PERSONAL DATA:

Name:	Agnieszka Oniśko
Electronic Mail:	a.onisko@pb.edu.pl
WWW:	http://aragorn.pb.bialystok.pl/∼aonisko

RESEARCH INTERESTS AND GOALS:

A research and teaching career in computer and information science with a special focus on medical informatics.

My research interests focus on Bayesian networks, medical diagnosis, and decision-analytic techniques in medical decision making, medical data analysis.

ACADEMIC BACKGROUND:

May 2017 Institute of Biocybernetics and Biomedical Engineering — Warsaw, Poland
Polish Academy of Science
D.Sc. (Doctor of Sciences) in biomedical engineering
Achievement: *Knowledge Engineering for Bayesian Network Models in Medicine*

Jun'00–Mar'03 Institute of Biocybernetics and Biomedical Engineering — Warsaw, Poland
Polish Academy of Science
Ph.D. in biomedical engineering
Dissertation: *Probabilistic Causal Models in Medicine: Applications to Diagnosis of Liver Disorders*,
Advisor: Leon Bobrowski

Oct'91–Jun'96 Białystok University of Technology — Białystok, Poland
M.Sc. in Computer Science
Thesis: *Feature Selection Using Genetic Algorithms* (in Polish)

PROFESSIONAL APPOINTMENTS:

Nov'19–present Białystok University of Technology — Białystok, Poland
Faculty of Computer Science
Associate professor

Mar'19–present Magee Womens Hospital, Department of Pathology — Pittsburgh, USA
University of Pittsburgh Medical Center
Adjunct researcher

Mar'07–Feb'19 Magee Womens Hospital, Department of Pathology — Pittsburgh, USA
University of Pittsburgh Medical Center
Research associate

Mar'05–Feb'06 Center for Biomedical Informatics, RODS loboratory — Pittsburgh, USA
University of Pittsburgh
Postdoctoral scholar

Apr'03–Oct'19 Białystok University of Technology — Białystok, Poland
Faculty of Computer Science
Assistant professor

Jan'97–Mar'03 Białystok University of Technology — Białystok, Poland
Faculty of Computer Science
Teaching assistant

Sep'98–May'99 University of Pittsburgh — Pittsburgh, USA
Center for Biomedical Informatics
Visiting fellow

Sep'98–Aug'99 University of Pittsburgh — Pittsburgh, USA
Decision Systems Laboratory, School of Information Sciences
Research associate

Jan'96–Jun'97 The Center of Informatics ZETO, Białystok Białystok, Poland
Database programmer

TEACHING EXPERIENCE:

Teaching: Conducted recitation sessions and taught a variety of courses independently at Białystok University of Technology, Faculty of Computer Science, since 1997. Courses involve two types of classes: (1) lectures and (2) laboratory classes.

Jan'97–present Białystok University of Technology Białystok, Poland
Faculty of Computer Science
Lectures:
Advanced databases and data warehouses.
Database-Driven Applications.
Management and programming database systems (designing and programming database applications).
Introduction to medical informatics.
Bayesian networks.
Laboratories:
Management and programming database systems: programming in SQL, pl/sql, designing and programming database applications in Form Builder and Report Builder (ORACLE), MySQL, MS SQL Server, NoSQL databases (MongoDB).
Introduction to programming (mainly C and Pascal).
Probabilistic models and statistics.

REVIEWING:

Journals: *Artificial Intelligence in Medicine*; *Journal of Biomedical Informatics*; *Statistics in Medicine*; *IEEE Transactions on Knowledge and Data Engineering*; *IEEE Transactions on on Systems, Man, and Cybernetics-Part C: Applications and Reviews*; *IEEE Access*; *Decision Support Systems*; *International Journal of Approximate Reasoning*; *Journal of Intelligent Information Systems*; *Statistics in Medicine*.

