wang, En-Tzu, "Mining Frequent Itemsets over Distributed Data Streams," August 2010, National Tsing Hua University
- Cho, Chung-Wen, "Mining and Retrieving Various Sequential Patterns in Sequence Databases," November 2008, National Tsing Hua University
- Chiu, Ding-Ying, "On Frequent Sequence Mining and Online Classification Techniques," October 2008, National Tsing Hua University
- Chen, Hung-Chen, "Techniques of Music Analysis, Recommendation, and Retrieval for Music Services," June 2008, National Tsing Hua University
- Liu, Ning-Han, "Similarity Search in Polyphonic Music Databases," July 2005, National Tsing Hua University
- Lin, Chia-Han, "A Study on Video Modeling, Indexing and Query Processing," May 2005, National Tsing Hua University
- Hsu, Jia-Lien, "Content-based Music Information Retrieval and Analysis,"

September 2001, National Tsing Hua University

- Wu, Yi-Hung, "The Analysis, Indexing and Retrieval of Web Data," May 2001, National Tsing Hua University

- Lee, Guanling, "Location Management and Efficient Query Processing in Mobile Information Systems," May 2001, National Tsing Hua University

- Lo, Shou-Chih, "Data Broadcasting in the Mobile Computing Environment," May 2000, National Tsing Hua University

- Kuo, Tony C.T., "Indexing, Retrieval, and Query Processing for Video Databases," July 1998, National Tsing Hua University

- Liu, Chih-Chin, "Content-Based Video and Music Data Retrieval," June 1998, National Tsing Hua University

- Yen, Show-Jane, "Efficient Knowledge Discovery from Large Databases," June 1997, National Tsing Hua University

- Koh, Jia-Ling, "Integration and Query Processing for Object and Multimedia Databases," June 1997, National Tsing Hua University

- Chang, Chih-Shyang, "The Inference, Aggregation, Refinement and Applications of Uncertain Data," June 1996, National Tsing Hua University

- Tsai, Pauray S.M., "Interoperability and Query Optimization in Multi-database Systems," January 1996, National Tsing Hua University

- Chiu, Jui-Shang, "PV-Table - A Representation System for Exclusive Disjunctive Data," January 1995, National Tsing Hua University

- Tseng, Frank S.C., "A Study on Partial Values with Applications to Query Processing in Heterogeneous Database Systems," November 1992, National Chiao-Tung University

## **SERVICES IN PROFESSIONAL SOCIETIES**

### **- Conference Organizing Chair/Member**

- Advisory Committee, IEEE International Conference on Multimedia Big Data, Taiwan, 2016.
- Steering Committee, International Conference on Social Informatics, Taiwan, 2015.
- Steering Committee, International Conference on Big Data, Taiwan, 2015.
- Advisory Committee, International Conference on Technologies and Applications of Artificial Intelligence, Taiwan, 2015.
- Tutorial Chair, International Conference on Database Systems for Advanced Applications, Vietnam, 2015
- Workshop Chair, Workshop on Database, Data Mining, Big Data, and

Information Retrieval, International Computer Symposium, Taiwan, 2014

- Conference Chair, Pacific-Asia Conference on Knowledge Discovery and Data Mining, Taiwan, 2014
- Steering Committee, International Symposium on Music Information Retrieval, Taiwan, 2014
- Advisory Committee, International Conference on Technologies and Applications of Artificial Intelligence, Taiwan, 2013
- Program Vice Chair, IEEE International Conference on Data Mining, Belgium, 2012
- Symposium Chair, International Symposium on Foundations and Frontiers of Data Mining, PRC, 2012
- Workshop Chair, Workshop on Database, Data Mining and Information Retrieval, International Computer Symposium, Taiwan, 2012
- Panel Chair, International Conference on Mobile Data Management, Taiwan, 2009
- Program Chair, IEEE International Conference on Data Engineering, Mexico, 2008
- Conference Chair, International Conference on Digital Archive Technologies, Taiwan, 2005
- Conference Chair, International Computer Symposium, Taiwan, 2002
- Conference Chair, Pacific-Asia Conference on Knowledge Discovery and Data Mining, Taiwan, 2002
- General Chair, Workshop on Software Engineering and Database Systems, International Computer Symposium, Taiwan, 2000
- Program Chair, Pacific-Asia Conference on Knowledge Discovery and Data Mining, Japan, 2000
- Conference Organizer and Program Chair, International Conference on Database Systems for Advanced Applications, Taiwan, 1999
- Vice Program Chair, IEEE International Conference on Tools with Artificial Intelligence, USA, 1999
- Program Chair, International Conference on Cooperative Information Systems, USA, 1997
- Conference Organizer and Program Chair, IEEE International Conference on Data Engineering, Taiwan, 1995

