

June 2, 2021

Curriculum Vitae **Alexander Kogan**

Address:

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Accounting and Information Systems
Rutgers University
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Research Interests: *Accounting information systems, continuous auditing, audit analytics, artificial intelligence, expert systems, knowledge-based decision support systems, electronic commerce and accounting problems of the Internet infrastructure, logical analysis of data, Boolean functions, reasoning under uncertainty, information technology assurance and homeland security, combinatorial optimization, and productivity accounting.*

Education:

1984 - 1988 Ph.D. in *Computer Science*, Computer Center of the USSR Academy of Sciences, Moscow, USSR.
1978 - 1984 M.S. (Honors) in *Applied Mathematics and Operations Research*, Moscow Institute of Physics and Technology (Phystech), Moscow, USSR (graduated with straight A's).

Employment:

2001 - present PROFESSOR
(1999 - 2001 ASSOCIATE PROFESSOR)
(1993 - 1999 ASSISTANT PROFESSOR)
Rutgers Business School, Department of Accounting and Information Systems, Rutgers University, Newark, NJ. Member of RUTCOR – Rutgers Center for Operations Research, Rutgers University, New Brunswick, NJ.
1992 - 1993 VISITING PROFESSOR, Graduate School of Management, Rutgers University, Newark, NJ, and RUTCOR – Rutgers Center for Operations Research, Rutgers University, New Brunswick, NJ.
1990 - 1992 POST-DOCTORAL ASSOCIATE, RUTCOR – Rutgers Center for Operations Research, Rutgers University, New Brunswick, NJ.
1987 - 1990 RESEARCH ASSOCIATE, Cybernetics Research Center of the USSR Academy of Sciences, Moscow, USSR.
1984 - 1987 RESEARCH ASSISTANT, Computer Center of the USSR Academy of Sciences, Moscow, USSR.

Awards:

- 2020** Award for Service as Senior Editor of the *Journal of Information Systems* of the American Accounting Association.
- 2019** Bright Idea Research Award of *New Jersey Business*, the New Jersey Policy Research Organization Foundation and the Stillman School of Business at Seton Hall University.
- 2015** Outstanding Service Award of the Strategic and Emerging Technologies Section of the American Accounting Association.
- 2007** Bright Idea Research Award of *New Jersey Business*, the New Jersey Policy Research Organization Foundation and the Stillman School of Business at Seton Hall University.
- 2006** Award for Dedicated Service to the *Journal of Emerging Technologies in Accounting* of the American Accounting Association.
- 2001** Artificial Intelligence / Emerging Technologies Section of the American Accounting Association Research Award.
- 2000** *Discrete Applied Mathematics* 1999 Editors' Choice paper selection.
- 1999** Artificial Intelligence / Emerging Technologies Section of the American Accounting Association Service Award.
- 1999** Rutgers University's Board of Trustees Research Fellowship for Scholarly Excellence.
- 1998** First Rutgers Faculty of Management Research Award for Untenured Faculty.
- 1986** For best paper presented at the Fifth Moscow Conference of Young Computer Scientists.

Professional Activities:

- 2017 - 2019** Senior Co-Editor of the *Journal of Information Systems* of the AAA (responsible for JIS issues published in 2018 - 2020).
- 2014 - present** Associate Editor of the *Journal of Emerging Technologies in Accounting* of the AAA.
- 2011 - 2014** Editor of the *Journal of Emerging Technologies in Accounting* of the AAA (Volumes 9, 10 and 11).
- 2009 - 2011** Associate Editor of the *Journal of Emerging Technologies in Accounting* of the AAA.
- 2004 - 2008** Member of the Editorial Board of the *Journal of Emerging Technologies in Accounting* of the AAA.
- 2004 - 2008** Guest Editor of the Special Issues of *Discrete Applied Mathematics* on "Discrete Mathematics and Data Mining": Vol. 144 (1-2) (2004), Vol. 154 (7) (2006), and Vol. 156 (6) (2008).
- 2002 - 2005** Member of the Board of Research Fellows of the Center for Continuous Auditing.
- 2000 - present** Member of the Editorial Board of the *International Journal of Digital Accounting Research*.
- 2000 - present** Member of the Editorial Board of the *Annals of Mathematics and Artificial Intelligence*.
- 2000** Moderated a session, American Accounting Association National Meeting, Philadelphia, PA.
- 1999 - 2000** Publicity Chair for the Sixth International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.

