PERSONAL DATA:

Name	:	Marek J. Druzdzel
Office Address	:	Faculty of Computer Science, Białystok University of Technology, Wiejska 45-A, 15-351 Białystok, Poland
Telephone	:	+1–412–212–6550
Electronic Mail	:	druzdzel@pitt.edu
WWW	:	http://www.pitt.edu/∼druzdzel
Citizenship	:	U.S., Poland

SUMMARY:

Received M.Sc. Degrees in Computer Science (1985) and Electrical Engineering (1987) (both with distinction) from Delft University of Technology, and Ph.D. (1992) in Engineering and Public Policy from Carnegie Mellon University. Professor Emeritus in the School of Computing and Information, University of Pittsburgh. Professor in Faculty of Computer Science, Białystok University of Technology, Poland. Recipient of National Science Foundations CAREER award (1996-2000), University of Pittsburgh Survival Skills and Ethics Outstanding Mentor Award (1997), University of Pittsburgh Chancellor's Distinguished Teaching Award (2007) and two Fulbright Fellowships (2009–2010 and 2016–2017). Listed among 2% highest ranking scientists in their disciplines World-wide by Elsevier (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4). Obtained and managed jointly over $8.0M in research grants. Authored and co-authored almost 200 scientific articles. Supervised 15 doctorates. Member of many editorial boards and conference program committees. Founding partner of BayesFusion, LLC, a corporation developing decision-theoretic software. Consulting for major corporations and U.S. government.

RESEARCH INTERESTS AND GOALS:

Probabilistic and decision-theoretic methods in decision support systems. User interfaces to decision support systems. Interactive and mixed-initiative systems for support of strategic planning within organizations.

My research focuses on building decision support systems that are based on sound principles of probability theory, statistics, and econometrics. Building such systems rests usually on a careful combination of expert knowledge and data analytics. Decision-theoretic systems have a proven track record in enhancing human capabilities for decision making in complex situations involving uncertainty and multiple conflicting objectives. In addition to theoretical and algorithmic issues, a crucial element of such systems is their user interface, which assists human decision makers in framing their decision problems, capturing their knowledge in terms of models and also gaining insight into the results of the systems' reasoning.

I pride myself in making the results of my research useful and applicable in practice. I took part in commercialization of GeNIe, QGeNIe and SMILE$^{\text{☺}}$, all developed in my research laboratory, making them available free of charge for academic teaching and research. They belong currently to the most popular software for decision-theoretic methods in both academia and industry.

RESEARCH PRODUCTIVITY METRICS:

ORCID ID: 0000-0002-7598-2286
ResearcherID: B-5534-2013
Scopus: 6602688956
Google Scholar: http://scholar.google.com/citations?user=lRO8PX4AAAAJ
ResearchGate: https://www.researchgate.net/profile/Marek-Druzdzel
SemanticScholar: https://www.semanticscholar.org/author/Marek-J-Druzdzel/1716478
DBLP: https://dblp.org/pid/d/MarekJDruzdzel
Scopus: https://www.scopus.com/authid/detail.uri?authorId=6602688956
ORCID: https://orcid.org/0000-0002-7598-2286
Research.com: https://research.com/u/marek-j-druzdzel

Publications: 216,
Reported citations (Google Scholar): 8,162
H-index (Google Scholar): 47,
i10-index (Google Scholar): 103
Research Interest Score (ResearchGate): 3,032
Erdös Number (Microsoft Academic Search): 4
Einstein Number (Microsoft Academic Search): 4
Stiglitz Number (Microsoft Academic Search): 3
Listed among 2% highest ranking scientists in their fields (Ioannidis, John P.A. (2022), "September 2022 data-update for 'Updated science-wide author databases of standardized citation indicators'," Mendeley Data, V4, doi: 10.17632/btchxktzyw.4

ACADEMIC BACKGROUND:

June 2026 President of the Republic of Poland, Dr. Karol Nawrocki Warsaw, Poland
Title of Professor
The highest academic title in higher education and science, conferred directly by the President of the Republic of Poland.

June 2009 Polska Akademia Nauk, Instytut Podstaw Informatyki Warsaw, Poland
(Polish Academy of Sciences, Institute of Computer Science)
D.Sc. (habilitation) in Computer Science
Dissertation: *Stochastic Simulation and Search in Algorithms for Bayesian Networks*

Sept'88–Dec'92 Carnegie Mellon University Pittsburgh, Pennsylvania
Ph.D. in Engineering and Public Policy
Dissertation: *Probabilistic Reasoning in Decision Support Systems: From Computation to Common Sense*, Advisors: Max Henrion and Herbert A. Simon

Sept'85–Feb'87 Technische Universiteit Delft Delft, The Netherlands
(Delft University of Technology)
M.Sc. in Electrical Engineering (with distinction)
Thesis: *Current Trends in Computer Architecture and Their Relation to the LISP Programming Language*, Advisor: A.J. van de Goor

Sept'82–Nov'85 Technische Universiteit Delft Delft, The Netherlands
(Delft University of Technology)
M.Sc. in Computer Science (with distinction)
Thesis: *Implementation of the Memory Management Module of the UNIX System V Kernel on a MC68010 Based Single Board Computer*, Advisors: W.L. van der Poel and A.J. van de Goor

PROFESSIONAL APPOINTMENTS:

Professor Emeritus in the School of Computing and Information, University of Pittsburgh. Professor in the Faculty of Computer Science, Białystok University of Technology, Poland. Founding partner, BayesFusion, LLC.

June'15–present BayesFusion, LLC Pittsburgh, Pennsylvania
Founding partner

Mar'07–present Białystok University of Technology Białystok, Poland
Faculty of Computer Science
Professor (2019–), visiting professor (2007–2019)

Sep'93–present University of Pittsburgh Pittsburgh, Pennsylvania
School of Computing and Information
Professor emeritus (since 2019), full professor (2017–2019), associate professor (2000–2017), and assistant professor (1993–2000).

Sep'94–Oct'19	University of Pittsburgh Intelligent Systems Studies Program Professor	Pittsburgh, Pennsylvania
Mar'96–Mar'02	University of Pittsburgh Center for Biomedical Informatics Senior associate, core faculty, and co-director of the Medical Informatics Training Program	Pittsburgh, Pennsylvania
Feb'01–Dec'01	ReasonEdge Technologies, Pte., Ltd. Chief Technology Officer (on leave from the University of Pittsburgh)	Singapore
May'99–Aug'00	University of Alaska College of Business and Public Policy Adjunct professor	Anchorage, Alaska
Jan'98–May'99	Carnegie Mellon University H. John Heinz III School of Public Policy and Management Adjunct professor	Pittsburgh, Pennsylvania
Jun'93–Aug'93	Carnegie Mellon University Department of Philosophy Research associate	Pittsburgh, Pennsylvania
Feb'93–May'93	Institute for Decision Systems Research Research associate	Palo Alto, California
Feb'92–June'92	Rockwell International Science Center Part-time researcher	Palo Alto, California
Sept'88–Dec'91	Carnegie Mellon University Department of Engineering and Public Policy Graduate research assistant	Pittsburgh, Pennsylvania
Mar'87–Aug'88	IBM Thomas J. Watson Research Center Visiting scientist, Workstation Systems Department	Yorktown Heights, New York

TEACHING EXPERIENCE:

Taught a variety of undergraduate and graduate courses in Information Science, Intelligent Systems, and related disciplines at the University of Pittsburgh, Carnegie Mellon University, University of Alaska, Anchorage, and Białystok University of Technology, Białystok, Poland.

Special teaching focus on doctoral training and training for doing science. Member of the advisory board of the *Program in Survival Skills and Ethics*, University of Pittsburgh, that focuses on emerging scientists, such as doctoral students and junior faculty. Member of the university-wide *Advisory Committee for Faculty and Teaching Assistant/Teaching Fellow Development* and *Provost's Advisory Council on Instructional Excellence*. Taught special sessions for junior faculty and teaching assistants. Awarded the university-wide *1997 Outstanding Mentor Award* by the Survival Skills and Ethics Program, University of Pittsburgh. Recipient of the 2007 Chancellor's Distinguished Teaching Award, University of Pittsburgh.

Feb'04–present	Białystok University of Technology Faculty of Computer Science *Introduction to Decision Theory and Decision Analysis* (graduate, Fall 2023), *Research Design* (graduate, Spring 2021–2026), *Data Warehousing* (advanced undergraduate, Summer 2007, 2008), *Decision Analysis and Decision Support Systems* (advanced undergraduate, Fall 2009), *Fundamental Tools of a Scientist's Workbench* (graduate, Fall 2009, Spring 2012, 2015, 2017, 2022–2026), *Project Design* (undergraduate, Fall 2016, Spring 2017, Fall 2021), *Research Project Design* (graduate, Fall 2021–2025), *B.Sc. Thesis Seminar* (undergraduate, Spring 2017, Fall 2019, Spring 2022, Spring 2023), *M.Sc. Thesis Seminar* (graduate, Spring 2013–2015, 2020–2026), *Advanced Databases and Data Warehouses* (graduate, co-taught, Spring 2011–2026), *Bayesian Networks* (graduate, Spring 2019–2020, 2026), *Introduction to Doctoral Studies* (graduate, Spring 2018, 2019).	Białystok, Poland

Sept'93–Oct'19 University of Pittsburgh Pittsburgh, Pennsylvania
School of Computing and Information
Decision Analysis and Decision Support Systems (graduate, Spring 1995–2000, 2002–2009, 2011–2016, 2018, 2019), *Research Design* (graduate, Fall 1994–1996, 1998, Spring 2000, Fall 2003–2008, 2010–2012, Spring 2014–2016, 2018, 2019), *Introduction to Doctoral Program* (graduate, Fall 2007, 2008, 2011, 2013–2015, 2017, 2018), *Data Analytics* (graduate, Fall 2012, Spring 2013, Fall 2013, 2014, 2015, 2017, 2018, Spring 2019), *Knowledge Representation and the Semantic Web* (graduate, Spring 2011, 2012), *Human Factors* (graduate, Spring 2008), *Object Oriented Programming 1 for Information Science* (undergraduate, Spring 2007), *Data Structures and Algorithms* (graduate, Fall 1995), *Data Structures and Programming Techniques* (undergraduate, Fall 2002–2005, Spring 2003–2006), *Database Management* (graduate, Spring 1994),
Statistical Analysis of Data (undergraduate, Spring 1997), *Database Management Systems* (undergraduate, Fall 1994, Spring 2002, Spring 2009), *Programming Design and Software Tools* (undergraduate, Fall 1999), *File Processing* (undergraduate, Spring 1994 and 1995), *Information Communication and Coding Theory* (graduate, Fall 1993), *Research Seminar: Systems and Technology* (graduate, Spring 1996), *Research Seminar: Mathematics and Formal Foundations* (graduate, Fall 1998, Fall 2002, Fall 2006, Fall 2010).

June 2012 Aalto University Espoo, Finland
Department of Applied Mechanics, Marine Technology
Summer School on "Modeling and Decision Making Using Bayesian Statistics". Taught the following topics, with exercises, over the course of two full days: *Introduction to Bayesian Inference*, *Bayesian Networks*, *Building Bayesian Networks*, *Learning Bayesian Networks and Causal Discovery*, and *Decision Theory and Decision Analysis*.

March 2010 University of Warsaw Warsaw, Poland
Institute of Informatics
Probabilistic Graphical Models. A course for PhD students in computer science, organized by the University of Warsaw, with the purpose of broadening the choice of courses by invited courses given by top researchers from Poland and abroad. `http://phdopen.mimuw.edu.pl/`

Jan'98–2000 Carnegie Mellon University Pittsburgh, Pennsylvania
H. John Heinz III School of Public Policy and Management
Decision Support Systems for Public Managers (graduate, Spring 1998 and 1999).

May'99–2000 University of Alaska, Anchorage Anchorage, Alaska
College of Business and Public Policy
Object-oriented Programming (graduate, Summer 1999), *Decision Support and Expert Systems* (undergraduate, Summer 2000).

Dec'96–present University of Pittsburgh Pittsburgh, Pennsylvania
Member of the Advisory Board for the *Program in Survival Skills and Ethics*.