**- Program Committee Member**

- 2016 International Conference on Very Large Databases (India)

- 2016 IEEE International Conference on Data Mining (Spain)
- 2016 IEEE International Congress on Big Data (USA)
- 2015 IEEE International Conference on Data Mining (USA)
- 2015 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Vietnam, Senior Program Committee Member)
- 2014 IEEE International Conference on Data Mining (PRC)
- 2013 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Australia, Senior Program Committee Member)
- 2012 IEEE International Conference on Data Mining (Belgium)
- 2012 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Malaysia)
- 2011 IEEE International Conference on Data Mining (Canada)
- 2010 International Conference on Very Large Databases (Singapore)
- 2010 IEEE International Conference on Data Mining (Australia)
- 2010 Pacific-Asia Conference on Knowledge Discovery and Data Mining (India)
- 2009 IEEE International Conference on Data Mining (USA)
- 2009 ACM International Conference on Advances in Geographic Information Systems (USA)
- 2009 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Thailand)
- 2008 International Conference on Very Large Databases (New Zealand)
- 2008 Ph.D. Workshop, International Conference on Extending Database Technology (France)
- 2008 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Japan)
- 2007 International Conference on Very Large Databases (Austria)
- 2007 International Conference on Data Warehousing and Knowledge Discovery (Germany)
- 2007 International Conference on Web Information Systems Engineering (France)
- 2007 Pacific-Asia Conference on Knowledge Discovery and Data Mining (China)
- 2007 International Conference on Database Systems for Advanced Applications (Thailand)
- 2007 International Workshop on Combinatorial Algorithms (Australia)
- 2006 ICDM Workshop on Foundation of Data Mining and Novel Techniques in High Dimensional Structural and Unstructured Data

- 2006 IEEE International Conference on Tools with Artificial Intelligence (USA)
- 2006 IEEE International Conference on Data Mining (Hong Kong)
- 2006 IEEE International Workshop on Multimedia Databases and Data Management/IEEE International Conference on Data Engineering (USA)
- 2006 International Conference on Data Warehousing and Knowledge Discovery (Poland)
- 2006 International Conference on Web-Age Information Management (Hong Kong)
- 2006 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Singapore)
- 2006 International Conference on Database Systems for Advanced Applications (Singapore)
- 2006 International Conference on Multimedia Content Analysis, Management, and Retrieval (USA)
- 2005 International Conference on Very Large Databases (Norway)
- 2005 International Conference on Web Information Systems (USA)
- 2005 International Conference on Data Warehousing and Knowledge Discovery (Denmark)
- 2005 International Conference on Music Information Retrieval (UK)
- 2005 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Vietnam)
- 2005 International Conference on Database Systems for Advanced Applications (China)
- 2005 Workshop on Foundations of Data Mining, IEEE International Conference on Data Mining (USA)
- 2005 International Workshop on Managing Data for Emerging Multimedia Applications (Japan)
- 2005 IASTED International Conference on Databases and Applications (Austria)
- 2005 International Conference on Web-based Learning (Hong Kong)
- 2004 International Conference on Very Large Databases (Canada)
- 2004 Foundation of Data Mining Workshop in ICDM04 (UK)
- 2004 ACM Workshop on Multimedia Databases (USA)
- 2004 International Conference on Web Information Systems Engineering (Australia)
- 2004 IEEE International Symposium on Multimedia Software Engineering (USA)