- 1998** Organized (with P.L. Hammer) a cluster of invited sessions, INFORMS National Meeting, Seattle, WA.
- 1998** Organized (with E.F. Sudit) an invited session, INFORMS National Meeting, Montréal, Québec.
- 1997 - 1998** Publicity Chair for the Fifth International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.
- 1997** Chaired a session, 16th International Symposium on Mathematical Programming (ISMP 97), Lausanne, Switzerland.
- 1995** Chaired an invited session, American Accounting Association National Meeting, Orlando, FL.
- 1994** Organized an invited session, TIMS International Meeting, Anchorage, AK.
- 1994** Organized (with E. Boros) three invited sessions, 3rd International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.
- 1993** Organized two invited sessions, TIMS/ORSA Joint National Meeting, Chicago, IL.

Academic Service:

- 2019 - 2021** Chairman of the Technology Policy Committee of the Rutgers Business School.
- 2019 - 2020** Member of the Special Programs Policy Committee of the Rutgers Business School.
- 2017 - present** Member of the Learning Management Systems Committee of Rutgers University.
- 2013 - 2014** Chairman of the Technology Policy Committee of the Rutgers Business School.
- 2012 - 2014** Member of the Courses of Study Committee of the Rutgers Business School.
- 2012 - 2013** Member of the Technology Policy Committee of the Rutgers Business School.
- 2011 - 2012** Chairman of the Technology Policy Committee of the Rutgers Business School.
- 2009 - 2011** Member of the Technology Policy Committee of the Rutgers Business School.
- 2009 - 2010** Member of the Appointments and Promotions Committee of the Rutgers Business School.
- 1999 - 2009** Coordinator of the Rutgers SAP University Alliance.
- 1994 - 2008** Webmaster of the Rutgers Accounting Web (RAW).
- 2000 - 2007** Rutgers Business School Faculty Parliamentarian.
- 2000 - 2007** Member of the Technology Policy Committee of the Rutgers Business School.
- 2006 - 2007** Member of the Newark Instructional Computing Initiative (ICI) Committee.
- 2006 - 2007** Member of the Appointments and Promotions Committee of the Rutgers Business School.
- 2003 - 2005** Member of the Rutgers Information Technology Project Governance Committee.
- 2003 - 2004** President of the Artificial Intelligence/Emerging Technologies section of the American Accounting Association.
- 2002 - 2004** Chairperson of the Technology Policy Committee of the Rutgers Business School.
- 1997 - 2004** Webmaster of the Artificial Intelligence/Emerging Technologies section of the American Accounting Association.
- 1995 - 2004** Member of the MBA Scholastic Standing Committee of the Faculty of Management.
- 2002 - 2003** President-Elect of the Artificial Intelligence/Emerging Technologies section of the American Accounting Association.
- 2002 - 2003** Member of the Rutgers Information Technology Coordinating Committee.
- 2001 - 2002** Vice Chairperson of the Artificial Intelligence/Emerging Technologies section of

	the American Accounting Association.
2001 - 2003	Member of the New Brunswick Campus Computer Advisory Committee.
2000 - 2001	Member of the Newark Campus Information Technology Advisory Committee.
1994 - 1996	Member of the Computer Policy Committee of the Faculty of Management.
1994 - 1995	Member of the Research Resources Committee of the Faculty of Management.
1993 - 1994	Chairman of the Computer Policy Committee of the Faculty of Management.

Ph.D. Dissertation Committees:

Chair: Dr. Jamie Freiman, Summer 2020, Dr. Cheng Yin, Spring 2018, Dr. Yunsen Wang, Spring 2018, Dr. Pei Li, Spring 2016, Dr. Paul Byrnes, Fall 2015, Dr. Roman Chychyla, Spring 2014, Dr. Hussein Issa, Summer 2013, Dr. David Chan, Spring 2012, Dr. Tiberius Bonates, Fall 2007 (with Peter L. Hammer); Dr. Irina Lozina, Spring 2007 (with Peter L. Hammer).