Aug'97 University of Pittsburgh Pittsburgh, Pennsylvania
The Center for Instructional Development and Distance Education
Conducted a session on *Designing a Syllabus* at the *1997 Welcome and Orientation for Incoming Teachers*.

Feb'97 University of Pittsburgh Pittsburgh, Pennsylvania
The Center for Instructional Development and Distance Education
Co-facilitator of a faculty development workshop on *Designing a Perfect Syllabus*.

Jan'90–May'90 Carnegie Mellon University Pittsburgh, Pennsylvania
Department of Engineering and Public Policy
Project manager for the interdisciplinary *Technology and Policy Project Course* offered to graduate students at the School of Urban and Public Affairs (currently H. John Heinz III School of Public Policy and Management) and undergraduate engineering students.

Sept'83–Feb'87 Technische Universiteit Delft Delft, The Netherlands
(Delft University of Technology)
Department of Mathematics and Computer Science
Teaching assistant for the courses *Introduction to Computer Science* offered to freshmen engineering students and *Data Structures and Algorithms II* offered to senior computer science students.

Guest lectures at the University of Pittsburgh: *Introduction to Information Science*, School of Information Sciences, *Introduction to Artificial Intelligence*, Intelligent Systems Studies Program and Computer Science Department, *Introduction to Medical Informatics*, Intelligent Systems Studies Program, *Probabilistic Methods for Computer-based Decision Support*, Medical Informatics Training Program.
Guest lectures at Carnegie Mellon University: *Graphs in Statistics*, Department of Statistics, *Decision Analysis*, *Analytics and Business Intelligence*, *Applied Data Science*, *Quantitative Methods in Policy Analysis*, Department of Engineering and Public Policy.
Guest lectures at other universities: *Data Mining*, Faculty of Computer Science, Białystok University of Technology.

DOCTORATES SUPERVISED:

- Marcin Koźniewski, *Self-Confidence Measures of a Decision Support System Based on Bayesian Networks*, School of Computing and Information, University of Pittsburgh, 11 April 2019
- Jidapa Kraisangka, *Application of Bayesian Networks to Risk Assessment*, School of Computing and Information, University of Pittsburgh, 10 April 2019
- Dmitriy Babichenko, *Designing Data-Driven Virtual Patients for Health Sciences Education*, School of Computing and Information, University of Pittsburgh, 21 September 2018
- Anna Łupińska-Dubicka, *Probabilistic Graphical Models of Time-Dependent Domains with Memory: Application to Monitoring Woman's Monthly Cycle*, Faculty of Computer Science, Białystok University of Technology, 11 September 2014
- Martijn de Jongh, *Bayesian Networks and the MapReduce Framework: Learning and Inference*, School of Information Sciences, University of Pittsburgh, 22 April 2014
- Parot Ratnapinda, *Theoretical and Practical Aspects of Decision Support Systems Based on the Principles of Query-Based Diagnostics*, School of Information Sciences, University of Pittsburgh, 18 April 2014
- Tomasz D. Łoboda (co-advised with Erik D. Reichle), *Study and Detection of Mindless Reading*, School of Information Sciences, University of Pittsburgh, 17 March 2014
- Peter Sutovsky (co-advised with Gregory C. Cooper), *Explaining Inference on a Population of Independent Agents Using Bayesian Networks*, School of Information Sciences, University of Pittsburgh, 29 July 2013
- Adam Zagórecki, *Local Probability Distributions in Bayesian Networks: Knowledge, Elicitation, and Inference* School of Information Sciences, University of Pittsburgh, 25 February 2010
- Mark Voortman, *Causal Discovery of Dynamic Systems*, School of Information Sciences, University of Pittsburgh, 3 December 2009
- Changhe Yuan, *Importance Sampling for Bayesian Networks: Principles, Algorithms, and Performance*, Intelligent Systems Program, University of Pittsburgh, 25 May 2006
- Haiqin Wang, *Building Bayesian Networks: Elicitation, Evaluation, and Learning*, Intelligent Systems Program, University of Pittsburgh, 6 December 2004
- Tsai-Ching Lu, *Construction and Utilization of Mechanism-based Causal Models*, Intelligent Systems Program, University of Pittsburgh, 1 December 2003
- Denver H. Dash, *Caveats for Causal Reasoning with Equilibrium Models*, Intelligent Systems Program, University of Pittsburgh, 18 March 2003

- Jian Cheng, *Efficient Stochastic Sampling Algorithms for Bayesian Networks*, School of Information Sciences, University of Pittsburgh, 12 December 2000

EXTERNAL PH.D. DISSERTATION REVIEWS:

- Darshana Abeyrathna Kuruge, *Novel Tsetlin Machine Mechanisms for Logic-based Regression and Classification with Support for Continuous Input, Clause Weighting, Confidence Assessment, Deterministic Learning, and Convolution*, Faculty of Engineering and Science, University of Agder, Grimstad, Norway, April 2022
- Sondre Glimsdal, *Towards Thompson Sampling for Complex Bayesian Reasoning*, Faculty of Engineering and Science, University of Agder, Grimstad, Norway, May 2020
- Marcos Luiz de Paula Bueno, *Unraveling Temporal Processes using Probabilistic Graphical Models*, Leiden University, Leiden, The Netherlands, February 2020
- Maria Hänninen, *Bayesian Network Modeling of Potential Patterns in Maritime Safety Performance*, School of Engineering, Department of Applied Mathematics, Aalto University, Aalto, Finland, December 2014
- Maarten van der Heijden, *Temporal Probabilistic Models for Disease Management*, Radboud Universiteit Nijmegen, Nijmegen, The Netherlands, October 2013
- Tomasz Ignac, *Tree-Based Computations in Probabilistic Models*, Faculty of Science, Technology, and Communication (FSTC), University of Luxembourg, Luxembourg, July 2010
- Wang Yi, *Latent Tree Models for Multivariate Density Estimation: Algorithms and Applications*, Department of Computer Science and Engineering, Hong Kong University of Science and Technology, Hong Kong, August 2009
- Cao Yi, *Dealing with Missing Data in DNA Microarray*, Department of Industrial and Systems Engineering, National University of Singapore, Singapore, June 2009
- Rohit Joshi, *Context-Sensitive Networks: A Probabilistic Context Language for Adaptive Reasoning*, Department of Computer Science, National University of Singapore, Singapore, May 2009
- Jens Dalgaard Nielsen, *On Unsupervised Learning of Probabilistic Graphical Models*, Department of Computer Science, Aalborg University, Aalborg, Denmark, May 2007
- Rita Sharma, *Probabilistic Inference with Large Discrete Domains*, Department of Computer Science, University of British Columbia, Vancouver, British Columbia, Canada, October 2006
- Yifeng Zeng, *Probabilistic Modeling And Reasoning In Multiagent Decision Systems*, Department of Industrial and Systems Engineering, National University of Singapore, Singapore, January 2006
- Pek Peng Kiat, *Decision-Theoretic Intelligent Tutoring Systems*, Department of Industrial and Systems Engineering, National University of Singapore, Singapore, May 2004
- Peter P. Sember, *Explaining the Unexplainable*, Department of Computer Science, Monash University, Clayton, Victoria, Australia, March 1996

PH.D. DISSERTATION COMMITTEE MEMBERSHIP:

- Yun Huang, *Learner Modeling for Integration Skills in Programming*, Intelligent Systems Program, University of Pittsburgh, 5 July 2018
- Md Monir H. Sharker, *An Adaptive Framework for Real-Time Spatiotemporal Big Data Analytics*, School of Information Sciences, University of Pittsburgh, 14 August 2017
- Nur Orak, *Statistical Methods for Evaluating Exposure-Health Relationships*, Department of Civil and Environmental Engineering, Carnegie Mellon University, 15 August 2016

- Evgeny Karataev, *Advanced Distributed Data Integration Infrastructure and Research Data Management Portal*, School of Information Sciences, University of Pittsburgh, 5 May 2016
- Matthias Grabmair, *Modeling Purposive Legal Argumentation and Case Outcome Prediction Using Argument Schemes in the Value Judgment Formalism*, Intelligent Systems Program, University of Pittsburgh, 1 April 2016
- Carlos A. Sanchez, *An Analytics Based Architecture and Methodologies for Collaborative Timetabling in Higher Education*, School of Information Sciences, University of Pittsburgh, 2 December 2015
- Ying-Feng Hsu, *Efficient Information Processing Architecture for Early Warning Systems*, School of Information Sciences, University of Pittsburgh, 13 May 2015
- Natasha Loghmanpour, *Designing a Clinical Decision Support System for End-Stage Heart Failure Patients*, Department of Biomedical Engineering, Carnegie Mellon University, 29 April 2015
- Jungwon Yeo, *Collective Action Systems in Immigration and Multiculturalism Policy and Practice: Complexity and Dynamics of Inter-Organizational Networks*, Graduate School of Public and International Affairs, University of Pittsburgh, 20 April 2015
- Pei-Ju Julian Lee, *Efficient Information Integration System for Temporal and Spatial Data*, School of Information Sciences, University of Pittsburgh, 17 March 2015
- Liu Cui, *Risk And Decision Analysis of Spectrum Usage*, School of Information Sciences, Telecommunications and Networking Program, University of Pittsburgh, 4 November 2014
- Charles E. Grindle, *Identifying Factors Influencing Senior Leader Technology Readiness*, School of Information Sciences, University of Pittsburgh, 24 September 2014
- Monsak Socharoentum, *Multi-Modal Transportation and Multi-Criteria Walking (MMT-MCW) for Wayfinding and Navigation Services*, School of Information Sciences, University of Pittsburgh, 22 July 2014
- Yihuang Kang, *Probabilistic Process Monitoring in Process-Aware Information Systems*, School of Information Sciences, University of Pittsburgh, 9 June 2014
- Andrii Cherniak, *Exploring Behavioral Patterns in Complex Adaptive Systems*, School of Information Sciences, University of Pittsburgh, 22 April 2014
- Saeed Amizadeh, *Non-Parametric Graph-based Methods For Large Scale Problems*, Intelligent Systems Program, University of Pittsburgh, 28 August 2013
- Yajuan Wang, *Decision Guidance System for Personalized Mechanical Circulatory Assistance*, Department of Biomedical Engineering, Carnegie Mellon University, 9 December 2011
- Divyasheel Sharma, *Efficient Information Access in Data Intensive Sensor Networks*, School of Information Sciences, University of Pittsburgh, 14 October 2010
- Min Chi, *Do Micro-Level Tutorial Decisions Matter: An Evaluation of Applying Reinforcement Learning to Induce Pedagogical Tutorial Tactics*, Intelligent Systems Program, University of Pittsburgh, 20 November 2009
- Yao Zhang, *Statistical Treatment of Gravitational Clustering Algorithm*, Department of Statistics, University of Pittsburgh, 19 November 2009
- Yanna Shen, *Bayesian Modeling of Anomalies Due to Known and Unknown Causes*, Intelligent Systems Program, University of Pittsburgh, 23 April 2009
- Maria Harrington, *Simulated Ecological Environments for Education: A Tripartite Model Framework of HCI Design Parameters for Situational Learning in Virtual Environments*, School of Information Sciences, University of Pittsburgh, 17 July 2008
- Yang Xu, *Token-Based Approach for Scalable Team Coordination*, School of Information Sciences, University of Pittsburgh, 12 December 2007