- 2004 International Conference on Data Warehousing and Knowledge Discovery (Spain)
- 2004 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Australia)
- 2004 Asia Pacific Web Conference (China)
- 2004 Electronic Imaging and Multimedia Technology Conference at Photonics Asia (China)
- 2004 International Conference on Database Systems for Advanced Applications (Korea)
- 2004 Mobile Computing Workshop (Taiwan)
- 2004 Workshop on Object-Oriented Technology and Applications (Taiwan)
- 2003 ACM Workshop on Multimedia Databases (USA)
- 2003 Foundation and New Directions of Data Mining Workshop at IEEE International Conference on Data Mining (USA)
- 2003 International Conference on Information and Knowledge Sharing (USA)
- 2003 International Symposium on Multimedia Software Engineering (Taiwan)
- 2003 IEEE International Conference on Multimedia & Expo (USA)
- 2003 IEEE International Conference on Data Engineering (India)
- 2003 International Conference on Data Warehousing and Knowledge Discover (Czech Republic)
- 2003 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Korea)
- 2003 International Conference on Database Systems for Advanced Applications (Japan)
- 2002 IEEE International Conference of Data Mining (Japan)
- 2002 IEEE International Conference of Data Mining/Workshop on Toward the Foundation of Data Mining (Japan)
- 2002 International Workshop on Multimedia Information Systems (USA)
- 2002 International Conference on Web-based Learning (Hong Kong)
- 2002 International Conference on Very Large Data Bases (Hong Kong)
- 2002 First International Conference on Ontologies, Data Bases, and Applications of Semantics for Large Scale Information Systems (ODBASE'02) (USA)
- 2002 International Conference On Web Information Systems Engineering (Singapore)



- 2002 Electronic Imaging and Multimedia Technology Conference of SPIE Photonics Asia (China)
- 2002 International Symposium on Multimedia Software Engineering (USA)
- 2002 International Conference on Data Warehousing and Knowledge Discovery (France)
- 2002 IEEE International Conference on Tools with Artificial Intelligence (USA)
- 2001 International Conference on Web Information Systems Engineering (Japan)
- 2001 International Conference on Data Warehousing and Knowledge Discovery (Germany)
- 2001 ACM International Conference on Information and Knowledge Management (USA)
- 2001 IEEE International Conference on Data Mining (USA)
- 2001 International Conference on Web-Age Information Management (China)
- 2001 International Conference on Conceptual Modeling (Japan)
- 2001 IEEE International Workshop on Research Issues on Data Engineering (Germany)
- 2000 ADBIS-DASFAA Symposium on Advances in Databases and Information Systems (Czech Republic)
- 2000 International Conference on Web-Age Information Management (China)
- 2000 International Conference on Very Large Data Bases (Egypt)
- 2000 IEEE International Conference on Multimedia and Expo (USA)
- 2000 International Symposium on Multimedia Software Engineering (Taiwan)
- 2000 International Conference on Web Information System Engineering (Hong Kong)
- 2000 International Database Symposium on Mobile, XML and Post-relational Databases (Hong Kong)
- 2000 International Conference on Data Warehousing and Knowledge Discovery (UK)
- 2000 National Conference of China on Database Systems (China)
- 2000 IEEE ICDCS International Workshop of Knowledge Discovery and Data Mining in the World-Wide Web (Taiwan)
- 2000 ACM International Conference on Information and Knowledge

## Management (USA)

- 1999 International Conference on Data Warehousing and Knowledge Discovery (Italy)
- 1999 International Conference on Mobile Data Access (Hong Kong)
- 1999 International Symposium on Cooperative Databases Systems for Advanced Applications (Australia)
- 1999 IFCIS Conference on Cooperative Information Systems (UK)
- 1999 International Symposium on Database, Web and Cooperative Systems (Germany)
- 1999 ACM International Conference on Information and Knowledge Management (USA)
- 1999 ACM International Workshop on Data Warehousing and OLAP (USA)
- 1999 Workshop on Software Engineering and Database Systems, ICS'99 (Taiwan)
- 1999 IEEE Knowledge and Data Engineering Exchange Workshop (U.S.A.)
- 1999 International Symposium on Multimedia Information Processing (Taiwan)
- 1999 International Symposium on Database Applications in Non-Traditional Environments (JAPAN)
- 1998 International Conference on Very Large Data Bases (USA)
- 1998 IEEE International Conference on Data Engineering (USA)
- 1998 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Australia)
- 1998 International Conference on Conceptual Modeling (Singapore)
- 1998 International Conference on Cooperative Information Systems (USA)
- 1998 ACM International Conference on Information and Knowledge Management (USA)
- 1998 Euro-Par Conference (UK)
- 1998 Pacific Rim International Conference on Artificial Intelligence: Workshop on Data Mining and Machine Learning (Singapore)
- 1998 Workshop on Mobile Data Access, ER'98 (Singapore)
- 1998 Workshop on Data Warehousing and Data Mining, ER'98 (Singapore)
- 1998 International Database Conference (Hong Kong)
- 1998 IEEE Knowledge and Data Engineering Exchange Workshop