Member: Dr. Sheng-Feng Hsieh, Spring 2021, Dr. Arion Cheong, Spring 2021, Dr. Zhaokai Yan, Fall 2019, Dr. Yue Liu, Spring 2019, Dr. Andrea Rozario, Spring 2019, Dr. Qiao Li, Fall 2018, Dr. Feiqi Huang, Fall 2018, Dr. Ting Sun, Spring 2018, Dr. Tiffani Chiu, Spring 2018, Dr. He Li, Fall 2017, Dr. Jun Dai, Fall 2017, Dr. Deniz Appelbaum, Spring 2017, Dr. Basma Moharram, Fall 2016, Dr. Kyunghye Yoon, Spring 2016, Dr. Daehyun Moon, Fall 2015, Dr. Aritanan Gruber, Fall 2014, Dr. Qi Liu, Summer 2014, Dr. Khrystyna Bochkay, Spring 2014, Dr. Ryan Teeter, Spring 2014, Dr. Siripan Kuenkaikaew, Fall 2013, Dr. Sutapat Thiprungsri, Fall 2011, Dr. Yongbum Kim, Summer 2011, Dr. Vasundhara Chakraborty, Summer 2011, Dr. Silvia Romero, Fall 2008; Dr. Jia Wu, Summer 2006; Dr. Konrad Borys, Summer 2006; Dr. Wei Jiang, Spring 2005; Dr. Rodica Boliac, Fall 2004; Dr. Yu Cong, Fall 2004; Dr. Tatsiana Levina, Spring 2004, Dr. Sorin Alexe, Fall 2003; Dr. Gabriela Alexe, Fall 2003; Dr. Ran Hoitash, Fall 2003; Dr. Sandor Szedmak, Fall 2002; Dr. Hui Du, Spring 2002; Dr. Lijie Shi, Fall 2001; Dr. Tonguc Unluyurt, Summer 1999; Dr. Rimona Palas, Spring 1998; Dr. David Rader, Spring 1997; Dr. Oya Ekin, Spring 1997; Dr. Yuko Minowa, Summer 1996; Dr. Tamas Badics, Spring 1996; Dr. Joseph Natovich, Spring 1996; Dr. Arun Balakrishnan, Fall 1995; Dr. Ondrej Cepek, Summer 1995.

Membership: American Accounting Association.

Refereeing: for *Discrete Mathematics*, *Discrete Applied Mathematics*, *Annals of Mathematics and Artificial Intelligence*, *Discrete Optimization*, *Society for Industrial and Applied Mathematics (SIAM) Journal on Discrete Mathematics*, *Annals of Operations Research*, *Journal of Classification*, *Constraints*, *Information and Computation*, *IEEE Intelligent Systems*, *Journal of Information Systems*, *Auditing – A Journal of Practice and Theory*, *International Journal of Accounting Information Systems*, *Journal of Emerging Technologies in Accounting*, *MIS Quarterly*, *The Accounting Review*, *Accounting Horizons*.

Educational Development:

2021	Revised the core information systems doctoral course “Electronic Commerce”.
2020	Revised an existing undergraduate course – “Accounting Information Systems”.
2019	Revised the core information systems doctoral course “Electronic Commerce”.
2017	Revised an existing undergraduate course – “Accounting Information Systems”.
2016	Revised the core information systems doctoral course “Electronic Commerce”.