- Shyam Visweswaran, *Learning Patient-Specific Models from Clinical Data*, Intelligent Systems Program, University of Pittsburgh, 25 September 2007
- Branislav Kveton, *Planning in Hybrid Structured Stochastic Domains*, Intelligent Systems Program, University of Pittsburgh, 7 September 2006
- Robert Charles Murray, *An Evaluation of Decision-Theoretic Tutorial Action Selection*, Intelligent Systems Program, University of Pittsburgh, 15 July 2005
- Siripun Sanguansintukul, *A Neural Network Approach to Treatment Optimization*, School of Information Sciences, University of Pittsburgh, 5 September 2003
- Saadullah Tareen, *A Study of the Impacts of Pricing and User Budget Constraints on User and Network Behavior in Packet Networks*, School of Information Sciences, University of Pittsburgh, 29 June 2001
- Cristina Conati, *An Intelligent Computer Tutor to Guide Self-Explanation while Learning from Examples*, Intelligent Systems Program, University of Pittsburgh, 9 August 1999
- Stefano Monti, *Learning Hybrid Bayesian networks from data*, Intelligent Systems Program, University of Pittsburgh, 9 July 1999
- Nilufer Onder, *Contingency Selection in Plan Generation*, Department of Computer Science, University of Pittsburgh, 9 April 1999
- Adel Al-Rumaih, *A Spare Capacity Planning Methodology for Wide Area Survivable Networks*, School of Information Sciences, University of Pittsburgh, 13 January 1999
- Jin Zhang, *Visual Information Retrieval Environments*, School of Information Sciences, University of Pittsburgh, 1999
- Judith Molka-Danielsen, *The Examination of Strategic Interaction in One Local Access Telephony Market, the Effects on Expected Price for Access and Universal Access*, School of Information Sciences, University of Pittsburgh, March 1998
- Bambang Parmanto, *Agitating Dissent: Methods for Improving Performance of a Neural Network Committee by Error Decorrelation*, School of Information Sciences, University of Pittsburgh, 8 December 1995

M.Sc. THESES SUPERVISED:

- Bartłomiej Nerko, *Theoretical and Practical Aspects of Protecting Software from Illegal Copying*, Białystok University of Technology, Białystok, Poland, 24 October 2017
- Wojciech Jaworowski, *Theoretical and Practical Aspects of Bayesian Networks Editors Based on the Method of CSCW*, Białystok University of Technology, Białystok, Poland, 5 July 2016
- Agnieszka Sokołowska & Krzysztof Goljasz, *A System Supporting Distribution of Traffic Police Patrols in Podlaskie Wojevodship* (in Polish), Białystok University of Technology, Białystok, Poland, 12 June 2014
- Marcin Koźniewski, *Self-awareness of an expert system based on Bayesian networks* (in Polish), Białystok University of Technology, Białystok, Poland, 10 July 2012
- Emil Murawski, *Feature Selection in Learning Bayesian Network Structure from Data* (in Polish), Białystok University of Technology, Białystok, Poland, 10 July 2012
- Krzysztof Nowak, *Learning of Canonical Models from Data*, Białystok University of Technology, Białystok, Poland, 10 July 2012

- Katarzyna Woronowicz, *Extension of DeMorgan Gates from Binary to Multiple States* (in Polish), Białystok University of Technology, Białystok, Poland, 10 July 2012
- Cezary Bojko, *Object-Oriented Bayesian Networks* (in Polish), Białystok University of Technology, Białystok, Poland, 5 July 2012
- Pawel Łukaszuk, *Implementation and Practical Evaluation of DeMorgan Gates in Bayesian Networks* (in Polish), Białystok University of Technology, Białystok, Poland, 5 July 2012
- Paulina Gęsiewska, *Risk Profiles* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Tomasz Jegorow, *Soft Evidence* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Łukasz Kakareko, *An Environment for Testing Bayesian Network Models* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Marcin Kamiński, *Discretization of Variables in Bayesian Networks* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Marcin Łępicki, *Techniques for Transforming Bayesian Network Structure with Application to Knowledge Engineering* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Maciej Osakowicz, *Dealing with Missing Data in Bayesian Networks* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Piotr Rogowski, *Probabilistic Methods for Intrusion Defense in Wireless Networks* (in Polish), Białystok University of Technology, Białystok, Poland, 8 July 2010
- Martijn de Jongh, *Implementing and Improving a Method for Non-Invasive Elicitation of Probabilities for Bayesian Networks*, Delft University of Technology, The Netherlands, 15 February 2007
- Joris Hulst, *Modeling Physiological Processes with Dynamic Bayesian Networks*, Delft University of Technology, The Netherlands, 29 August 2006
- Joost Koiter, *Visualizing Inference in Bayesian Networks*, Delft University of Technology, The Netherlands, 6 July 2006
- Paul Maaskant, *A Causal Model for Qualitative Reasoning*, Delft University of Technology, The Netherlands, 3 July 2006
- Xiao Xun Sun, *Dynamic Weighting A^* Search-based MAP Algorithm for Bayesian Networks*, Delft University of Technology, The Netherlands, 8 July 2005
- Pieter Kraaijeveld, *GeNIeRate: An Interactive Generator of Diagnostic Bayesian Network Models*, Delft University of Technology, The Netherlands, 23 June 2005
- Mark Voortman, *Using Cases To Refine Bayesian Networks*, Delft University of Technology, The Netherlands, July 2005
- Samuel Gerssen, *Bayesian Networks in Credit Rating*, Delft University of Technology, The Netherlands, 12 March 2004
- Hanyang Chen, *Interactive Data Exploration for Bayesian Network Learning*, School of Information Sciences, University of Pittsburgh, 5 December 2003
- Changhe Yuan, *An Importance Sampling Algorithm Based on Evidence Pre-propagation*, Intelligent Systems Program, University of Pittsburgh, 10 April 2003
- Randy Jagt, *Support for Multiple Cause Diagnosis with Bayesian Networks*, Delft University of Technology, The Netherlands, 4 October 2002
- Daniel Garcia-Sanchez, *An Anytime Exhaustive Algorithm for Solving Influence Diagrams*, School of Information Sciences, University of Pittsburgh, 28 July 2000

- Hikmet Umar, *Decision-Making under Uncertainty in Clinical Dentistry: A Probabilistic Approach to a Dental Clinical Advisory System*, School of Information Sciences, University of Pittsburgh, 27 June 2000
- Haiqin Wang, *Graphical Elicitation of Numerical Parameters in a Development Environment for Probabilistic Models*, Intelligent Systems Program, University of Pittsburgh, 6 December 1999
- Tsai-Ching Lu, *ImaGeNIe – Interactive Model Authoring in GeNIe*, Intelligent Systems Program, University of Pittsburgh, 10 December 1999
- Carl P.R. Thijssen, *SmileX☺: An ActiveX Decision-Analytic Reasoning Engine and Its Application to Evaluation of Credit Applicants*, Delft University of Technology, The Netherlands, 25 August 1999
- Yan Lin, *Computational Advantages of Relevance Reasoning in Bayesian Belief Networks*, Intelligent Systems Program, University of Pittsburgh, December 1997
- Hans van Leijen, *Reversible Causal Mechanisms in Bayesian Belief Networks*, Utrecht University, The Netherlands, November 1997
- Jeroen Bogers, *Supporting the Change in Structure in a Decision Support System Based on Structural Equations*, Delft University of Technology, The Netherlands, August 1997

M.Sc. THESIS COMMITTEE MEMBERSHIP:

- Saeed Amizadeh, *Latent Variable Model for Learning in Pairwise Markov Networks*, Intelligent Systems Program, University of Pittsburgh, 24 February 2010
- An-Kwok Ian Wong, *Bayesian Combinatorial Partitioning For Detecting Interactions Among Genetic Variants*, Intelligent Systems Program, University of Pittsburgh, 23 April 2009
- Collin Lynch, *What Do Argument Diagrams Tell Us About Students' Aptitude or Experience? A Statistical Analysis in an Ill-Defined Domain*, Intelligent Systems Program, University of Pittsburgh, 4 December 2008
- Yanna Shen, *Estimating Disease Outbreak Detection When a Detection Algorithm and Traditional Clinician Surveillance Are Operating in Parallel*, Intelligent Systems Program, University of Pittsburgh, 21 March 2006
- Linda Santelices, *Clinical Decision Support System for Optimal VAD Weaning*, Department of Bioengineering, University of Pittsburgh, 6 July 2005
- Shyam Visweswaran *Detecting Adverse Drug Events in Discharge Summaries Using Variations on the Simple Bayes Model*, Intelligent Systems Program, University of Pittsburgh, 22 April 2004
- Branislav Kveton, *Linear Program Approximations for Factored Continuous-State Markov Decision Processes*, Intelligent Systems Program, University of Pittsburgh, 24 February 2004
- Wei Wang, *An Efficient Bayesian Method for Biological Pathway Discovery from High-Throughput Experimental Data*, Intelligent Systems Program, University of Pittsburgh, 18 February 2004
- Sailesh Ramakrishnan, *Simulation Based Intelligent Reminding*, Intelligent Systems Program, University of Pittsburgh, 26 June 2000
- Chas Murray, *A Dynamic, Decision-Theoretic Model of Tutorial Action Selection*, Intelligent Systems Program, University of Pittsburgh, 6 May 1999
- William Hogan, *Explanation in Clinical Event Monitoring*, Intelligent Systems Program, University of Pittsburgh, 28 March 1999

CURRENT GRADUATE STUDENTS:

Kasper Seweryn (CS, BUT, Ph.D. dissertation advisor), Learning Bayesian networks and causal discovery.

OTHER PROFESSIONAL ACTIVITIES:

Editorial appointments:

Editorial Board member, *International Journal of Decision Support Systems (IJDSS)*, 2013–present.
Editorial Board member, *International Journal On Advances in Intelligent Systems*, 2011–present.
Editorial Board member, *Artificial Intelligence Research (AIR)*, 2011–present.
Editorial Board member, *International Journal of Information Technology and Decision Making (IT&DM)*.
Editorial Board member, *Far East Journal of Experimental and Theoretical Artificial Intelligence*, 2007–present.
Scientific Board member, *Advances in Computer Science Research* (Until 2013 *Zeszyty Naukowe Politechniki Białostockiej. Informatyka*), 2009–present.
Editorial Board member, *The Open Artificial Intelligence Journal*, 2007–2015.
Editorial Board member, *The Open Artificial Intelligence Reviews*, 2007–2015.
Editorial Board member, *International Journal of Intelligent Systems and Applications (IJISA)*, 2009–2015.
Editorial Board member, *Journal of Artificial Intelligence Research (JAIR)*, 2006–2009.
Editorial Board member, *Intelligent Decision Technologies (IDT)*, 2006–2009.
Member of the Scientific Review Committee of e-book *Advanced Knowledge Based Systems: Models, Applications & Research Trends*.
Editorial Committee member, *Decision and Reasoning under Uncertainty* area of the *Electronic Transactions on Artificial Intelligence (ETAI)*.
Editorial Board member (software editor), *DAWeb* (A WWW site for the INFORMS Decision Analysis Society).
Guest co-editor, *IEEE Transactions on Knowledge and Data Engineering*, special issue on building probabilistic models.
Charter member of the working group for the development of the Bayesian Network Interchange Format.
Organizer and co-chair, 2005 AAAI Spring Symposium on *Challenges to Decision Support in a Changing World*.
Organizer and co-chair, Workshop on *Building Probabilistic Models: Where Do the Numbers Come From?* at the Fourteenth International Joint Conference on Artificial Intelligence (IJCAI–95).
Adjunct researcher, Centro de Investigación sobre Sistemas Inteligentes de Ayuda a la Decisión (CISIAD) (Research Center on Intelligent Decision-Support Systems).

Program committees:

The 20th International Conference of the Italian Association for Artificial Intelligence (AIxIA), Workshop *Towards Smarter Health Care: Can Artificial Intelligence Help?*, 29th November 2021.
Eighteenth, Twenty First, Twenty Second, Twenty Third, and Twenty Seventh International Joint Conference on Artificial Intelligence (IJCAI–2003, –2009, –2011 (senior PC member), –2013, –2018 (senior PC member)).
Tenth through Twenty Third, Twenty Fifth Annual Conferences on Uncertainty in Artificial Intelligence (UAI–1994 through –2007, –2009 (senior PC member), – 2011, –2013, –2014, and –2015).
First Workshop on Sensitivity Analysis and Robustness in Probabilistic Graphical Models (SARPGM-15), part of the 24th International Joint Conference on Artificial Intelligence (IJCAI-15), Buenos Aires, Argentina, 25 July – 1 August 2015.
Thirteenth, Seventeenth, Twenty First, Twenty Third, Twenty Fifth, Twenty Sixth, Twenty Ninth, and Thirtieth National Conferences on Artificial Intelligence (AAAI–96, –2000, –2006, –2008, –2011, –2012, –2015, and –2016).
Second through Eighth European Workshops on *Probabilistic Graphical Models*, (PGM–2004 through –2024).
International Conference on Pattern Recognition Applications and Methods (ICPRAM–2016), Rome, Italy, 24–26 February 2016.
International Conference on Agents and Artificial Intelligence, Rome, Italy, 24–26 February 2016.
Modelling and Simulation for Autonomous Systems Workshop (MESAS–16), Rome, Italy, 15–16 June 2016.
Advances in Data Science: International Workshop and Networking Event, Hołny Mejera, Poland, 6–8 May 2015.
Uncertain Reasoning in Artificial Intelligence track of the Ninth, Tenth, Twelfth through Fifteenth, Eighteenth through Twenty Fourth International Florida Artificial Intelligence Research Society Conferences (FLAIRS 1996, 1997, 1999–2002, 2005–2014).
International Symposium on Artificial Intelligence and Mathematics (ISAIM 2012, 2014).