(Taiwan)

- 1998 International Conference on Parallel and Distributed Systems (Taiwan)
- 1998 Taiwan Area Network Conference (Taiwan)
- 1998 SPIE Photonics China: Electronic Imaging and Multimedia Systems Conference (China)
- 1998 Pacific Workshop on Distributed Multimedia Systems (Taiwan)
- 1998 Mobile Computing Workshop (Taiwan)
- 1998 International Symposium on Internet Technology (Taiwan)
- 1998 Workshop on Computer Networks, Multimedia, and Internet, ICS'98 (Taiwan)
- 1998 Workshop on Software Engineering and Database Systems, ICS'98 (Taiwan)
- 1997 International Conference on Very Large Data Bases (Greece)
- 1997 International Conference on Deductive and Object-Oriented Databases (Australia)
- 1997 International Conference on Database Systems for Advanced Applications (Australia)
- 1997 Pacific-Asia Conference on Knowledge Discovery and Data Mining (Singapore)
- 1997 Symposium on Computer and Communication Technologies (Taiwan)
- 1997 Multimedia Technology and Applications Symposium (Taiwan)
- 1997 International Database Workshop (Hong Kong)
- 1997 International Conference on Parallel and Distributed Systems (Korea)
- 1997 Real-Time and Media Systems Workshop (TAIWAN)
- 1997 Mobile Computing Workshop (Taiwan)
- 1997 International Symposium on Multimedia Information Processing (Taiwan)
- 1997 Internet Information Society Workshop (Taiwan)
- 1996 International Conference on Very Large Data Bases (India)
- 1996 ACM International Conference on Information and Knowledge Management (USA)
- 1996 International Symposium on Cooperative Database Systems for Advanced Applications (Japan)
- 1996 Asia-Pacific Software Engineering Conference (Korea)
- 1996 International Conference on Distributed Systems, Software

Engineering, and Database Systems (Taiwan)

- 1996 Object-Oriented Technology and Applications Workshop (Taiwan)
- 1995 International Conference on Database Systems for Advanced Applications (Singapore)
- 1995 International Workshop on Real-Time Computing Systems and Applications (Japan)
- 1995 International Conference on Management of Data (India)
- 1995 Object-Oriented Technology and Applications Workshop (Taiwan)
- 1994 IEEE International Conference on Data Engineering (USA)
- 1994 International Conference on Data and Knowledge Systems for Manufacturing and Engineering (Hong Kong)
- 1994 International Conference on Parallel and Distributed Systems (Taiwan)
- 1993 ACM SIGMOD International Conference on Management of Data (USA)
- 1993 IEEE International Conference on Data Engineering (Austria)
- 1992 IEEE International Conference on Data Engineering (USA)
- 1992 International Workshop on Database Management Horizon (Hong Kong)

## **PUBLICATION LIST**

### **(A) Journal Papers**

- J.L. Koh, C.C. Chen, C.Y. Chan, A.L.P. Chen, "MapReduce Skyline Query Processing with Partitioning and Distributed Dominance Tests," *Information Sciences* (to appear).
- I.C. Lee, E.E. Chen, C.H. Tsai, N.S. Yen, A.L.P. Chen, W.C. Lin, 2016, "Voting Intention and Choices: Are Voters Always Rational and Deliberative?" *PLOS ONE*.
- Y.C. Fan, Y.C. Chen, K.C. Tung, K.C. Wu, A.L.P. Chen, 2016, "A Framework for Enabling User Preference Profiling through Wi-Fi Logs," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 28, No. 3, pp. 592-603.
- J.L. Koh, C.Y. Lin, A.L.P. Chen, 2014, "Finding k Most Favorite Products based on Reverse Top-t Queries," *The VLDB Journal*, 23(4): 541-564.
- C.L. Li, E.T. Wang, G.J. Huang, A.L.P. Chen, 2014, "Top-n Query Processing in Spatial Databases Considering Bi-chromatic Reverse k-Nearest Neighbors," *Information Systems Journal*, Vol. 42, pp. 123-138.