- 2015** Developed a part of the new introductory doctoral seminar “Accounting Information System”.
- 2013** Revised the core information systems doctoral course “Electronic Commerce”.
- 2012** Revised the core information systems doctoral course “Machine Learning”.
- 2011** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2009** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2007** Revised the core information systems doctoral course “Expert Systems” to cover all the main areas of machine learning.
- 2007** Revamped an existing undergraduate course – “Computer Augmented Accounting” to cover integrated computer accounting systems on the foundation of relational database systems and business event modeling.
- 2006** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2005** Revised the core MBA course “Introduction to Information Technology”.
- 2004** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2002** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2000/01** Revised the MBA elective “Enterprise Resource Planning Systems” to incorporate the use of a live SAP R/3 system and student team presentations of R/3 application modules.
- 2000/01** Thoroughly revised the core information systems doctoral course “Electronic Commerce”.
- 2000/01** Redesigned the “Internet Technology and Business” course to cover all the required foundational topics (both technological and commercial) of the MBA concentration in Electronic Commerce.
- 1999/2000** Developed and taught for the first time a new MBA course – “Enterprise Resource Planning Systems” – an elective for the new MBA concentration in Electronic Commerce.
- 1999/2000** Developed a new MBA course – “Internet Technology for Business” – the foundational course for the new MBA concentration in Electronic Commerce (using the technology part of the MBA course “Wired for the Technological Future: What Business Professionals Have to Know about Cyberspace” as the basis).
- 1998/99** Developed a new doctoral course – “Electronic Commerce”, the first doctoral level course devoted to this emerging academic discipline. This course became a core requirement for the information systems majors of the Ph.D. in Management program.
- 1996/97** Added the coverage of Internet technology and accounting resources on the Internet to the content of “Computer Augmented Accounting” – an upper division undergraduate course on integrated computer accounting systems.
- 1995/96** Revamped an existing undergraduate course – “Computer Augmented Accounting” to cover integrated computer accounting systems (instead of spreadsheets) on the basis of Peachtree Accounting for Windows.
- 1995/96** Developed (together with M.A. Vasarhelyi) a new MBA elective – “Wired for the Technological Future: What Business Professionals Have to Know about Cyberspace”,

the first Rutgers MBA course covering the Internet technology and its business applications.

1993/94 Revised the undergraduate course – “Computer Augmented Accounting” – by moving from a DOS based course to a Windows based one.

Invited Visits:

2000 Kyoto University, Kyoto, Japan.

1999 THESEUS – International Management Institute, Sophia Antipolis, France.

1996 Kyoto University, Kyoto, Japan.

Presentations:

2020 AAA Information Systems Section Mid-Year Meeting, Orlando, FL. Program talk.

2019 AAA National Meeting, San Francisco, CA. Program talk.

2018 Journal of Information Systems Conference 2018 (JISC2018), Durham, NC. Program talk.

2018 AAA Information Systems Section Mid-Year Meeting, Newport Beach, CA. Program talk.

2017 AAA National Meeting, San Diego, CA. Program talk.

2017 2017 International Symposium on Accounting Information Systems (ISAIS), Valencia, Spain. Program talk.

2017 AAA Information Systems Section Mid-Year Meeting, Orlando, FL. Program talk.

2017 AAA Auditing Section Mid-Year Meeting, Orlando, FL. Program talk.

2016 Journal of Information Systems Conference 2016 (JISC2016), Pleasanton, CA. Program paper discussion.

2016 37th World Continuous Auditing and Reporting Symposium, Brisbane, Australia. Program talk.

2016 AAA National Meeting, New York, NY. Program talk.

2015 AAA National Meeting, Chicago, IL. Program talk.

2015 AAA Information Systems Section Mid-Year Meeting, Charleston, SC. Program talk.

2014 AAA National Meeting, Atlanta, GA. Program talk.

2014 AAA Information Systems Section Mid-Year Meeting, Raleigh, NC. Program talk.

2013 AAA National Meeting, Anaheim, CA. Program talk.

2013 AAA Information Systems Section Mid-Year Meeting, Ft. Lauderdale, FL. Program talk.

2012 AAA National Meeting, Washington, DC. Program talk.

2012 AAA Information Systems Section Mid-Year Meeting, Phoenix, AZ. Editors roundtable.

2011 AAA National Meeting, Denver, CO. Program talk.

2011 AAA Information Systems Section Mid-Year Meeting, Atlanta, GA. Program talk.

2010 AAA National Meeting, San Francisco, CA. Program talk.

2009 6th Bi-Annual Symposium on Information Integrity and Information Systems Assurance, University of Waterloo, Toronto, Canada. Program talk.

2009 AAA National Meeting, New York, NY. Program talk.

2009 17th World Continuous Auditing and Reporting Symposium, Thessaloniki, Greece.

2009 DIMACS - RUTCOR Workshop on Boolean and Pseudo-Boolean Functions in Memory of Peter L. Hammer, Rutgers University, New Brunswick, NJ.