International Conference on Brain Informatics and Health (BIH'14), Warsaw, Poland, 11–14 August 2014.
Fourth through Ninth Annual Workshops on Bayesian Modeling Applications, Special themes *Bayesian Models Meet Cognition* (2006), *Model Views* (2007), *How biased are our numbers?* (2008), *Applications* (2009), *Knowledge Engineering* (2011), *Big Data Meet Complex Models* (2013), *General* (2014), *Big Data* (2015)
Advisory chair to The Fifth International Conference on Future Computational Technologies and Applications (FUTURE COMPUTING 2013).
13th Ibero-American Conference on Artificial Intelligence (IBERAMIA 2012).
International Workshop on Advances in Business ICT (ABICT–2010, –2011, –2012). Part of the *Federated Conference on Computer Science and Information Systems (FedCSIS)*.
Twenty Fourth Canadian Conference on Artificial Intelligence (AI–2011).
Eight through Eleventh European Conferences on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2005–2011).
Workshop on Probabilistic Problem Solving in BioMedicine (ProBioMed'11), in conjunction with the *Thirteenth Conference on Artificial Intelligence in Medicine (AIME-2011)*, Bled, Slovenia, 2 July 2011.
The Seventh International Conference on Autonomic and Autonomous Systems (ICAS–2011).
Advisory Chair to Second and Third International Conferences on Future Computational Technologies and Applications (Future Computing 2010, 2011), Lisbon, Portugal, 21–26 November 2010.
AAAI–2008, –2010 and –2011 Special Track on New Scientific and Technical Advances in Research (Nectar).
III National Conference on Technologies for Data Processing (KKNTPD–2010), Poznan, Poland, 21–23 June 2010.
First KES International Symposium on Intelligent Decision Technologies (IDT'09), Himeji, Japan, 23-25 April 2009.
International Conference on Principles of Information Technology and Applications (PITA–2007, –2008, –2009). PITA is a sub-conference of the International Multiconference on Computer Science and Information Technology (IMCSIT).
International Workshop on Business Intelligence, part of the International Multiconference on Computer Science and Information Technology (IMCSIT–09), Mrągowo, Poland, 12–14 October 2009.
Twentieth International Conference on Database and Expert Systems Applications (DEXA–2009, 2010).
First International Conference on Future Computational Technologies and Applications (Future Computing 2009), Athens, Greece, 15–20 November 2009.
First European Conference on Intelligence and Security Informatics (EuroISI 2008), Copenhagen, Denmark, 3–5 December 2008.
AAAI-08 Nectar Track, Chicago, IL, 13–17 July 2008.
Eighteenth European Conference on Machine Learning (ECML-07) and the Eleventh European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD–07).
International Conference on Antennas, Radar and Wave Propagation (ARP–2007), Montreal (Canada), 30 May–1 June 2007.
1st International Symposium on *Advances in Artificial Intelligence and Applications* (AAIA'2006), held in conjunction with the *First International Multiconference on Computer Science and Information Systems*, Wisła, Poland, 6–10 November 2006.
IEEE International Conference on Information Reuse and Integration (IEEE-IRI'06), Waikoloa, Hawaii, 16-18 September 2006.
1st International Symposium of Web Intelligence and Security (WIS), A member conference of the 8th Joint Conference on Information Science (JCIS 2005), Salt Lake City, Utah, July 21-26, 2005.
Workshop on *Qualitative and Model-based Reasoning in Biomedicine*, European Conference on Artificial Intelligence in Medicine (AIME–03), Protaras, Cyprus, October 2003.
AAAI/KDD/UAI–2002 joint workshop on *Real-Time Decision Support and Diagnosis Systems*, Edmonton, Alberta, Canada, July 2002.
Workshop on *Bayesian Models in Medicine*, European Conference on Artificial Intelligence in Medicine (AIME–01), Cascais, Portugal, July 2001.
Using Uncertainty within Computation, AAAI 2001 Fall Symposium Series, North Falmouth, MA, November 2001.
World Multiconference on Systemics, Cybernetics and Informatics (SCI–98 through –2001).

International Symposium on Adaptive Systems (ISAS–2001), organized in the context of the CIMAF–2001 conference (Institute of Cybernetics, Mathematics and Physics, Center of Mathematics and Theoretical Physics), Havana, Cuba.

Conference session chairing:

Closing Session, UAI 15th Bayesian Modelling Applications Workshop, http://abnms.org/uai2021-apps-workshop/, online, July 30th, 2021.
Mathematics in Data Science, 8th Podlasie Conference on Mathematics, Bialystok, Poland, December 5–8, 2019.
Inference II, Ninth International Conference on Probabilistic Graphical Models (PGM), Prague, Czech Republic, September 11–14, 2018.
Dynamic Models I, Eighth International Conference on Probabilistic Graphical Models (PGM), Lugano, Switzerland, 6–9 September 2016.
Session 4, 2nd Workshop on Advances in Data Science: International Workshop and Networking Event, Hołny Mejera, Poland, 11–14 May 2016.
Session 6, Advances in Data Science: International Workshop and Networking Event, Hołny Mejera, Poland, 6–8 May 2015.
Session 8: Analysis, Seventh European Workshop on Probabilistic Graphical Models (PGM–14), Utrecht, The Netherlands, September 2014.
Bioinformatics, Biometrics and Medical Applications 2, *13th International Conference on Artificial Intelligence and Soft Computing*, Zakopane, Poland, June 1–5, 2014.
Clinical Reasoning, *Workshop on Foundations of Knowledge Representation and Reasoning in Biomedicine*, Leiden, The Netherlands, 29 Oct–2 Nov 2012.
Plenary session 8: Learning III, Sixth European Workshop on Probabilistic Graphical Models (PGM–12), Granada, Spain, September 2012.
System Dependability and Performance Evaluation, *International Conference on Principles of Information Technology and Applications (PITA–09), part of the International Multiconference on Computer Science and Information Technology (IMCSIT–2009)*, Mrągowo, Poland, October 2009.
Session 1.2, *The Eight Workshop on Uncertainty Processing (WUPES–09)*, Liblice, Czech Republic, September 2009.
Knowledge Discovery, *Seventeenth International Conference on Intelligent Information Systems*, Kraków, Poland, June 2009.
Parameter Estimation, Fourth European Workshop on Probabilistic Graphical Models (PGM–08), Hirsthals, Denmark, September 2008.
Probability Elicitation and Bias, 2008 Bayesian Modelling Applications Workshop, Special Theme: How Biased Are Our Numbers?, Part of the Annual Conference on Uncertainty in Artificial Intelligence (UAI–2008), Helsinki, Finland, July 2008.
Rough Sets and Other Methods of Machine Learning, *Sixteenth International Conference on Intelligent Information Systems*, Zakopane, Poland, June 2008.
Learning I, Third European Workshop on *Probabilistic Graphical Models*, (PGM–06), Prague, Czech Republic, September 2006.
Probabilistic Reasoning, Second European Workshop on *Probabilistic Graphical Models*, (PGM–04), Leiden, The Netherlands, October 2004.
Plenary Session 6: Foundations, the Sixteenth Annual Conference on Uncertainty in Artificial Intelligence (UAI–2000).
Learning 5, the Sixteenth National Conference on Artificial Intelligence (AAAI–99).
Time, Persistence, and Causality, the Twelfth Annual Conference on Uncertainty in Artificial Intelligence (UAI–96).
Artificial Intelligence, Spring 1996 Meeting of the Institute for Operations Research and the Management Sciences (INFORMS), Washington, D.C.
Action and Causality, the Tenth Annual Conference on Uncertainty in Artificial Intelligence (UAI–94).

Panels:

Panel on the *Future of Risk-based Decision-Making*, Eleventh Annual Conference of the Australasian Bayesian Network Modelling Society (ABNMS2019), Wellington, New Zealand, 13–14 November 2019.
Round-table panel on *Probabilistic graphical models, software tools, and their applications to real-world problems*, Eighth International Conference on Probabilistic Graphical Models (PGM), Lugano, Switzerland, 6–9 September 2016.
Faculty Panel on "Managing Job Interviews," Women in Information Sciences (WIS), School of Information Sciences, University of Pittsburgh, Pittsburgh, February 2015
Faculty Panel on "Perspectives on Career Preparation for PhD students," School of Information Sciences, University of Pittsburgh, Pittsburgh, February 2013
Faculty Panel on "Job Search," School of Information Sciences, University of Pittsburgh, Pittsburgh, April 2012
Polish–U.S. Academic Partnership Programs: State of the Art and Perspectives, *International Education Week, Perspectives in the Polish–U.S. Academic Exchanges*, Warsaw, Poland, November 2009.
Bringing Problems and Methodologies Together, AAAI Spring Symposium Series, *Challenges to Decision Support in a Changing World*, Stanford, CA, March 2005.
Search and Learning in Stochastic Domains, AAAI Spring Symposium Series, *Search Strategy under Uncertain and Incomplete Information*, Stanford, CA, March 1999.
Incremental Elicitation and Model Construction, AAAI Spring Symposium Series, *Interactive and Mixed-initiative Decision-theoretic Systems*, Stanford, CA, March 1998.
Discussant in the AAAI–94 Fall Symposium Series, *Relevance*.
Impact on Uncertainty in AI Methods and Techniques, workshop *Putting Qualitative Probabilities to Work*, sponsored by the Rockwell International Science Center, San Francisco, November 1993.

Reviewing:

Funding agencies: National Science Foundation's Interactive Systems Program, Knowledge Models and Cognitive Systems Program, Division of Design, Manufacture, and Industrial Innovation (ENG/DMII), and Decision, Risk, and Management Science Program, National Aeronautics and Space Administration (NASA), Air Force Office for Scientific Research (AFOSR), The Netherlands Computer Science Research Foundation (SION), Israel Science Foundation (ISF), Fundacja na rzecz Nauki Polskiej (Polish Science Foundation), Narodowe Centrum Badań i Rozwoju (NCBiR) (National Center for Research and Development, Poland) Research Grants Council, Hong Kong, China.
Journals: *Artificial Intelligence*, *Cognitive Science*, *Demonstratio Mathematica*, *European Journal of Operations Research*, *Entropy*, *Fundamenta Informaticæ*, *IEEE Intelligent Systems*, *IEEE Transactions on Knowledge and Data Engineering*, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *IEEE Transactions on Systems, Man, and Cybernetics*, *Informatica*, *International Journal of Pattern Recognition and Artificial Intelligence*, *Journal of the Association for Computing Machinery*, *Journal of Artificial Intelligence Research*, *Journal of Experimental and Theoretical Artificial Intelligence*, *Journal of Intelligent Information Systems*, *Journal of Machine Learning Research*, *Journal of Network and Systems Management*, *Machine Learning*, *Mathematical and Computer Modeling*, *Medical Sciences*, *Nature Research*, *Risk Analysis*.
Publishers: Prentice Hall, Prentice Hall/Pearson Education, Kluwer Academic Publishers, Chapman & Hall Publishers, Springer Verlag, Routledge Publishing (Taylor & Francis), Scott Jones Publishers, Inc., American Society of Civil Engineers (ASCE) Press.
Other: United States Geological Survey, INFORMS Society for Decision Analysis student paper competition.

HONORS:

2016–2017 J. William Fulbright Fellow.
Distinguished Fellow of the Collegium of Eminent Scientists, Kosciuszko Foundation (since 2015).
2009–2010 J. William Fulbright Fellow.
2010 Mentor of an All-Poland finals team in the Imagine Cup 2010 competition (one of the top 10 teams).
2007 University of Pittsburgh Chancellor's Distinguished Teaching Award. The highest honor received for teaching excellence at the University of Pittsburgh. Awarded annually to typically 4-5 faculty university-wide out of over 5,000 faculty body.