Workshops and Conferences: *AIME-2011 ProBioMed Workshop*; *UAI-2011 Bayesian Modelling Applications Workshop*; *HEALTHINF 2018: 11th International Conference on Health Informatics*; *HEALTHINF 2019: 12th International Conference on Health Informatics*; *HEALTHINF 2020: 13th International Conference on Health Informatics*.

Scientific grant proposals: *Netherlands Organization for Scientific Research*; *Croatian Science Foundation*.

PROGRAM COMMITTEE:

Workshop on Towards Smarter Health Care: Can Artificial Intelligence Help? November 29, 2021 (co-located with AIxIA 2021: 20th International Conference Italian Association for Artificial Intelligence), Milano, Italy
HEALTHINF 2020: 13th International Conference on Health Informatics (HEALTHINF is part of BIOSTEC, the 13th International Joint Conference on Biomedical Engineering Systems and Technologies), 24-26 February, 2020, Valletta, Malta
HEALTHINF 2019: 12th International Conference on Health Informatics (HEALTHINF is part of BIOSTEC, the 12th International Joint Conference on Biomedical Engineering Systems and Technologies), 22-24 February, 2019, Prague, Czech Republic
HEALTHINF 2018: 11th International Conference on Health Informatics (HEALTHINF is part of BIOSTEC, the 11th International Joint Conference on Biomedical Engineering Systems and Technologies), 19-21 January, 2018, Funchal, Madeira, Portugal
IEA/AIE 2017: Workshop on 30th International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems, special track: Graphical Models: From Theory to Applications, 2017, Arras, France
IJCAI 2015: Workshop on Sensitivity Analysis and Robustness in Probabilistic Graphical Models, July 25-27, 2015, Buenos Aires, Argentina
AIME 2011: Workshop on Probabilistic Problem Solving in Biomedicine, July 2, 2011 Bled, Slovenia
UAI 2011: The 8th Bayesian Modelling Applications Workshop July 14, 2011 Barcelona, Spain

HONORS:

Polish Society for Computer Simulation award, December 1996.
Best Young Investigator Paper award for the paper "HEPAR and HEPAR II - computer systems supporting diagnosis of liver disorders." The Twelfth Conference on Biocybernetics and Biomedical Engineering, Warsaw, Poland, November 28-30, 2001.
Best Young Investigator Paper award for the paper "A Bayesian Network Model for Diagnosis of Liver Disorders." The Eleventh Conference on Biocybernetics and Biomedical Engineering, Warsaw, Poland, December 2-4, 1999.
Białystok University of Technology Award for scientific achievements, Białystok, October 2016.
The Papanicolaou Institute for Cytopathology award, educational grant, March 2008.
Białystok University of Technology Award for scientific achievements and receiving a doctoral degree, Białystok, October 2003.
Listed in Marquis *Who's Who in the World*.

RESEARCH GRANTS:

Polish Committee for Scientific Research grant: *Expert System for Diagnosis of BPH and Prostate Cancer*, grant no. 3T10C03529, 2005–2008 (four years).
NATO-NSF Postdoctoral Award, grant no. 0411692, 2005–2006 (one year).
Polish Committee for Scientific Research grant: *Probabilistic Causal Models in Medicine: Application to Diagnosis of Liver Disorders*, grant no. 4T11E05522, 2002–2003 (one year).

LANGUAGES:

Fluent in English and Polish. Good knowledge of Spanish and passive knowledge of German and Russian.

PROFESSIONAL SOCIETIES:

Association for Pathology Informatics
American Society for Cytopathology
Polish Society of Computer Simulation

PUBLICATIONS (selected):

Journals:

TE Jones, Agnieszka Onisko, R. Marshall Austin, Jing Yu. Change of Practice Patterns Following An Educational Comment on Reports of Benign-Appearing Endometrial Cells in Pap Tests: An Institutional Experience. *American Journal of Clinical Pathology*, 2022, 157 (3): 413-416.