2009 AAA Information Systems Section Mid-Year Meeting, Charleston, SC. Program talk.

2008 9th International Research Symposium on Accounting Information Systems, Paris, France.

- 2008** 16th Continuous Auditing and Reporting Symposium, Rutgers University, Newark, NJ.
- 2008** AAA National Meeting, Anaheim, CA. Program talk.
- 2008** 15th Continuous Auditing and Reporting Symposium, Crete, Greece.
- 2007** 14th Continuous Auditing and Reporting Symposium, Rutgers University, Newark, NJ.
- 2007** 5th Symposium on Information Systems Assurance, University of Waterloo, Toronto, Canada. Invited discussion.
- 2007** AAA National Meeting, Chicago, IL. Program talk.
- 2007** 13th Continuous Auditing and Reporting Symposium, Ferrara, Italy.
- 2007** AAA Information Systems Section Mid-Year Meeting, Savannah, GA. Program talk and invited discussion.
- 2006** 12th Continuous Auditing and Reporting Symposium, Rutgers University, Newark, NJ.
- 2006** AAA National Meeting, Washington, DC. Program talk.
- 2006** 11th Continuous Auditing and Reporting Symposium, Brazil.
- 2005** Research Symposium on Information Systems Assurance, University of Waterloo, Toronto, Canada.
- 2005** AI/ET Workshop, AAA National Meeting, San Francisco, CA.
- 2005** 9th Continuous Auditing and Reporting Symposium, Malta.
- 2004** 8th Continuous Auditing and Reporting Symposium, Rutgers University, Newark, NJ.
- 2004** AAA National Meeting, Orlando, FL. Program talk.
- 2004** 7th Continuous Auditing and Reporting Symposium, Monaco.
- 2003** Research Symposium on Information Systems Assurance, University of Waterloo, Toronto, Canada.
- 2003** International Conference on XBRL Taxonomies: Current Issues and Future Directions, Lawrence, KS. Invited talk.
- 2003** AAA National Meeting, Honolulu, HI. Program talk.
- 2003** IMA 84th Annual Conference, Nashville, TN. Invited talk.
- 2002** New Jersey Chapter of INFORMS, RUTCOR, Rutgers University, New Brunswick, NJ. Invited talk.
- 2002** AI/ET Workshop, American Accounting Association National Meeting, San Antonio, TX.
- 2002** Workshop on Discrete Mathematics and Data Mining, Second SIAM International Conference on Data Mining, Arlington, VA.
- 2002** First AAA Information Systems Mid-Year Conference, Orlando, FL.
- 2002** 7th International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.
- 2001** INFORMS Meeting, Miami Beach, FL. Invited talk.
- 2001** AAA National Meeting, Atlanta, GA. Invited discussion.
- 2001** INFORMS International Meeting, Maui, HI. Invited talk.
- 2001** 3rd Continuous Reporting and Auditing Conference, Rutgers University, Newark, NJ. Invited talk.
- 2001** AAA Auditing Section 25th Anniversary Midyear Conference, Houston, TX. Invited discussion.
- 2000** 17th International Symposium on Mathematical Programming (ISMP 2000), Atlanta, GA. Invited talk.
- 2000** Kyoto University, Kyoto, Japan. Invited talk.
- 2000** 2nd Continuous Auditing and Reporting Symposium, Rutgers University, Newark, NJ. Invited talk.
- 2000** 6th International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.