Crystal Cube Prize of the Academic Society for Computer Systems and Information Technologies, International Conference on Computer Systems and Technologies – CompSysTech–07, Rousse, Bulgaria, 14–15 June 2007, for the paper with Martinus de Jongh and Leon Rothkrantz "Implementing and Improving a Method for Non-Invasive Elicitation of Probabilities for Bayesian Networks."
2006 Catherine Ofiesh Orner Award (with Adam Zagorecki and Mark Voortman) for the best scholarly paper in Information Science submitted by a SIS student and co-authored by a SIS faculty member.
2005 Honorable Mention in the *2005 IJCAI–JAIR Best Paper Prize* for the paper with Jian Cheng "AIS–BN: An adaptive importance sampling algorithm for evidential reasoning in large Bayesian networks." The IJCAI-JAIR Best Paper Prize is awarded to an outstanding paper published in JAIR in the preceding five calendar years. For the 2005 competition, papers published between 2000 and 2005 were eligible.
2004 Robert R. Korfhage award (with Adam Zagorecki), awarded school-wide for the best paper co-authored between a student and a faculty member.
2003 Robert R. Korfhage award (with Adam Zagorecki), awarded school-wide for the best paper co-authored between a student and a faculty member.
National Science Foundation's Faculty Early Career Development (CAREER) award (1996–2000).
2000 Robert R. Korfhage award (with Jian Cheng), awarded school-wide for the best paper co-authored between a student and a faculty member.
1999 Robert R. Korfhage award (with Jian Cheng), awarded school-wide for the best paper co-authored between a student and a faculty member.
1997 Outstanding Mentor Award, awarded (university-wide) by the Survival Skills and Ethics Program, University of Pittsburgh.
Best paper prize (with Cristina Conati, Abigail Gertner and Kurt VanLehn), *Sixth International Conference on User Modeling (UM–97)*, 1997.
Sigma Xi, The Scientific Research Society, lifetime member, full member since 1994.
The Institute of Electrical and Electronic Engineers (IEEE), lifetime member, senior member since 2005.
Listed in Marquis *Who's Who in the East*, *Who's Who in America*, *Who's Who in American Education*, *Who's Who in the World*, *Who's Who in Medicine and Healthcare Who is Who in Science & Engineering*, and *Who's Who in the Media and Communications*.
M.S. degree in Electrical Engineering with distinction (1987).
M.S. degree in Computer Science with distinction (1985).
Finalist in Poland's 1976 Physics Olympiad (top 80 of all high school students).

RESEARCH GRANTS:

Over $8.0M in research grants since 1993.

National Institute of Health, National Heart, Lung and Blood Institute (NHLBI), *PHORA: A Clinical Decision Support Tool for Patients with Pulmonary Arterial Hypertension*, 2017–2021 (four years), total amount $2.7M, Grant Number 1R01HL134673-01 (co-investigator with Dr. Raymond L. Benza, Allegheny General Hospital of Pittsburgh).
United States Department of Defense (DOD), *Utilizing Clinical Metadata to Predict High-cost Complications and Treatment Response in Inflammatory Bowel Disease: Development of Clinical Decision Support Tools*, 2017–2021 (four years), Grant Number W81XWH-17-1-0556 (co-investigator with Dr. David Binion, University of Pittsburgh Medical Center).
National Institute of Health, National Heart, Lung and Blood Institute (NHLBI), *Dynamic Multichain Graphical Models for the Analysis of Childhood Obesity Data*, 2009–2014 (five years), total amount $1.8M. (co-investigator with Dr. Edward Ip, Department of Biostatistical Sciences, Wake Forest University School of Medicine (WFUSM)).
Defense Advanced Research Projects Agency (DARPA), *A Cloud Library for Directed Graphical Models*, DARPA I2O XDATA Program, administered through Air Force Research Laboratory contract FA8750-12-C-0332, 2012–2013 (one year), Partnership with Boeing Co., $320,051 University of Pittsburgh part.
Air Force Office of Scientific Research (AFOSR), *Qualitative Decision-Theoretic Systems for Strategic Decision Making*, F49620–06–1–0243, 2006–2008 (three years), total amount $459,804.

Intel Corporation, *Parametric Conditional Probability Distributions Based on Independence of Causal Influences*, 2004–2007 (three years), total amount $150,228.
Air Force Office of Scientific Research (AFOSR), *Canonical Probability Distributions for Model Building, Learning, and Inference*, F49620–03–1–0187, 2003–2005 (three years), total amount $381,883.
Hughes Raytheon Laboratories, industrial grant, 2001–2002 (one year), total amount $52,644.
Air Force Office of Scientific Research (AFOSR), *Enhancements of Systems Based on Bayesian Networks and Structural Equation Models for Command and Control Support*, F49620–00–1–0112, 2000–2003 (three years), total amount $458,028.
National Aeronautics and Space Administration (NASA), *Automated Learning with Probabilistic Networks for Study and Exploration of the Universe*, training grant supplement for Denver H. Dash, a doctoral student in the Intelligent Systems Studies Program, University of Pittsburgh, NGT5–50252, 1999–2001 (two years), total amount $44,000.
North Atlantic Treaty Organization (NATO), *Diagnostic Systems Based on Graphical Decision-Theoretic Models*, NATO Collaborative Linkage Grant, PST.CLG.976167, 2000–2001 (two years), total amount $9,476.47 (with Dr. Leon Bobrowski, Białystok University of Technology, Białystok, Poland, Dr. Hanna Wasyluk, Medical Center for Postgraduate Education, Warsaw, Poland, and Dr. F. Javier Díez, UNED, Madrid, Spain).
National Science Foundation (NSF), Faculty Early Career Development (CAREER) Program, *Towards Efficient Search-based Algorithms for Belief Updating, Decision Making, and Explanation in Bayesian Belief Networks*, IRI–9624629, 1996–2000 (four years), total amount $217,915.
National Science Foundation (NSF), Research Experiences for Undergraduates (REU) supplement to the project *Towards Efficient Search-based Algorithms for Belief Updating, Decision Making, and Explanation in Bayesian Belief Networks*, IRI–9624629, 1999–2001 (two years), total amount $12,500.
Air Force Office of Scientific Research (AFOSR), *Systems Based on Bayesian Belief Networks and Structural Equation Models for Command and Control Support*, F49620–97–1–0225, 1997–1999 (three years), total amount $618,805.
Microsoft Corporation, Instructional Grant Program, Instructional Lab Grant, 97806, 1997–1999 (two years), total amount $30,406.
Heinz Corporation, industrial grant, 1998–1999 (one year), total amount $50,703.
University of Pittsburgh, Small Grants Program, *Strategic Planning Systems Combining Bayesian Belief Networks and Structural Equation Models*, 1996–1997 (one year), total amount $11,892.
Defense Advance Research Projects Agency (DARPA), *A Student Modeling Module Based on Bayesian Reasoning*, N66001–95–C–8367, 1995–1997 (two years), $193,344 (Principal Investigator: Dr. Kurt VanLehn, Learning Research and Development Center, University of Pittsburgh).

MAJOR SOFTWARE DEVELOPMENT PROJECTS:

Led the development of the following systems between 1995 and 2015 (development continued by BayesFusion, LLC, `https://www.bayesfusion.com/` from May 2015, under license from the University of Pittsburgh):

- **SMILE**☺, **S**tructural **M**odeling, **I**nference, and **L**earning **E**ngine.
  A portable library of C++ classes implementing graphical decision-theoretic modeling tools, such as Bayesian networks and influence diagrams, and algorithms for learning them from data and reasoning with them. **SMILE**☺ is available for a number of platforms, including Windows, Unix, Linux, Mac, iPhone and Android. Wrappers for **SMILE**☺ are available for Java, Python, R, .NET and .COM environments.

- **GeNIe** and **QGeNIe**, Windows user interfaces to **SMILE**☺ (can be used on Linux and MacOS machines under Windows emulators, such as Wine).

CONSULTING:

Consulting activities in the area of decision support under uncertainty and decision modeling for:

BayesFusion, LLC (founding partner and consultant), Pittsburgh, PA
Cornell University, Ithaca, NY
Department of Biomedical Engineering, Carnegie Mellon University, Pittsburgh, PA
United Technologies Research Center, East Hartford, CT
The Boeing Company, Seattle, WA
Hughes Raytheon Laboratories (HRL), Malibu, CA
Office of Fire and Aviation (OFA), Bureau of Land Management, Boise, ID
Philips Research, Briarcliff Manor, NY
National Institute of Standards and Technology (NIST), Geithersburg, MD
Science Applications International Corporation (SAIC), San Diego, CA
Aluminum Company of America (ALCOA), Pittsburgh, PA
Office of Budget and Planning, Carnegie Mellon University, Pittsburgh, PA
Department of Philosophy, Carnegie Mellon University, Pittsburgh, PA
United States Naval War College, Newport, RI
Rockwell International Science Center, Palo Alto, CA
Institute for Decision Systems Research (IDSR), Palo Alto, CA

ACADEMIC COMMITTEES (University of Pittsburgh):

University of Pittsburgh:

University Research Committee (URC) (2013–2019)
Faculty advisor of the Panther Tango Club (2010–2019)
Provost's Advisory Council on Instructional Excellence (ACIE) (2010–2013)
Chair of the ACIE Faculty Development Committee (2011–2013)
Chancellor's Distinguished Teaching Award Selection Committee (2010–2012)
Advisory Committee for Faculty and TA/TF Development (1997–2000)
School representative for the Executive Committee for Academic Computing (ECAC) (1999–2001)
Senate Computer Usage Committee (1996–1999)
University-wide Committee on New Faculty Orientation (1998)

School of Information Sciences:

Assessment Committee (2014–2019, chair)
Faculty Search Committee (2011–2012, chair)
iFest Student Poster Competition Committee (2009)
Peer Review of Teaching Committee (2007–2008, 2010–2011, 2011–2012)
SIS Council (2006–2008)
Faculty Search Committee (2004–2005)
Faculty Search Committee (2003–2004, chair)
Planning and Budget Committee (PBC) (2003–2004)
Information Technology and Networking Oversight Committee (CONTI) (1994–1995, 1999–2001)
Chair of the Catherine Ofiesh Orner Award Committee (1996–1997)
1998 William Z. Nasri Award Competition Committee (1997–1998)
1998 & 2003 Margaret Mary (Peg) Corbett Award Committee

Graduate Program in Information Science:

Ph.D. Admissions, Recruitment and Program Committee (1994–2019, chair 2004–2008)
Undergraduate Courses and Curricula Committee (1993–1997, 2002–2003)
Chair of the Colloquia Committee (1994–2001)
Teaching Evaluation Committee (1997–2001)
Financial Aid Committee (1997–2001)
International Endeavors Committee (1998–2001)
Continuing Education Committee (1993–1995)
Graduate Courses and Curricula Committee (1993–1996)

Intelligent Systems Program:

Program Director Election Committee (2006, 2012)
Ph.D. Admissions Committee (1994–2019)

Other:

Member of the Department Council, Department of Computer Science, Białystok University of Technology (2007–present)
Member of the Doctoral School Council, Białystok University of Technology (2023–present)
Medical Informatics Training Program Curriculum Committee (1998)

LANGUAGES:

Fluent in English, Dutch and Polish. Good knowledge of Russian, basic German and Spanish.