Terrell E Jones, Agnieszka Onisko and R. Marshall Austin. Personalized Medicine and Cervical Screening: Development of Individualized Quantitative Risk Assessments for Cervical Adenocarcinoma and Adenocarcinoma-In-Situ, *Acta Cytologica*, 2021, 65 (2), 158-164.

TE Jones, D Pradhan, DJ Dabbs, R Bhargava, A Onisko, MW Jones. Immunohistochemical Markers With Potential Diagnostic, Prognostic, and Therapeutic Significance in Uterine Carcinosarcoma: A Clinicopathologic Study of 43 Cases. *International Journal of Gynecological Pathology*, 2021, 40 (1), 84-93.

R Marshall Austin, Agnieszka Onisko, Chengquan Zhao. Are CIN3 risk or CIN3+ risk measures reliable surrogates for invasive cervical cancer risk? *Journal of the American Society of Cytopathology*, 2020, 9 (6), 602-606.

Harvey W Kaufman, Damian P Alagia, Zhen Chen, Agnieszka Onisko, R Marshall Austin. Contributions of Liquid-Based (Papanicolaou) Cytology and Human Papillomavirus Testing in Cotesting for Detection of Cervical Cancer and Precancer in the United States. *American Journal of Clinical Pathology*, 2020; 154 (4), 510-516.

Farchoukh L, Onisko A, Austin RM. Individualized Risk Assessment for Cervical Squamous Neoplasia. *Journal of Pathology Informatics* vol. 11, 2020.

W. Łaguna, J. Baginska, A Onisko. Bayesian Network Modeling in Discovering Risk Factors of Dental Caries in Three-Year-Old Children. *Progress in Health Sciences*, 2019 9 (1), 118-126.

Agnieszka Onisko, Marek J. Druzdzel, R. Marshall Austin. Application of Bayesian network modeling to pathology informatics. *Diagnostic Cytopathology*, 2019; 47(1):41-47.

Beth Clark, Agnieszka Onisko, Binara Assylbekova, Xin Li, Rohit Bhargava, David Dabbs. Breast Cancer Global Tumor Biomarkers: A Quality Assurance Study of Intratumoral Heterogeneity. *Modern Pathology*, 2019; 32 (3), 354-366.

Austin RM, Onisko A, Zhao C. Enhanced Detection of Cervical Cancer and Precancer Through Use of Imaged Liquid-Based Cytology in Routine Cytology and HPV Cotesting. *Am J Clin Pathol*, 2018 Oct 1;150(5):385-392.

Dabbs DJ, Clark BZ, Serdy K, Onisko A, Brufsky AM, Smalley S, Perkins S, Bhargava R. Pathologist's healthcare value in the triage of Oncotype DX testing: a value-based pathology study of tumour biology with outcomes. *Histopathology*, 2018 Oct;73(4):692-700.

Clark BZ, Yoest JM, Onisko A, Dabbs DJ. Effects of Hydrochloric Acid and Formic Acid Decalcification on Breast Tumor Biomarkers and HER2 Fluorescence In Situ Hybridization. *Applied Immunohistochemistry Molecular Morphology*, 2017; 27 (3), 223-230.

Jing Yu, Agnieszka Onisko, R. Marshall Austin. Negative Predictive Value and Significance of Benign-Appearing Endometrial Cells in Papanicolaou Tests. *American Journal of Clinical Pathology*, 2017;148(3):274-279.

Agnieszka Onisko, Marek J. Druzdzel, 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*, 2016;7:50.

R. Marshall Austin, Agnieszka Onisko. *Increased Cervical Cancer Risk Associated with Extended Screening Intervals after Negative Human Papilloma Virus (HPV) Test Results: Bayesian Risk Estimates using the Pittsburgh Cervical Cancer Screening Model. Journal of American Society of Cytopathology*, 5(1):9-14, Jan-Feb 2016.