- M.F. Tsai, C.W. Tzeng, A.L.P. Chen, 2014, "Discovering Leaders from Social Networks by Action Cascades," *Social Network Analysis and Mining*, Vol. 4, No. 1.
- C.Y. Lin, J.L. Koh, A.L.P. Chen, 2013, "Determining k-Most Demanding Products with Maximum Expected Number of Total Customers," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 25, No. 8, pp. 1732-1747.
- Y.C. Fan and A.L.P. Chen, 2012, "Energy Efficient Schemes for Accuracy-Guaranteed Sensor Data Aggregation using Scalable Counting," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 24, No. 8, pp. 1463-1477.
- C.W. Cho, Y.H. Wu, S.J. Yen, Y. Cheng, A.L.P. Chen, 2011, "On-Line Rule Matching for Event Prediction," *The VLDB Journal*, 20(3): 303-334.
- E.T. Wang and A.L.P. Chen, 2011, "Mining Frequent Itemsets over Distributed Data Streams by Continuously Maintaining a Global Synopsis," *Data Mining and Knowledge Discovery*, Vol. 23, No. 2, pp. 252-299.
- N.S. Yen, J.L. Tsai, P.L. Chen, H.Y. Lin, A.L.P. Chen, 2011, "Effects of Typographic Variables on Eye Movement Measures in Reading Chinese from the Screen," *Behaviour & Information Technology*, 30(6), 797-808.
- Y.C. Fan and A.L.P. Chen, November 2010, "Efficient and Robust Schemes for Sensor Data Aggregation based on Linear Counting," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 21, No. 11, pp. 1675-1691.
- N.H. Liu, Y.H. Wu and A.L.P. Chen, July 2010, "Identifying Prototypical Melodies by Extracting Approximate Repeating Patterns from Music Works," *Journal of Information Science and Engineering*, Vol. 26, No. 4, pp.1181-1198.
- E.T. Wang and A.L.P. Chen, 2009, "A Novel Hash-based Approach for Mining Frequent Itemsets over Data Streams Requiring Less Memory Space," *Data Mining and Knowledge Discovery*, Springer, Vol. 19, No. 1, pp.132-172.
- D.Y. Chiu, Y.H. Wu and A.L.P. Chen, 2009, "Efficient Frequent Sequence Mining by a Dynamic Strategy Switching Algorithm," *The VLDB Journal*, Vol. 18, No. 1, pp.303-327.
- C.W. Cho, Y.H. Wu and A.L.P. Chen, 2009, "Effective Database

Transformation and Efficient Support Computation for Mining Sequential Patterns," *Journal of Intelligent Information Systems*, Vol. 32, No. 1, pp.23-51.