PROFESSIONAL SOCIETIES:

Fulbright State Alumni Community, since 2010
American Association for Artificial Intelligence (AAAI), since 1989
The Institute of Electrical and Electronic Engineers (IEEE), since 1988, lifetime senior member since 2005
Association for Computing Machinery (ACM), since 2018
Institute for Operations Research and the Management Sciences (INFORMS), since 1993
Association for Uncertainty in Artificial Intelligence (AUAI), since 1989
European Association for Decision Making (EADM), since 1993 (creation), EADM originated from the Society for Probability, Utility, and Decision Making (SPUDiM), member since 1989
Sigma Xi, The Scientific Research Society, lifetime member, full member since 1994

PUBLICATIONS:

In preparation:

F. Javier Díez and Marek J. Druzdzel. *Canonical probabilistic interaction models.*

Marek J. Druzdzel. *Mechanism-based view of causal discovery.*

Journals:

Paul Guillod, Akil Savvas, Peter N. Robinson, David Nai, Kikkeri N. Naresh, German Ott, Anna Schuh, William A. Sewell, Marcus Anderson, Nicolas Matentzoglu, Divya Durgavarjhula, Mina L. Xu, Marek J. Druzdzel and John M. Astle. A systematic approach to prioritize diagnostically useful findings for inclusion in electronic health records as discrete data to improve clinical AI tools and genomic research. *Clinical Oncology*, Vol. 39, 103737, 2025.

Agnieszka Onisko and Marek J. Druzdzel. Sensitivity of Bayesian Networks to Errors in Their Structure. *Entropy*, 26(11), 975, 2024.

Agnieszka Onisko and Marek J. Druzdzel. Sensitivity of Bayesian Networks to Noise in Their Parameters. *Entropy*, 26(11), 963, 2024.

Danial Hooshyar and Marek J. Druzdzel. Memory-Based Dynamic Bayesian Networks for Learner Modeling: Towards Early Prediction of Learners' Performance in Computational Thinking. *Education Sciences*, 14(8), 917, 2024.

Keith M. Reynolds, Steve Paplanus, Philip J. Murphy, Marek J. Druzdzel, Clive Spenser and Bruce J. Miller. Latest features of the ecosystem management decision support system, version 8.0. Frontiers in Environmental Science, 11(2023), doi:DOI 10.3389/fenvs.2023.1231818.

Emma B. Camus, Jonathan R. Rhodes, Clive A. McAlpine, Daniel Lunney, John Callaghan, Ross Goldingay, Angie Brace, Murray Hall, Scott Benitez Hetherington, Marama Hopkins, Marek J. Druzdzel, Helen J. Mayfield. Using expert elicitation to identify effective combinations of management actions for koala conservation in different regional landscapes. Wildlife Research, 2022, doi:10.1071/WR22038.

Marek J. Druzdzel and Jayant R. Kalagnanam. *Performance budget planning: The case of a research university. Computational Economics*, 57(3):869–887, 2021.

Sanya Bathla Taneja, Gerald P. Douglas, Gregory F. Cooper, Marian G. Michaels, Marek J. Druzdzel and Shyam Visweswaran. *Bayesian network models with decision tree analysis for management of childhood malaria in Malawi. BMC Medical Informatics and Decision Making*, 21(1):158, 2021.

Manreet K. Kanwar, Mardi Gomberg-Maitland, Marius Hoeper, Christine Pausch, David Pittrow, Geoff Strange, James J. Anderson, Carol Zhao, Jacqueline V. Scott, Marek J. Druzdzel, Jidapa Kraisangka, Lisa Lohmueller, James Antaki, Raymond L. Benza. *Risk stratification in pulmonary arterial hypertension using Bayesian analysis. European Respiratory Journal*, 56(2):2000008, 2020.

Alind Gupta, Justin J. Slater, Devon Boyne, Nicholas Mitsakakis, Audrey Béliveau, Marek J. Druzdzel, Darren R. Brenner, Selena Hussain and Paul Arora. *Probabilistic graphical modeling for estimating risk of coronary artery disease: Applications of a flexible machine-learning method. Medical Decision Making*, 39(8):1032–1044, November 2019.

Paul Arora, Devon Boyne, Justin J. Slater, Alind Gupta, Darren R. Brenner and Marek J. Druzdzel. *Bayesian networks for risk prediction using real-world data: A tool for precision medicine. Value in Health*, 22(4): 439-445, March 2019.

Nur H. Orak, Mitchell J. Small and Marek J. Druzdzel. *Bayesian network-based framework for exposure-response study design and interpretation. Environmental Health*, 18(23):1–12, 2019.

Agnieszka Oniśko, Marek J. Druzdzel and R. Marshall Austin. *Application of Bayesian network modeling to pathology informatics. Diagnostic Cytopathology*, 47(1):41–47, January 2019.

Jidapa Kraisangka and Marek J. Druzdzel. *Corrigendum to "A Bayesian network interpretation of the Cox's Proportional Hazard model"* [*International Journal of Approximate Reasoning (IJAR), 103:195–211, December 2018*]. 111:51–52, March 2019.

Jidapa Kraisangka and Marek J. Druzdzel. *A Bayesian network interpretation of the Cox's Proportional Hazard model. International Journal of Approximate Reasoning (IJAR)*, 103:195–211, December 2018.

Oliver Lindhiem, Charles B. Bennett, Rinad S. Beidas, Damion J. Grasso, Dara J. Sakolsky and Marek J. Druzdzel. *Development and preliminary feasibility testing of a decision support tool for childhood anxiety treatment. Cognitive and Behavioral Practice*, 25(2):199-207, May 2018.

Mario A. Cypko, Matthaeus Stoehr, Marcin Kozniewski, Marek J. Druzdzel, Andreas Dietz, Leonard Berliner and Heinz U. Lemke. *Validation workflow for a clinical Bayesian network model in multidisciplinary decision making in head and neck oncology treatment. International Journal of Computer Assisted Radiology and Surgery*, 12(11):1959–1970, 2017.

Marcin Kozniewski, Mario A. Cypko, Marek J. Druzdzel. *How reliable in a measure of model reliability? Bootstrap confidence intervals over validation results. Advances in Computer Science Research*, 13:27–41, 2016.

Agnieszka Oniśko, Marek J. Druzdzel and R. Marshall Austin. *How to interpret the results of medical time series data analysis: Classical statistical approaches versus dynamic Bayesian network modeling. Journal of Pathology Informatics*, 7:50, 2016.

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F. Javier Díez and Marek J. Druzdzel. *Fundamentals of canonical models.* In *Proceedings of the IX Conferencia de la Asociación Española para la Inteligencia Artificial (CAEPIA–TTIA 2001)*, pages 1125-1134, Gijón, Spain, 2001.

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Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *Extension of the* Hepar II *model to multiple-disorder diagnosis.* In *Intelligent Information Systems*, M. Klopotek, M. Michalewicz, S.T. Wierzchoń (eds.), pages 303–313, *Advances in Soft Computing* Series, Physica-Verlag (A Springer-Verlag Company), Heidelberg, 2000.

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Marek J. Druzdzel and Clark Glymour. *Causal inferences from databases: Why universities lose students.* In Clark Glymour and Gregory F. Cooper (eds), *Computation, Causation, and Discovery*, Chapter 19, pages 521–539, AAAI Press, Menlo Park, CA, 1999.

Denver H. Dash and Marek J. Druzdzel. *Problems related to causal reasoning in equilibrium models.* In *Proceedings of the Conference on Theoretical Informatics: Methods of Analysis of Incomplete and Distributed Information*, pages 24–26, Białystok, Poland, 26–28 November 1999.

Denver H. Dash and Marek J. Druzdzel. *A fundamental inconsistency between equilibrium causal discovery and causal reasoning formalisms.* In *Working Notes of the Workshop on Conditional Independence Structures and Graphical Models*, pages 17–18, Fields Institute, Toronto, Canada, 27 September – 1 October 1999.

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Yan Lin and Marek J. Druzdzel. *Stochastic sampling and search in belief updating algorithms for very large Bayesian networks.* In *Working notes of the AAAI–1999 Spring Symposium on Search Techniques for Problem Solving Under Uncertainty and Incomplete Information*, pages 77–82, Stanford, CA, March 22–24, 1999.

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Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *A probabilistic causal model for diagnosis of liver disorders.* In *Proceedings of the Seventh Symposium on Intelligent Information Systems (IIS–98)*, pages 379–387, Malbork, Poland, June 15–19, 1998.

Marek J. Druzdzel, Tsai-Ching Lu and Tze-Yun Leong. *Interactive construction of decision models based on causal mechanisms.* In *Working notes of the AAAI 1998 Spring Symposium on Interactive and Mixed-initiative Decision-theoretic Systems*, pages 38–44, Stanford, CA, March 23–25, 1998.

Hans van Leijen and Marek J. Druzdzel. *Reversible causal mechanisms in Bayesian networks.* In *Working notes of the AAAI 1998 Spring Symposium on Prospects for a Commonsense Theory of Causation*, pages 24–30, Stanford, CA, March 23–25, 1998.

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Marek J. Druzdzel. *An incompatibility between preferential ordering and the decision-theoretic notion of utility.* In *Working notes of the AAAI 1997 Spring Symposium on Qualitative Preferences in Deliberation and Practical Reasoning*, pages 35–40, Stanford, CA, March 23–25, 1997.

Marek J. Druzdzel. *Technology use in computer programming courses.* In *Second Annual University of Pittsburgh Teaching Excellence Conference: Technology in Teaching*, Pittsburgh, PA, March 29, 1996.

Marek J. Druzdzel and Clark Glymour. *Having the right tool: Causal graphs in teaching research design.* In *What Works in University Teaching: University of Pittsburgh Teaching Excellence Conference*, Pittsburgh, PA, March 31 – April 1, 1995.

Marek J. Druzdzel. *Getting the message across to students: Multimedia syllabi.* In *What Works in University Teaching: University of Pittsburgh Teaching Excellence Conference*, Pittsburgh, PA, March 31 – April 1, 1995.

Marek J. Druzdzel and Henri J. Suermondt. *Relevance in probabilistic models: "backyards" in a "small world."* In *Working notes of the AAAI 1994 Fall Symposium on Relevance*, pages 60–63, New Orleans, LA, November 4–6, 1994.

Marek J. Druzdzel and Clark Glymour. *Application of the TETRAD II program to the study of student retention in U.S. colleges.* In *Proceedings of the AAAI–94 Workshop on Knowledge Discovery in Databases (KDD–94)*, pages 419–430, Seattle, WA, July 1994.

Marek J. Druzdzel and Max Henrion. *Belief propagation in qualitative probabilistic networks.* In *Qualitative Reasoning and Decision Technologies*, N. Piera Carrete & M.G. Singh (eds), pp. 451–460, CIMNE: Barcelona, 1993.

Marek J. Druzdzel and Max Henrion. *Using scenarios to explain probabilistic inference.* In *Working notes of the AAAI–90 Workshop on Explanation*, pages 133–141, AAAI Press, Menlo Park, CA, 1990.

Max Henrion and Marek J. Druzdzel. *Qualitative and linguistic explanation of probabilistic reasoning in belief networks.* In *Proceedings of the Third International Conference on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU)*, pages 225–227, Paris, France, July 1990.

Invited:

Marek J. Druzdzel. *Explanation in probabilistic systems: Is it feasible? Will it work?* In *Proceedings of the Fifth International Workshop on Intelligent Information Systems (WIS–96)*, pages 12–24, Dęblin, Poland, June 2–5, 1996.

Marek J. Druzdzel and Clark Glymour. *What do college ranking data tell us about student retention: Causal discovery in action.* In *Proceedings of the Fourth International Workshop on Intelligent Information Systems (WIS–95)*, pages 138–147, Augustów, Poland, June 5–9, 1995.

Marek J. Druzdzel. *Discussion of Moises Goldszmidt's "Belief-based irrelevance and networks: Toward faster algorithms for prediction."* In *Working notes of the AAAI–1994 Fall Symposium Series: Relevance*, page 100, New Orleans, LA, November 4–6, 1994.

Marek J. Druzdzel. *Some useful properties of probabilistic knowledge representations from the point of view of intelligent systems.* In *Proceedings of the Third International Workshop on Intelligent Information Systems (WIS–94)*, pages 278–292, Wigry, Poland, June 4–11, 1994.

Limited circulation:

Marek J. Druzdzel, Agnieszka Oniśko, Daniel Schwartz, John N. Dowling and Hanna Wasyluk. *Knowledge engineering for very large decision-analytic medical models.* Research Report CBMI–99–26, Center for Biomedical Informatics, University of Pittsburgh, September 1999 (a full version of the short paper published in AMIA–99).

Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *A Bayesian network model for diagnosis of liver disorders.* Research Report CBMI–99–27, Center for Biomedical Informatics, University of Pittsburgh, September 1999.