- 1999 AI/ET Workshop, American Accounting Association National Meeting, San Diego, CA.
- 1999 AIS Research Symposium, Scottsdale, AZ. Invited panel talk.
- 1998 INFORMS National Meeting, Seattle, WA. Invited talk.
- 1998 AAA National Meeting, New Orleans, LA. Program talk.
- 1998 INFORMS National Meeting, Montréal, Québec. Invited talk.
- 1998 Online Auditing and Reporting Conference: Accounting 2000 Series, Rutgers University, Newark, NJ. Invited talk.
- 1998 5th International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL.
- 1997 INFORMS National Meeting, Dallas, TX. Invited talk.
- 1997 16th International Symposium on Mathematical Programming (ISMP 97), Lausanne, Switzerland. Invited talk.
- 1997 AI/ES Workshop, AAA National Meeting, Dallas, TX.
- 1997 AT&T Labs, Murray Hill, NJ. Invited talk.
- 1997 Rutgers Colloquium on Accounting 2000: Electronic Commerce, Artificial Intelligence and other Information Technologies, Newark, NJ. Invited talk.
- 1996 Hiroshima University, Hiroshima, Japan. Invited talk.
- 1996 IBM-Japan, Tokyo, Japan. Invited talk.
- 1996 Kyoto University, Kyoto, Japan. Invited talk.
- 1996 AI/ES Workshop, AAA National Meeting, Chicago, IL. Invited talk.
- 1996 4th International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL. Invited talk.
- 1995 INFORMS National Meeting, New Orleans, LA. Invited talk.
- 1995 5th International Workshop on Artificial Intelligence and Statistics, Fort Lauderdale, FL. Plenary talk.
- 1994 TIMS International Meeting, Anchorage, AK. Invited talk.
- 1994 Graduate School of Business, Columbia University, New York, NY. Invited talk.
- 1994 3rd International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, FL. Invited talk.
- 1993 Siemens Corporate Research, Princeton, NJ. Invited talk.
- 1993 TIMS/ORSA Joint National Meeting, Chicago, IL. Invited talk.
- 1992 Conference on Expert Systems in Accounting, Auditing, and Business Telecommunications, GSM, Rutgers University, Newark, NJ. Invited talk.
- 1992 ORSA/TIMS Joint National Meeting, San Francisco, CA. Invited talk.
- 1992 The Seventh Advanced Research Institute on Discrete Applied Mathematics (ARIDAM VII), RUTCOR, Rutgers University, New Brunswick, NJ.
- 1992 Spring DIMACS Forum, Rutgers University, New Brunswick, NJ. Invited talk.
- 1992 Computer Science and Operations Research: New Developments in their Interfaces, ORSA CSTS Conference, Williamsburg, VA.
- 1991 The Sixth Advanced Research Institute on Discrete Applied Mathematics (ARIDAM VI), RUTCOR, Rutgers University, New Brunswick, NJ.
- 1991 The First Workshop on Combinatorial Optimization in Science and Technology (COST), DIMACS – RUTCOR, Rutgers University, New Brunswick, NJ.

Publications

Books:

1. *Continuous Auditing*, Portfolio 5405, Accounting Policy and Practice Series, Tax Management

- Inc., a BNA Company, Washington, DC, 2007. Co-authors M.A. Alles, M.A. Vasarhelyi, and J.D. Warren.
2. *The Internet Guide for Accountants*, Prentice-Hall, Upper Saddle River, NJ, 1998, XIII+252 pp. Co-authors E.F. Sudit and M.A. Vasarhelyi. Chinese translation: Pearson Education North Asia and Peking University Press, 2002, III+256 pp.
 3. *Artificial Intelligence in Accounting and Auditing. Volume 4: Towards New Paradigms*, Markus Wiener Publishers, Princeton, NJ, 1998, VII+199 pp. Co-editor M.A. Vasarhelyi.

Chapters in Books:

4. “Prime implicants and minimal DNFs”, Chapter 3 in: *Boolean Functions. Theory, Algorithms, and Applications. Vol. 1*. Yves Crama and Peter L. Hammer. Cambridge University Press, 2011, 123–166. Co-author Peter L. Hammer.
5. “Combinatorial methods for constructing credit risk ratings”, Chapter 43 in: *Handbook of Quantitative Finance and Risk Management*. Lee, Cheng-Few; Lee, Alice C.; Lee, John (Eds.). Springer, 2010, Part IV, 639 – 664. Co-author M.A. Lejeune. Reprinted in: *Handbook of Financial Econometrics and Statistics*. Lee, Cheng-Few; Lee, John (Eds.). Springer, 2015, Vol. 1, 439 – 483.
6. “Uncertainty, flexible production productivity, and effectiveness”, in: E.F. Sudit, *Effectiveness, Quality and Efficiency: A Management Oriented Approach*. Kluwer Academic Publishers, Norwell, MA, 1996, 67 – 81. Co-author E.F. Sudit.
7. “Minimization of binary functions with a small number of zeros”, *Mathematical Techniques for Pattern Recognition and Discrete Optimization* (in Russian). USSR Academy of Sciences, Moscow, 1987, 60 – 76 (*Mathematical Reviews*, October 1989, 89j: 94046).