Justyna Szczygiel, Agnieszka Oniśko, Jolanta Swiderska, Elzbieta Krysiewicz, Jerzy Sienkiewicz. *Probabilistic graphical model supporting early diagnosis of autism spectrum disorder*, *Advances in Computer Science Research*, 11:151-164, 2014.

Agnieszka Onisko, Marek J. Druzdzel. *Impact of Precision of Bayesian Networks Parameters on Accuracy of Medical Diagnostic Systems*, *Artificial Intelligence in Medicine*, 57(3):197-206, 2013.

Mirka W. Jones, Agnieszka Onisko, David J. Dabbs, Esther Elishaev and Rohit Bhargava. *Immunohistochemistry and HPV in situ hybridization in distinction between endocervical and endometrial adenocarcinoma: A comparative tissue microarray study of 76 tumors*, *International Journal of Gynecological Cancer*, 23(2):380-4, 2013.

Jing Yu, Sara E. Monaco, Agnieszka Onisko, Rohit Bhargava, David J. Dabbs, Kathleen M. Cieply, Jeffrey L. Fine. *A Validation Study of Quantum Dot Multispectral Imaging to Evaluate Hormone Receptor Status in Ductal Carcinoma In Situ (DCIS) of the Breast*, *Human Pathology*, 44(3): 394-401, 2013.

Chengquan Zhao, Xiangbai Chen, Agnieszka Onisko, Anisa Kanbour, R Marshall Austin. *Follow-up outcomes for a large cohort of U.S. women with negative imaged liquid-based cytology findings and positive high risk human papillomavirus test results. Gynecologic Oncology*, 122(2):291-6, 2011.

R. Marshall Austin, Agnieszka Onisko, Marek J. Druzdzel. *Pittsburgh Cervical Cancer Screening Model: A Risk Assessment Tool. Arch Pathol Lab Med*, 134(5):744-50, 2010.

Zhao C, Florea A, Onisko A, Austin RM. *Histologic Follow-up Results in 662 Patients with Pap Test Findings of Atypical Glandular Cells: Results From a Large Academic Womens Hospital Laboratory Employing Sensitive Screening Methods. Gynecologic Oncology*, 114(3):383-9, 2009.

Rohit Bhargava, Joan Striebel, Sushil Beriwal, John C. Flickinger, Agnieszka Onisko, Gretchen Ahrendt and David J. Dabbs. *Prevalence, Morphologic Features and Proliferation Indices of Breast Carcinoma Molecular Classes Using Immunohistochemical Surrogate Markers. Int J Clin Exp Pathol* 2(5), 444-455; 2009.

Carmen Lacave, Agnieszka Oniśko, Francisco J. Díez. *Building and debugging Bayesian networks with Elvira. Knowledge-Based Systems*, Elsevier, vol. 19(8): 730–738, 2006.

Jaroslaw Makal, Andrzej Nazarkiewicz, Agnieszka Oniśko, Piotr Orzechowski. *Expert system for diagnosis of Benign Prostatic Hyperplasia. Journal of Automation and Measurements* (in Polish) No. 7/8, pages 193–196, 2004.

Hanna Wasyluk and Agnieszka Oniśko *Computer educational program for diagnosis of liver diseases of liver diseases based on HEPAR II Medical Science Monitor*, 9(Suppl. 1), May 2003.

Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *Learning Bayesian network parameters from small data sets: Application of Noisy-OR gates. International Journal of Approximate Reasoning*, 27(2):165–182, 2001.

Hanna Wasyluk, Agnieszka Oniśko and Marek J. Druzdzel. *Support of diagnosis of liver disorders based on a causal Bayesian network model. Medical Science Monitor*, 7(Suppl. 1):327–332, May 2001.

Journal abstracts:

TE Jones, A Onisko, J Yu. *Change of Practice Patterns Following Reports of Benign-Appearing Endometrial Cells in Pap Tests: An Institutional Experience.* Laboratory Investigation 99, 2019.