- H.C. Chen, Y.H. Wu, Y.C. Soo and A.L.P. Chen, 2008, "Continuous Query Processing over Music Streams Based on Approximate Matching Mechanisms," *ACM/Springer Multimedia Systems Journal*, Vol. 14, No. 1, pp.51-70.
- Y.H. Wu, C.M. Chiang and A.L.P. Chen, 2007, "Hiding Sensitive Association Rules with Limited Side Effects," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 19, No. 1, pp.29-42.
- S.C. Lo and A.L.P. Chen, 2007, "Efficient Index and Data Allocation for Wireless Broadcast Services," *Data & Knowledge Engineering*, Elsevier, Vol. 60, No. 1, pp.235-255.
- P.Y. Chen and A.L.P. Chen, 2006, "A Similarity-based Motion Track Management for Video Retrieval," *Journal of Information Science and Engineering (EI,SCIE)*, Vol. 7, No. 1, pp.1-11.
- C.H. Lin and A.L.P. Chen, 2006, "Indexing and Matching Multiple-Attribute Strings for Efficient Multimedia Query Processing," *IEEE Transactions on Multimedia (EI,SCIE)*, Vol. 8, No. 2, pp.408-411.
- Y.C. Chang, Y.H. Wu and A.L.P. Chen, 2006, "Discovering Phenomena – Correlations among Association Rules," *Journal of Internet Technology (EI)*, Vol. 7, No. 1, pp.1-11.
- N.H. Liu, Y.H. Wu and A.L.P. Chen, 2005, "Efficient kNN Search in Polyphonic Music Databases Using a Lower Bounding Mechanism," *ACM Multimedia Systems Journal (EI,SCI)*, Vol. 10, No. 6, pp.513-528.
- C.H. Hsu, G. Lee and A.L.P. Chen, 2005, "An Efficient Algorithm for Near Optimal Data Allocation on Multiple Broadcast Channels," *Distributed and Parallel Databases (EI,SCI)*, Springer Science, Vol. 18, No. 3, pp.207-222.
- W.W. Hsieh and A.L.P. Chen, 2005, "Constructing a Bowling Information System with Video Content Analysis," *Multimedia Tools and Applications (EI,SCIE)*, Springer Science, Vol. 26, No. 2, pp.207-220.
- G. Lee, Y.N. Pan and A.L.P. Chen 2005, "Data Scheduling in Multiple Channels/Multiple Receivers Environments for processing Data Requests with Timing Constraints," *Journal of Information Science and Engineering (EI,SCIE)*, Vol. 21, No. 6, pp.1179-1199.
- H.C. Chen and A.L.P. Chen, 2005, "A Music Recommendation System

based on Music and User Grouping," *Intelligent Information Systems* (EI,SCIE), 24:2/3, Springer Science, pp.113-132.

- G. Lee, S.C. Lo and A.L.P. Chen, October 2002, "Data Allocation on Wireless Broadcast Channels for Efficient Query Processing," *IEEE Transactions on Computers: Special Section on Data Management Systems and Mobile Computing* (EI,SCI), Vol. 51, No. 10, pp.1237-1252.
- P.S.M. Tsai and A.L.P. Chen, July/August 2002, "Optimizing Queries with Foreign Functions in a Distributed Environment," *IEEE Transactions on Knowledge and Data Engineering* (EI,SCI), Vol. 14, No. 4, pp.809-824.
- J.L. Koh and A.L.P. Chen, July/August 2002, "Efficient Query Processing in Integrated Multiple Object Databases with Maybe Result Certification," *IEEE Transactions on Knowledge and Data Engineering* (EI,SCI), Vol. 14, No. 4, pp.691-708.
- S.C. Lo and A.L.P. Chen, July 2002, "Adaptive Region-Based Location Management for PCS Systems," *IEEE Transactions on Vehicular Technology* (EI,SCI), Vol. 51, No. 4, pp.667-676.
- Y.H. Wu and A.L.P. Chen, 2002, "Prediction of Web Page Accesses by Proxy Server Log," *World Wide Web: Internet and Web Information Systems* (SCIE), Kluwer Academic Publishers, Vol. 5, No. 1, pp.67-88.
- J.L. Koh and A.L.P. Chen, March 2002, "An Approach to Querying Multiple Object Databases," *Journal of Information Science and Engineering* (EI,SCIE), Vol. 18, No. 2, pp.281-310.
- C.C. Liu and A.L.P. Chen, January/February 2002, "3D-List: A Data Structure for Efficient Video Query Processing," *IEEE Transactions on Knowledge and Data Engineering* (EI,SCI), Vol. 14, No. 1, pp.106-122.
- T.C.T. Kuo and A.L.P. Chen, 2002, "A Mask Matching Approach for Video Segmentation on Compressed Data," *Information Sciences: an International Journal* (EI,SCI), special issue on Intelligent Multimedia Computing and Networking, pp.169-191.
- S.J. Yen and A.L.P. Chen, September/October 2001, "A Graph-Based Approach for Discovering Various Types of Association Rules," *IEEE Transactions on Knowledge and Data Engineering* (EI,SCI), Vol. 13, No. 5, pp.839-845.
- J.L. Hsu, C.C. Liu and A.L.P. Chen, September 2001, "Discovering Non-Trivial Repeating Patterns in Music Data," *IEEE Transactions on Multimedia* (EI,SCIE), Vol. 3, No. 3, pp.311-325.