Marek J. Druzdzel. *Probabilistic Reasoning in Decision Support Systems: From Computation to Common Sense.* Ph.D. Dissertation, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA, January 1993. Available through the University Microfilms International.

Marek J. Druzdzel. *Scenario-based explanations for Bayesian decision support systems.* Technical Report CMU–EPP–1990–03–04, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA, January 1990.

Marek J. Druzdzel. *Towards process models of judgment under uncertainty.* Technical Report CMU–EPP–1990–03–03, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA, October 1989.

Marek J. Druzdzel. *Verbal uncertainty expressions: Literature review.* Technical Report CMU–EPP–1990–03–02, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA, May 1989.

Marek J. Druzdzel. *Current Trends in Computer Architecture and Their Relation to the LISP Programming Language.* M.S. Thesis, Reprinted as Technical Report 1–68340–28 (1987)02, Department of Electrical Engineering, Technische Universiteit Delft, Delft, The Netherlands, February 1987.

Marek J. Druzdzel. *Implementation of the Memory Management Module of the UNIX System V Kernel on a MC68010 Based Single Board Computer.* M.S. Thesis, Department of Mathematics and Computer Science, Technische Universiteit Delft, Delft, The Netherlands, November 1985.

ORAL PRESENTATIONS:

(in addition to the conference, workshop, and symposium presentations of the papers listed above)

October 2025 Member of the panel *Enabling Open Science: Strategies & Challenges for Research Funding Agencies* (with Profs. Maciej Żylicz and Krzysztof Kurzydłowski), part of the *ACROSS Open Science Week.* Białystok University of Technology, Białystok, Poland.

September 2025 *Forecast the Future ... with the Creator of the Bayesian Statistics Software GeNIe 5.0, Prof. Marek J. Druzdzel.*
The International Center for Eastern Europe Research (ICEUR), Vienna, Austria.

September 2025 *Bayesian Networks as a Broad Family of Modeling Tools.*
The Auton Lab, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.

April 2025 *Fusion of Simultaneous Equation Models and Bayesian Networks.*
Webinar of the Bayesian Network Modeling Association (BNMA), Australia/New Zealand.

June 2024 *Foundations and Applications of Bayesian Networks.*
Hybrid Regulation of Learning with Artificial Intelligence (Edu-HAI) project seminar, Tallinn University, Estonia.

March 2024 *Data Analysis and Causal Discovery Using Bayesian Networks.*
Technologies of Exploration and Representation of Knowledge (TERW) Conference of the Polish Information Processing Society, Supraśl, Poland.

March 2024 *Data Analysis and Causal Discovery Using Bayesian Networks.*
Statistics in Practice, 2nd Edition, Faculty of Economics and Finance, Białystok University, Białystok, Poland.

November 2023 *Bayesian Networks as Systems of Simultaneous Equations.*
Faculty of Computer Science, Białystok University of Technology, Poland.

November 2023 *BayesFusion Tools.*
Expanding Horizons – BNs and Beyond: Bayesian Network Modelling Association Annual Conference 2023, University of Queensland St Lucia Campus, Brisbane, Australia.

June 2023 *An Overview of the Foundations and Applications of Probabilistic Graphical Models.*
Universidad Nacional de Educación a Distancia, Madrid, Spain.

June 2022 *Everything You Need to Know About Bayesian Networks, Markov Condition, and Learning Bayesian Networks from Data* A mini-course consisting of a series of four lectures at the *Centre for Artificial Intelligence Research (CAIR)*, *University of Agder*, Grimstad, Norway.

November 2019 *What Good are Bayesian Networks in Modeling Risk and Decision Making* Invited keynote talk at the *Eleventh Annual Conference of the Australasian Bayesian Network Modelling Society and the Society for Risk Analysis Australia (ABNMS–2019)*, Wellington, New Zealand.

June 2019 *(Selected Aspects of) Artificial Intelligence and How It Can Support Decisions* Invited lecture at the *Assisted Circulation Gordon Research Conference (GRC)*, Barcelona, Spain

June 2018 *A Beginning Scientist's Workbench* Invited lecture, student session of the *Mathematics of Borderlands* Conference, Białystok, Poland

June 2018 *Self-Confidence in Decision Support Systems Based on Bayesian Networks.* Faculty of Computer Science, Białystok University of Technology, Poland.

May 2018 *Self-Confidence in Decision Support Systems Based on Bayesian Networks.* Faculty of Mathematics and Information Science Warsaw University of Technology, Poland.

August 2017 *Bayesian Networks and their Applications in Medicine.*
Invited plenary talk, *Digital Operating Room Summer School (DORS)* Leipzig, Germany.

August 2017 *Digital Patient Modeling – A Commercial Perspective.*
Digital Operating Room Summer School (DORS) Think Tank on the *Future of Digital Patient Model (DPM)* Leipzig, Germany.

November 2016 *(The Importance of) Human Interface to Bayesian Networks.*
Invited plenary talk, *Eighth Annual Conference of the Australasian Bayesian Network Modelling Society (ABNMS2016)* Crawley, Western Australia.

April 2016 *Applications of Bayesian Networks.*
Heinz School of Business, Carnegie Mellon University, Pittsburgh, PA.

November 2015 *Uncertainty and Self-confidence.*
Invited plenary talk, AAAI 2015 Fall Symposium on *Self-confidence in Autonomous Systems.*

March 2015 *Applications of Bayesian Networks.*
Heinz School of Business, Carnegie Mellon University, Pittsburgh, PA

August 2014 *Tutorial "Directed Probabilistic Graphs: Learning and Inference". Web Intelligence Congress (WIC–2014)*, Warsaw, Poland.

July 2014 *Being an Academic Researcher: What's It Like?* Invited lecture, student session of the *6th Podlasie Conference on Mathematics*, Białystok, Poland.

May 2014 *Deterministic Independence and a Mechanism-based View of Causal Discovery.*
Invited plenary lecture, *21st Workshop of the Polish Computer Simulation Society (PTSK)*: *Simulation in Research and Development*, Białowieża, Poland.

May 2014 *Computer-aided Decision Support: Applications in Medicine.*
Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

April 2014 *Applications of Bayesian Networks.*
Heinz School of Business, Carnegie Mellon University, Pittsburgh, PA.

November 2013 *How Can Computers Improve Our Decision Making?* Fox Chapel Rotary International club meeting, Pittsburgh, PA

April 2013 *Bayesian Networks and Their Applications.*
Aluminum Corporation of America (Alcoa), Pittsburgh, PA.

April 2013 *Applications of Bayesian Networks.*
Heinz School of Business, Carnegie Mellon University, Pittsburgh, PA.

February 2013 *Interview (podcast) on the topic of decision support systems.*
Universidad Nacional de Educación a Distancia, Madrid, Spain.
Interview available at `https://canal.uned.es/mmobj/index/id/15858`

December 2012 *"Big Data:" A Personal View.*
Faculty Panel on "Big Data," School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

October 2012 *A Comparison of Popular Fertility Awareness Methods to a DBN Model of the Woman?s Monthly Cycle.* Workshop on "Foundations of Knowledge Representation and Reasoning in Biomedicine," Lorentz Center, Leiden University, Leiden, The Netherlands.

October 2012 *Speaking Intelligently About Decision Support.* "Speaking Intelligently About" Lecture Series, School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

September 2012 *Time Management.*
New Member Conference, Interfraternal Council, University of Pittsburgh, Pittsburgh, PA.

June 2012 A cycle of four short lectures covering important problems faced by the Białystok University of Technology: *"Whatever Johnny Will Not Learn ...:" Can a University Teacher Afford to Tolerate Dishonesty?* (19 June 2012), *"The Effects of Teaching:" What Should We Teach Our Students?* (21 June 2012), *"Which Hat Do I Wear?:" Reflections on the Theme of Conflict of Interest* (26 June 2012), *"Punishment and Crime:" Trust and the Consequences of Its Abuse in USA and Poland* (28 June 2012).
Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

June 2012 *The Theoretical and Practical Beauty of Acyclic Directed Probabilistic Graphical Models.*
Invited plenary lecture, 5th Podlasie Conference on Mathematics, Białystok, Poland.

June 2012 *A Few Cool Elements of Human Information Processing.*
Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

June 2012 *Applications of Probability Theory and Decision Theory in Artificial Intelligence.*
Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

June 2012 *Bayesian Networks and Their Practical Applications.*
Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

April 2012 *Bayesian Modeling and Problem Solving.*
University Research and Entrepreneurship Symposium, Cambridge, MA.

December 2011 *Bayesian Modeling for Clinical Decision Support when Diagnosing Diffuse Liver Disease.*
Workshop *Can Systems Biology Aid Personalized Medication?*, organized by the Diabetes and Integrative Systems Biology group, Diabetes Research Centre, Department of Clinical and Experimental Medicine, Linköping University, Linköping, Sweden.

November 2011 *Can We Eliminate Knowledge Engineering for Bayesian Networks Altogether?.*
Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

November 2011 *Bayesian Modeling and Problem Solving.*
Software Advisory Committee Meeting, University of Pittsburgh, Pittsburgh, PA.

July 2011 *Probabilistic Graphical Models in Strategic Planning.*
Universidad Nacional de Educación a Distancia, Madrid, Spain.

June 2011 *Writing Research Articles.* Uniwersytet w Białymstoku (Białystok University) Białystok, Poland.

June 2011 *Finding Research Topics.* Uniwersytet w Białymstoku (Białystok University) Białystok, Poland.

May 2011 *Writing Research Articles.* Centrum Onkologii, Instytut im. Marii Skłodowskiej-Curie (Marie Curie Skłodowska Oncology Center), Warsaw, Poland.

May 2011 *Impact of Precision of Parameters of Bayesian Networks on the Quality of Their Results.* Instytut Badań Systemowych Polskiej Akademii Nauk (Institute of System Research, Polish Academy of Sciences), *Methods of Intelligent Information Processing Seminars*, Warsaw, Poland.

April 2011 *Are Bayesian Networks Sensitive to Precision of their Parameters?* Department of Computer Science, University of Regina, Regina, Canada.

December 2010 *Impact of Precision of Parameters of Bayesian Networks on the Precision of Their Results.* Faculty of Computer Science, *Programming Engineering Research Seminar*, Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

March 2010 *The Role of Assumptions in Discovery of Causal Relationships from Data.* Institute of Computer Science, Department of Mathematics, Computer Science and Mechanics, University of Warsaw, Warsaw, Poland.

February 2010 *An Overview of Graphical Probabilistic Model.* Department of Biostatistical Sciences, Wake Forest University School of Medicine, Winston-Salem, NC.

December 2009 *Passive Construction of Diagnostic Decision Models.* Institute of Computer Science, Faculty of Electronics and Information Technology, Technical University of Warsaw, Poland.

November 2009 *The Role of Assumptions in Causal Discovery. Programming Engineering Research Seminar*, Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

November 2009 *Probabilistic Graphical Models in Decision Support. Department of Mechanical Engineering, Automation and Robotics Research Seminar*, Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

November 2009 *Probabilistic Graphical Models in Strategic Planning.* Seminar of the Laboratory of Intelligent Decision Support Systems, Institute of Computer Science, Poznań University of Technology, Poznań, Poland.

September 2009 *Tutorial on Bayesian networks. 8th Workshop on Uncertainty Processing (WUPES–09), LogiCCC Working Day*, Liblice, Czech Republic.

March 2009 *Cool Things That You Can Do With Graphical Probabilistic Models.*
The Auton Lab, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.

September 2008 *Representation of Conditional Probability Distributions in Bayesian Networks: A Canonical Model for Opposing Influence.*
Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

June 2008 *Directed Probabilistic Graphs* (Invited Plenary Talk).
Sixteenth International Conference on Intelligent Information Systems (IIS–08), Zakopane, Poland.

April 2008 *Hard Problems in Fielding Bayesian Networks and How to Handle Them.*
Boeing Research, Seattle, WA.

April 2008 *Graphical Probabilistic Models in Strategic Planning.*
IBM Thomas J. Watson Research Center, Yorktown Heights, NY.

March 2008 *Are Bayesian Networks Sensitive to Precision of Their Parameters?.*
Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

September 2007 *How to Be a Successful Doctoral Student.*
Survival Skills and Ethics Workshop on *Training for Success*, University of Pittsburgh, Pittsburgh, PA.