L Farchoukh, A Onisko, RM Austin. *Individualized Bayesian Risk Assessment for Cervical Squamous Neoplasia.* Journal of the American Society of Cytopathology 9 (6), S22-S23, 2020.

T Jones, A Onisko, RM Austin. *Personalized Medicine and Cervical Screening: Development of Individualized Quantitative Risk Assessments for Cervical Adenocarcinoma In Situ and Cervical Adenocarcinoma.* Laboratory Investigation 99, 2019.

M Han, RM Austin, A Onisko. *Verification Bias-adjusted Cervical Screening Test Sensitivity Associated with Cervical Cancer Audit Based Screening*, Journal of the American Society of Cytopathology 7 (5), S66-S67, 2018.

David J. Dabbs, Agnieszka Onisko, Binara Assylbekova, Xin Li, Rohit Bhargava, Beth Z. Clark. *Breast Cancer Global Tumor Biomarkers: A Quality Assurance Study of Intratumor Heterogeneity*, United States and Canadian Academy of Pathologys 106th Annual Meeting, March 4-10, 2017, San Antonio, TX, USA.

E Statz, D Dabbs, D Pradhan, A Onisko, MW Jones. *PD-L1, p16, and PTEN Expression Profiles in Uterine Smooth Muscle Tumors and Their Diagnostic and Therapeutic Implications*, Modern Pathology 31:454, 2018.

Dinesh Pradhan, David J. Dabbs, Rohit Bhargava, Agnieszka Onisko, Michelle Stram, Mirka W. Jones. *Clinical and Immunohistochemical Study of Uterine Carcinosarcoma in a Large Academic Women Center*, American Society for Clinical Pathology (ASCP) Annual Meeting, September 14-16, Las Vegas, NV, USA, American Journal of Clinical Pathology, 146, sup. 1, page: 308, 2016.

Jing Yu, Agnieszka Oniśko, and R. Marshall Austin. *Bethesda System Reporting of Benign-Appearing Endometrial Cells in Women 40 and Older: Analysis of Predictive Value from a Large Academic Women's Hospital Database*, United States and Canadian Academy of Pathologys 105th Annual Meeting, March 12-18, Seattle, WA, USA, Laboratory Investigation 96: 123A, 2016.

Mirka W. Jones, Michelle Stram, Agnieszka Oniśko, Rohit Bhargava, David J. Dabbs. *The Use of Immunohistochemistry in Distinction between Clear Cell and Squamous Differentiation in Adenocarcinoma of the Endometrium*, United States and Canadian Academy of Pathologys 105th Annual Meeting, March 12-18, Seattle, WA, USA, Laboratory Investigation 96: 311A-312A, 2016.

Gabriela Quiroga Garza, Agnieszka Oniśko, and R. Marshall Austin. Verification bias-adjusted Cervical Screening Test Sensitivity for Histopathologic High Grade Cervical Intraepithelial Neoplasia and Cervical Cancer in a Large Academic Womens Hospital Laboratory, United States and Canadian Academy of Pathologys 103rd Annual Meeting, March 1-7, 2014, San Diego, CA, USA, Laboratory Investigation, vol. 94, sup. 1, pages: 117A.

Erika Rodriguez, Agnieszka Oniśko, and R. Marshall Austin. *The Pittsburgh Cervical Cancer Screening Model Indicates That Patient History Significantly Impacts Future Cervical Cancer Risk in Patients with Current Negative HPV Results*, United States and Canadian Academy of Pathologys 102nd Annual Meeting, March 2-8, 2013, Baltimore, MD, USA, Modern Pathology, vol. 26, Sup. 2, pages: 101A.