- G. Lee and A.L.P. Chen, 2001, "The Design of Location Regions using User Movement Behaviors in PCS Systems," *Multimedia Tools and Applications* (EI,SCIE), Kluwer Academic Publishers, Vol. 15, pp.187-202.
- G. Lee, K.L. Lee and A.L.P. Chen, 2001, "Efficient Graph-Based Algorithms for Discovering and Maintaining Association Rules in Large Databases," *Knowledge and Information Systems* (SCIE), Springer-Verlag, Vol. 3, pp.338-355.
- C.C. Liu, A.J.L. Hsu and A.L.P. Chen, 2001, "Efficient Near Neighbor Searching Using Multi-Indexes for Content-Based Multimedia Data Retrieval," *Multimedia Tools and Applications* (EI,SCIE), Kluwer Academic Publishers, pp.235-254.
- S.C. Lo and A.L.P. Chen, July/August 2000, "An Adaptive Access Method for Broadcast Data under an Error-Prone Mobile Environment," *IEEE Transactions on Knowledge and Data Engineering* (EI,SCI), Vol. 12, No. 4, pp.609-620.
- T.C.T. Kuo and A.L.P. Chen, March 2000, "Content-Based Query Processing for Video Databases," *IEEE Transactions on Multimedia* (EI,SCIE), Vol. 2, No. 1, pp.1-13.
- P.S.M. Tsai and A.L.P. Chen, July 2000, "Partial Natural Outerjoin - An Operation for Interoperability in a Multidatabase Environment," *Journal of Information Science and Engineering* (EI,SCIE), Vol. 16, No. 4, pp.593-617.
- A.L.P. Chen, C.C. Liu and T.C.T. Kuo, 1999, "Content-based Video Data Retrieval," *Proceedings of the National Science Council, ROC(A)*, Vol. 23, No. 4, pp.449-465.
- P.S.M. Tsai and A.L.P. Chen, 1999, "A Methodology for Schema Integration Using Concept Hierarchies," *Integrated Computer-Aided Engineering* (EI), 6(3), pp.233-248, John Wiley & Sons.
- C.S. Chang and A.L.P. Chen, 1998, "Supporting Conceptual and Neighborhood Queries on WWW," *IEEE Transactions on Systems, Man, and Cybernetics*, Part C: application and reviews (EI,SCI), Vol.28, no.2, pp.300-308.
- C.S. Chang and A.L.P. Chen, 1997, "Efficient Refinement of Uncertain Data by Fuzzy Integrity Constraints," *Information Sciences: An International Journal* (EI,SCI), Elsevier Science, pp. 191-212.
- C.C. Liu and A.L.P. Chen, 1997, "Vega: A Multimedia Database System Supporting Content-Based Retrieval," *Information Science and*



*Engineering* (EI), p. 369-398.

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- K.C. Tung, E.T. Wang, A.L.P. Chen, "Mining Event Sequences from Social Media for Election Prediction," Proc. Industrial Conference on Data Mining.
- Y.C. Chen, E.T. Wang, A.L.P. Chen, "Mining User Trajectories from Smartphone Data Considering Data Uncertainty," Proc. International Conference on Big Data Analytics and Knowledge Discovery - DaWaK 2016.

2015

- Y.H. Chou, E.T. Wang, A.L.P. Chen, "Finding Maximal Quasi-Cliques Containing a Target Vertex in a Graph," Proc. International Conference on Data Management Technologies and Applications.
- R.S. Jheng, E.T. Wang, A.L.P. Chen, "Determining Top-K Candidates by Reverse Constrained Skyline Queries," Proc. International Conference on Data Management Technologies and Applications.

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- P.S.M. Tsai and A.L.P. Chen, "An Approach to Resource Discovery in Distributed Autonomous Databases," Proc. International Conference on Information Networking (invited paper).
- Y.H. Wu, Y.H. Chen and A.L.P. Chen, "Querying and Browsing Resources in Internet," Proc. International Conference on Distributed Systems, Software Engineering, and Database Systems.
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