Articles in Scholarly Journals (refereed by peers):

8. “Basics of SQL for audit data retrieval and analysis”, *Journal of Emerging Technologies in Accounting*, accepted for publication, May 2021. Co-authors Nuriddin Tojiboyev, Deniz Appelbaum, Miklos A. Vasarhelyi.
9. “Privacy-preserving information sharing within an audit firm”, *Journal of Information Systems*, accepted for publication, June 2020. Co-author Cheng Yin.
10. “Cloud-based in-memory columnar database architecture for continuous audit analytics”, *Journal of Information Systems*, Vol. 34, No. 2, Summer 2020, 87–107. Co-author Yunsen Wang.
11. “Audit data analytics research - An application of design science methodology”, *Accounting Horizons*, Vol. 33, No. 3, September 2019, 69–73. Co-authors Brian W. Mayhew and Miklos A. Vasarhelyi.
12. “Designing confidentiality-preserving blockchain-based transaction processing systems”, *International Journal of Accounting Information Systems*, Vol. 30, September 2018, 1–18. Co-author Yunsen Wang.
13. “Analytical procedures in external auditing: A comprehensive literature survey and framework for external audit analytics”, *Journal of Accounting Literature*, Vol. 40, June 2018, 83–101. Co-authors Deniz Appelbaum and M.A. Vasarhelyi.

14. “Big data and analytics in the modern audit engagement: Research needs”, *Auditing: A Journal of Practice and Theory*, Vol. 36, No. 4, November 2017, 1–27. Co-authors Deniz Appelbaum and M.A. Vasarhelyi.
15. “Impact of business analytics and enterprise systems on managerial accounting”, *International Journal of Accounting Information Systems*, Vol. 25, May 2017, 29–44. Co-authors Deniz Appelbaum, M.A. Vasarhelyi, and Zhaokai Yan.
16. “The Relationship between an independent audit, restatements, and financial reporting quality: Evidence from small private commercial banks”, *Review of Business (St. John's University)*, accepted for publication, Fall 2016. Co-author David Y. Chan.
17. “Exception prioritization in the continuous auditing environment: A framework and experimental evaluation”, *Journal of Information Systems*, Vol. 30, No. 2, Summer 2016, 135–157. Co-authors Pei Li and David Y. Chan.
18. “Data analytics: Introduction to using analytics in auditing”, *Journal of Emerging Technologies in Accounting*, Vol. 13, No. 1, Spring 2016, 121–140. Co-author David Y. Chan.
19. “Erratum to: Threshold Boolean form for joint probabilistic constraints with random technology matrix”, *Mathematical Programming*, Vol. 155, No. 1, January 2016, 617–620. Co-authors M.A. Lejeune and J. Luedtke.
20. “Big data in accounting: An overview”, *Accounting Horizons*, Vol. 29, No. 2, June 2015, 381–396. Co-authors M.A. Vasarhelyi and Brad M. Tuttle.
21. “Using XBRL to conduct a large-scale study of discrepancies between the accounting numbers in Compustat and SEC 10-K filings”, *Journal of Information Systems*, Vol. 29, No. 1, Spring 2015, 37–72. Co-author Roman Chychyla.
22. “Design and evaluation of a continuous data level auditing system”, *Auditing: A Journal of Practice and Theory*, Vol. 33, No. 4, November 2014, 221–245. Co-authors M.A. Alles, M.A. Vasarhelyi, and Jia Wu.
23. “A predictive ordered logistic regression model as a tool for quality review of control risk assessments”, *Journal of Information Systems*, Vol. 28, No. 2, Fall 2014, 209–229. Co-author Hussein Issa.
24. “Threshold Boolean form for joint probabilistic constraints with random technology matrix”, *Mathematical Programming*, Vol. 147, No. 1-2, October 2014, 391–427. Co-author M.A. Lejeune.
25. “Development of an anomaly detection model for a bank's transitory account system”, *Journal of Information Systems*, Vol. 28, No. 1, Spring 2014, 145–165. Co-author Yongbum Kim.
26. “Collaborative design research: Lessons from continuous auditing”, *International Journal of Accounting Information Systems*, Vol. 14, No. 2, June 2013, 104–112. Co-authors M.A. Alles and M.A. Vasarhelyi.
27. “A logical analysis of banks’ financial strength ratings”, *Expert Systems with Applications*, **39** (9) (2012), 7808–7821. Co-authors P.L. Hammer and M.A. Lejeune.
28. “Reverse-engineering country risk ratings: a combinatorial non-recursive model”, *Annals of Operations Research*, **188** (1) (2011), 185–213. Co-authors P.L. Hammer and M.A. Lejeune.
29. “Logical analysis of data: classification with justification”, *Annals of Operations Research*, **188** (1) (2011), 33–61. Co-authors E. Boros, Y. Crama, P.L. Hammer, T. Ibaraki, and K. Makino.