Mirka W. Jones, Giuliana Trucco, Agnieszka Oniśko, Rohit Bhargava, David J. Dabbs. *PTEN and P16 Expression Highlights Atypia and Malignant Transformation in Smooth Muscle Tumors of the Uterus*, United States and Canadian Academy of Pathologys 102nd Annual Meeting, March 2-8, 2013, Baltimore, MD, USA.

R. Marshall Austin, Agnieszka Oniśko, Marek J. Druzdzel. *Patient History Dependent Risk Assessments for Cervical Pre-cancer and Invasive Cancer Using the Pittsburgh Cervical Cancer Screening Model*, *Journal of the American Society of Cytopathology*, vol. 1, issue 1, Supplement, Pages S3-S4, November 2012.

Frank Schneider, Agnieszka Oniśko, R. Murali. *Diagnostic Certainty of a Mesothelioma Diagnosis Based on Immunophenotype*, *Modern Pathology*, vol. 25, Supplement 2, page 490A, February 2012.

Chengquan Zhao, Xiangbai Chen, Baoying Weng, Agnieszka Oniśko, R. Marshall Austin. *Analysis of 70,123 Negative Pap Tests with high risk HPV co-test Results*, *CytoJournal*, vol. 8, issue 1, November 2011, page 16.

Liron Pantanowitz, Agnieszka Oniśko, R. Marshall Austin. *Screening for Cervical Cancer Using Data*, *Critical Values* Magazine of American Society for Clinical Pathology, vol. 4, issue 2, April 2011, pages 20-22.

J. Picarsic, A. Brufsky, Agnieszka Oniśko, M. Chivukula. *Predictors of invasive breast cancer or DCIS recurrence in estrogen receptor positive (ER+) and estrogen receptor negative (ER-) ductal carcinoma in situ (DCIS) patients with and without associated invasive carcinoma (IC)*, Journal of Clinical Oncology, vol 27, no 15S, May 20 Supplement, 2009.

R. Marshall Austin, Agnieszka Oniśko, Marek J. Druzdzel. *The Pittsburgh Cervical Cancer Screening Model*, *Cancer Cytopathology*, vol. 114, issue 5, October 2008, supplement, page 345.

Amal Kanbour-Shakir, Agnieszka Oniśko, R. Marshall Austin. *High Risk HPV Test Results Preceding 500 Cases of Biopsy Proven High Grade Cervical Squamous Dysplasia (CIN 2/3)*, *Cancer Cytopathology*, vol. 114, issue 5, October 2008, supplement S, page 345-346.

R. Marshall Austin, Agnieszka Oniśko, Marek J. Druzdzel. *Bayesian Network Model Analysis as a Quality Control and Risk Assessment Tool in Cervical Cancer Screening.* 2008 Biennial Meeting of ASCCP. Meeting Abstracts, *Journal of Lower Genital Tract Disease.* 12(2):153–179, April 2008.

Rohit Bhargava, Joan Striebel, Agnieszka Oniśko, Kim McManus, David J Dabbs. *Ki-67 labeling index in breast carcinoma: An immunohistochemical study with correlation to molecular subtypes. Journal of Clinical Oncology.* 2008;26:May 20 supplement-Abstract 22107.

Jaroslaw Makal, Andrzej Nazarkiewicz, Robert Kozlowski, Agnieszka Oniśko, Adam Idzkowski. *The interactive database of patients with lower urinary tract symptoms. Polish Urology* (in Polish), T.60, supl.1 (2007), p.51, 2007.

Book chapters:

Agnieszka Oniśko. *Knowlede engineering in building Bayesian network models in medicine*, In Agnieszka Oniśko (eds.), *Selected topics in technical informatics. Modeling and information processing under uncertainty*, pages 49–59, 2021 (in Polish).

Agnieszka Oniśko and Marek J. Druzdzel. *Application of Bayesian network models in medicine*, In Kurzynski Marek [i in.] (eds.), *Biomedical Engineering: Foundations i applications*, vol. T. 7, pages 437–452, 2019 (in Polish).