February 2007 *Graphical Probabilistic Models in Strategic Planning.*
Computer Science Department, University of Southern California, Los Angeles, CA.

February 2007 *Graphical Probabilistic Models in Strategic Planning.*
2007 Annual Conference of the Association for Strategic Planning, *Strategic Planning: Lessons from Practice*, Los Angeles, CA.

February 2007 *Graphical Probabilistic Models in Strategic Planning.*
HRL Laboratories, Malibu, CA.

December 2006 *Dynamic Weighting A* Search-Based MAP Algorithm for Bayesian Networks.*
Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

November 2006 *Two Stochastic Sampling Algorithms for Bayesian Networks: AIS-BN and EPIS-BN.*
Institute of Computer Science, Polish Academy of Sciences, Warsaw, Poland.

November 2006 *Two Stochastic Sampling Algorithms for Bayesian Networks: AIS-BN and EPIS-BN.*
Faculty of Computer Science, Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

November 2006 *Learning Bayesian Networks: Methodology and Applications.*
Fall 2006 Meeting of the Institute for Operations Research and the Management Sciences (INFORMS), Pittsburgh, PA.

May 2006 *Canonical Probability Distributions for Model Building, Learning, and Inference.*
New World Vistas AFOSR Progress Meeting, Fart Walton Beach, FL.

March 2006 *ESP: The Environment for Strategic Planning.* School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

October 2005 *Causal Graphs in Strategic Decision Making.*
United States Air Mobility Command, Scott Air Force Base, IL.

September 2005 *Decision-analytic Methods in Medicine: Tools and their Usefulness.*
Philips Research, Briacliff Manor, NY.

August 2005 *There Are Good Reasons for SMILEing.*
New World Vistas AFOSR Progress Meeting, Saint Louis, MO.

March 2005 *Diagnostic Systems Based on Bayesian Networks: State of the Art and Some Directions for Further Work.* Intel Research, Santa Clara, CA.

March 2005 *An Amazing Property of Joint Probability Distributions.* Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

May 2004 *Effect of Imprecision in Probabilities on the Quality of Results in Bayesian Networks: An Empirical Study.* Department of Theoretical Physics, Institute of Physics, Uniwersytet Marii Curie Skłodowskiej (Maria Skłodowska Curie University), Lublin, Poland.

April 2004 *Importance Sampling Algorithms for Bayesian Networks: Principles and Performance.*
School of Computing, National University of Singapore.

April 2004 *Effect of Imprecision in Probabilities on the Quality of Results in Bayesian Networks: An Empirical Study.* School of Computing, National University of Singapore.

September 2003 *Effect of Imprecision in Probabilities on the Quality of Results in Bayesian Networks: An Empirical Study.* Intelligent Systems Program's Artificial Intelligence Forum, University of Pittsburgh, Pittsburgh, PA.

May 2003 *More Good News About Importance Sampling in Bayesian Networks.*
New World Vistas AFOSR Progress Meeting, Estes Park, CO.

April 2003 *How Can Computers Improve Our Decision Making?* North Boroughs Rotary International club meeting, Pittsburgh, PA.

October 2002 *Augmenting Human Decision Making Through Normative Systems.* Air Force Rome Laboratories Decision Science Working Group (DSWG) meeting, George Mason University, Fairfax, VA.

May 2002 *An Overview of the ESP (Environment for Strategic Planning) Project.*
Universidad Nacional de Educación a Distancia, Madrid, Spain.

May 2002 *An Overview of the ESP (Environment for Strategic Planning) Project.* School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

November 2001 *GeNIe and SMILE☺: Tools for Decision Modeling under Uncertainty.*
New World Vistas AFOSR Progress Meeting, Minnowbrook, NY.

October 2001 *Decision Support Technology in Healthcare: The Time is Ripe.* CIO Forum, Healthcare Information Management & Technology, Singapore

September 2001 *Money, Time, and Quality of Care: Reasoning Into New Frontiers* (with Tze-Yun Leong and David K.T. Loh). BioMedical Asia 2001 BioMedical Sciences in the Post Genomic Era: Challenges and Opportunities, Singapore.

January 2001 *Decision Support Systems Based on Graphical Probabilistic Models.* Department of Statistics, University of Pittsburgh, Pittsburgh, PA.

September 2000 *GeNIe and SMILE☺: Tools for Decision Modeling under Uncertainty.*
New World Vistas and Electronic Prototyping Review Conference, Lockheed Martin Electronics and Missiles Facility, Orlando, FL.

April 2000 *How to Be a Good Graduate Mentor.* Invited lecture at the *Survival Skills and Ethics Workshops*, University of Pittsburgh, Pittsburgh, PA.

March 2000 *Bayesian Theory and Influence Nets: A Planner?s Tool.* Faculty-Student Dean's Forum on Decision Science Lecture Series, The Center for Naval Warfare Studies, United States Naval War College, Newport, RI.

March 2000 *Decision Analysis and Decision Support Systems.* Honors Day lecture, University of Pittsburgh, Pittsburgh, PA.

November 1999 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

September 1999 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.

June 1999 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* College of Business and Public Policy, Univesity of Alaska, Anchorage, AK.

May 1999 *From Local Dependences to Model Structure: A Computer Aid for Building Influence Diagrams.* Spring 1999 Meeting of the Institute for Operations Research and the Management Sciences (INFORMS), Cincinnati, OH.

May 1999 *An Overview of the Environment for Strategic Planning (ESP) Project.* New World Vistas AFOSR Progress Meeting, Minnowbrook, NY.

December 1998 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* Institute for Social and Economic Research, University of Alaska, Anchorage, AK.

November 1998 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* Department of Computer Science, York University, Toronto, Ontario, Canada.

September 1998 *Imagine GeNIe SMILE: An Overview of the ESP (Environment for Strategic Planning) Project.* Universiteit Utrecht (Utrecht University) and Technische Universiteit Delft (Delft University of Technology), The Netherlands.

September 1998 *The ESP Project (Environment for Strategic Planning).* Center for Naval Warfare Studies, Decision Support Department, United States Naval War College, Newport, RI.

May 1998 *Systems Based on Bayesian Networks and Structural Equation Models for Command and Control Support.* New World Vistas AFOSR Progress Meeting, Monterey, CA.

April 1998 *A Probabilistic Causal Model for Diagnosis of Liver Disorders.* School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

April 1998 *Learning to Do Science by Doing: Experiences from Teaching Research Design to Information Science Ph.D. Students.* Fourth Annual University of Pittsburgh Teaching Excellence Conference: Active Learning Across the Disciplines, University of Pittsburgh, Pittsburgh, PA.

October 1997 *Relevance in Probabilistic Models: "Backyards" in a "Small World."* Politechnika Białostocka (Białystok University of Technology), Białystok, Poland.

July 1997 *Computational Advantages of Relevance Reasoning in Bayesian Belief Networks.* Universiteit Utrecht (Utrecht University), Utrecht, The Netherlands.

June 1997 *Systems Based on Bayesian Networks and Structural Equation Models for Command and Control Support.* New World Vistas AFOSR Progress Meeting, Boston, MA.

March 1997 *Simple and Robust Methods for Increasing Student Collaboration.* Third Annual University of Pittsburgh Teaching Excellence Conference: Teaming Up for Learning, University of Pittsburgh, Pittsburgh, PA.

February 1997 *The CESP (Computational Environment for Strategic Planning) Project.* School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

December 1996 *Combining Qualitative and Quantitative Information in Probability Elicitation.* Department of Information Systems and Computer Science, National University of Singapore.

September 1996 *The CESP (Computational Environment for Strategic Planning) Project.*
Intelligent Systems Studies Program, University of Pittsburgh, Pittsburgh, PA.

June 1996 *Causal Ordering and Causal Discovery.* Reinforcement Learning Seminar Series, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.

May 1996 *Combining Qualitative and Quantitative Information in Probability Elicitation.*
Spring 1996 Meeting of the Institute for Operations Research and the Management Sciences (INFORMS), Washington, D.C.

April 1996 *Causal Ordering and Causal Discovery.* Machine Learning and Inference (MLI) Laboratory research colloquium, George Mason University, Fairfax, VA.

September 1995 *Combining Qualitative and Quantitative Information in Probability Elicitation.*
Intelligent Systems Studies Program, University of Pittsburgh, Pittsburgh, PA.

July 1995 *Asymmetries in Joint Probability Distributions Over Model Variables.*
Workshop on Model Uncertainty and Model Robustness, Bath, England.

June 1995 *The TETRAD II Causal Discovery Program.*
Fourth International Workshop on Intelligent Information Systems (WIS–95), Augustów, Poland.

May 1995 *Combining Qualitative and Quantitative Information in Probability Elicitation.*
Fifth Annual Workshop on Normative Systems, George Mason University, Fairfax, VA.

May 1995 *If "Correlation Does Not Mean Causation" Then What Does It Mean: What I Should Have Learned in EPP But Have Not.* Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.

March 1995 *The Strategic Planning System Project.*
School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

November 1994 *Relevance in Probabilistic Models: "Backyards" in a "Small World."*
Intelligent Systems Studies Program, University of Pittsburgh, Pittsburgh, PA.

November 1994 *If "Correlation Does Not Mean Causation" Then What Does It Mean: How Elementary Statistics Courses Can Harm You.* Students Honors Activity Community, University Honors College, University of Pittsburgh, Pittsburgh, PA.

June 1994 *Qualitative Belief Propagation in Probabilistic Networks.*
Universiteit Utrecht (Utrecht University), Utrecht, The Netherlands,
Imperial Cancer Research Fund, London, England.

June 1994 *What Do College Ranking Data Tell Us About Student Retention: Causal Discovery in Action.*
FORWISS: Bayerisches Forschungszentrum für Wissensbasierte Systeme, (Bavarian Research Center for Knowledge-based Systems), Erlangen, Germany.
Technische Universiteit Delft (Delft University of Technology), The Netherlands.

March 1994 *What Do College Ranking Data Tell Us About Student Retention: Causal Discovery in Action.*
School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

December 1993 *Some Properties of Uncertain Models.*
Department of Philosophy, Carnegie Mellon University, Pittsburgh, PA.

November 1993 *Qualitative Probabilistic Networks.*
Workshop *Putting Qualitative Probabilities to Work*, San Francisco, CA.

November 1993 *The Structure of Uncertainty.*
Intelligent Systems Studies Program, University of Pittsburgh, Pittsburgh, PA.

May 1993 *Qualitative Probabilistic Reasoning.* Institute for Decision Systems Research, Palo Alto, CA.

March 1993 *Causality in Artificial Intelligence.*
Presentation at a bi-weekly meeting of the joint University of Pittsburgh and Carnegie Mellon University AI Research Group, University of Pittsburgh, Pittsburgh, PA.

March 1993 *Human Interface to Normative Decision Support.*
School of Information Sciences, University of Pittsburgh, Pittsburgh, PA.

April 1992 *Qualitative Reasoning with Belief Networks.*
Rockwell International Science Center, Palo Alto Laboratory, Palo Alto, CA.

March 1992 *Qualitative Belief Propagation in Multiply Connected Belief Networks.* Second Annual Workshop on Normative Systems, University of Southern California, Los Angeles, CA.

December 1991 *Treatment of Uncertainty in Decision Support Systems: The Probabilistic Approach.*
Technische Universiteit Twente (Twente University of Technology), Enschede, The Netherlands, Vrije Universiteit Amsterdam (Free University of Amsterdam), Amsterdam, The Netherlands.

November 1991 *Treatment of Uncertainty in Decision Support Systems: The Probabilistic Approach.*
Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.

May 1990 *Normative Methods in Computer-aided Medical Diagnosis.*
Instytut Onkologii im. Marii Curie Skłodowskiej (Maria Curie Skłodowska Onkology Institute), Warsaw, Poland.

March 1990 *Scenario-based Explanations for Bayesian Decision Support Systems.*
Presentation at a monthly lunchtime meeting of the Carnegie Mellon's Human-computer Interaction group, Pittsburgh, PA.

December 1989 *Scenario-based Explanations for Bayesian Decision Support Systems.*
Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.

April 1989 *Towards Process Models of Reasoning Under Uncertainty.*
Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.