30. "Assurance on XBRL instance document: A conceptual framework of assertions", *International Journal of Accounting Information Systems*, Vol. 11, No. 3, September 2010, 261–273. Co-author R.P. Srivastava.
Response to discussions on "Assurance on XBRL Instance Document: A Conceptual Framework of Assertions", *International Journal of Accounting Information Systems*, Vol. 11, No. 3, September 2010, 282–284. Co-author R.P. Srivastava.
31. "Exclusive and essential sets of implicates of Boolean functions", *Discrete Applied Mathematics*, **158** (2) (2010), 81–96. Co-authors E. Boros, O. Čepek, and P. Kučera.
32. "A subclass of Horn CNFs optimally compressible in polynomial time", *Annals of Mathematics and Artificial Intelligence*, 57 (3-4) (2009), 249–291. Co-authors E. Boros, O. Čepek, and P. Kučera.
33. "Exploiting comparative advantage: A paradigm for value added research in Accounting Information Systems", *International Journal of Accounting Information Systems*, Vol. 9, No. 4, 202–215, December 2008. Co-authors M.A. Alles and M.A. Vasarhelyi.
34. "Putting continuous auditing theory into practice: Lessons from two pilot implementations", *Journal of Information Systems*, Vol. 22, No. 2, 195–214, Fall 2008. Co-authors M.A. Alles and M.A. Vasarhelyi.
35. "Maximum patterns in datasets", *Discrete Applied Mathematics*, **156** (6) (2008), 846–861. Co-authors Tibérius O. Bonates and P.L. Hammer.
36. "Comprehensive vs. comprehensible classifiers in Logical Analysis of Data", *Discrete Applied Mathematics*, **156** (6) (2008), 870–882. Co-authors G. Alexe, S. Alexe, and P.L. Hammer.
37. "Extraction of structure and content from the Edgar database: A template-based approach", *Journal of Emerging Technologies in Accounting*, Vol. 4, 69–86, 2007. Co-authors Yu Cong and M.A. Vasarhelyi.
38. "Logical analysis of data – the vision of Peter L. Hammer", *Annals of Mathematics and Artificial Intelligence*, 49 (1-4) (2007), 265–312. Co-authors Gabriela Alexe, Sorin Alexe, and Tibérius O. Bonates.
39. "Modeling country risk ratings using partial orders", *European Journal of Operational Research*, **175** (2) (2006), 836–859. Co-authors P.L. Hammer and M.A. Lejeune.
40. "Peer based approach for analytical procedures", *Auditing: A Journal of Practice and Theory*, Vol. 25, No. 2, November 2006, 53–84. Co-authors R. Hoitash and M.A. Vasarhelyi.
41. "Continuous monitoring of business process controls: A pilot implementation of a continuous auditing system at Siemens", *International Journal of Accounting Information Systems*, Vol. 7, No. 2, 137–161, June 2006. Co-authors M.A. Alles, G. Brennan, and M.A. Vasarhelyi.
42. "Measuring information latency", *International Journal of Digital Accounting Research*, Vol. 6, No. 11, 1–24, January - June 2006. Co-authors R. Hoitash, R.P. Srivastava, and M.A. Vasarhelyi.
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