Agnieszka Oniśko and R. Marshall Austin. *Dynamic Bayesian Network for Cervical Cancer Screening*, In Peter J.F. Lucas and Arjen Hommersom(eds), *Foundations of Biomedical Knowledge Representations. Methods and Applications*, Springer, Lectures Notes in Artificial Intelligence 9521, pages 207–218, 2015.

Agnieszka Oniśko, Allan Trucker, and Marek J. Druzdzel. *Prediction and Prognosis of Health and Disease*, In Peter J.F. Lucas and Arjen Hommersom(eds), *Foundations of Biomedical Knowledge Representations. Methods and Applications*, Springer, Lectures Notes in Artificial Intelligence 9521, pages 181–188, 2015.

Agnieszka Oniśko. *Medical Diagnosis*, In Patrick Naim, Olivier Pourret, and Bruce Marcot(eds), *Bayesian Networks: A Practical Guide to Applications*, Wiley Sons, pages 15–32, March 2008.

Agnieszka Oniśko, Garrick L. Wallstrom, and Michael M. Wagner. *Decision Analysis.* In *Handbook of Biosurveillance.* ed. M. Wagner, A. Moore, and R. Aryel. New York, Elsevier, pages 405–417, 2006.

Garrick Wallstrom, Michael M. Wagner, Agnieszka Oniśko. *Probabilistic interpretation of surveillance data.* In *Handbook of Biosurveillance.* ed. M. Wagner, A. Moore, and R. Aryel. New York, Elsevier, pages 417–422, 2006.

Bruce Y. Lee, Michael M. Wagner, Agnieszka Oniśko, Vahan Grigoryan. *Economic Studies in Biosurveillance.* In *Handbook of Biosurveillance.* ed. M. Wagner, A. Moore, and R. Aryel. New York, Elsevier, pages 423–435, 2006.

Major peer reviewed conferences:

Agnieszka Onisko, Marek J. Druzdzel: Impact of Bayesian network model structure on the accuracy of medical diagnostic systems, Proceedings of 13th International Conference on Artificial Intelligence and Soft Computing (ICAISC2014), eds. Leszek Rutkowski, Marcin Korytkowski, Rafal Scherer, Ryszard Tadeusiewicz, Lofti A. Zadeh, Jacek M. Zurada, Heidelberg, Springer, Lecture Notes in Computer Science, Vol. 8467, pages 167–178, Zakopane, June 1-5, 2014.

Michael M. Wagner, Garrick Wallstrom and Agnieszka Oniśko. *Issue a Boil-Water Advisory or Wait for Definitive Information? A Decision Analysis.* In Proceedings of the 2005 Annual Symposium of the American Medical Informatics Association (AMIA-2005), Washington, D.C., October 22–26, 2005.

Agnieszka Oniśko, Peter Lucas and Marek J. Druzdzel. *Comparison of rule-based and Bayesian network approaches in medical diagnostic systems.* Proceedings of the Eighth Annual Conference on Artificial Intelligence in Medicine (AIME–2001), S. Quaglini, P. Barahona, S. Andreassen (eds.) *Artificial Intelligence in Medicine*, *Lecture Notes in Computer Science* Subseries, Springer Verlag, pages 281–292, 2001.

Marek J. Druzdzel, Agnieszka Oniśko, Daniel Schwartz, John N. Dowling and Hanna Wasyluk. *Knowledge engineering for very large decision-analytic medical models.* In *Proceedings of the 1999 Annual Symposium of the American Medical Informatics Association (AMIA–1999)*, page 1049, Washington, D.C., November 6–10, 1999.

Other reviewed conferences and workshops (selected):

Gabriel Mackiewicz and Agnieszka Oniśko. *The impact of structural and numerical quality of Bayesian network models on their accuracy.* In *Working Notes of the Conference on Risk and Decision-Making*, Wellington, New Zealand, November 13-14, 2019.

Agnieszka Oniśko. *Modeling Uncertain Medical Knowledge with Bayesian Networks: Engineering and Applications.* In *Lecture Notes of the ICB Seminar. 147th ICB Seminar. Tenth International Seminar Statistics and Clinical Practice*, pages: 57-61, Warsaw, May 15-18, 2016.

Agnieszka Oniśko and Marek J. Druzdzel. *Impact of Quality of Bayesian Networks Parameters on Accuracy of Medical Diagnostic Systems: An Empirical Study.* In *Working Notes of the Workshop Probabilistic Models in Biomedicine. European Conference on Artificial Intelligence in Medicine (AIME–11)*, Bled, Slovenia, 2011.

Marek J. Druzdzel and Agnieszka Oniśko. In *Working Notes of the Workshop (UAI–08)*, *The Impact of Overconfidence Bias on Practical Accuracy of Bayesian Network Models: An Empirical Study.* In *Working Notes of the 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, 9 July 2008.

Marek J. Druzdzel and Agnieszka Oniśko. *Methods for learning diagnostic and risk assessment models from data*, 99th ICB Seminar, 7th International Seminar on Statistics and Clinical Practice, Warsaw, June 20 - 21, 2008.

Agnieszka Oniśko and Marek J. Druzdzel. *Effect of Imprecision in Probabilities on Bayesian Network Models: An Empirical Study.* In *Working Notes of the Workshop Qualitative and Model-based Reasoning in Biomedicine. European Conference on Artificial Intelligence in Medicine (AIME–03)*, Protaras, Cypr 2003.

Hanna Wasyluk, Agnieszka Oniśko and Marek J. Druzdzel. *Application of a Computer-based Diagnostic Tool to Training General Practitioners*, 68th ICB Seminar on Statistics and Clinical Practice, Warsaw, June 3-6, 2002.

Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *An experimental comparison of methods for handling incomplete data in learning parameters of Bayesian networks.* In *Intelligent Information Systems 2002: Proceedings of the IIS'2002 Symposium*, M. Klopotek, S.T. Wierzchoń, M. Michalewicz (eds.), pages 351–360, *Advances in Soft Computing* Series, Physica-Verlag (A Springer-Verlag Company), Heidelberg, 2002.

Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *HEPAR and HEPAR II — computer systems supporting a diagnosis of liver disorders.* In *Proceedings of the Twelfth Conference on Biocybernetics and Biomedical Engineering*, Warsaw, Poland, November 28–30, 2001 (Best Young Investigator Paper award).

Agnieszka Oniśko. *Evaluation of the Hepar II System for Diagnosis of Liver Disorders.* In *Working notes on the European Conference on Artificial Intelligence in Medicine (AIME-01) Workshop Bayesian Models in Medicine*, Cascais, Portugal, July 1, 2001.

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.

Agnieszka Oniśko, Marek J. Druzdzel and Hanna Wasyluk. *A Bayesian network model for diagnosis of liver disorders.* In *Proceedings of the Eleventh Conference on Biocybernetics and Biomedical Engineering*, pages 842–846, Warsaw, Poland, December 2–4, 1999 (Best Young Investigator Paper award).

ORAL PRESENTATIONS:

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

Nov 2021 *Challenges in Modeling Medical Knowledge with Bayesian Networks*, invited speaker, The Workshop on Towards Smarter Health Care: Can Artificial Intelligence Help? Nov 29 2021, Milan, Italy.

Nov 2019 *The impact of structural and numerical quality of Bayesian network models on their accuracy.* The Conference on Risk and Decision-Making, Nov 13-14 2019, Wellington, New Zealand.

May 2016 *Modeling Uncertain Medical Knowledge with Bayesian Networks: Engineering and Applications.* 147th ICB Seminar. Tenth International Seminar on Statistics and Clinical Practice, May 15-18 2016, Warsaw, Poland.

Oct 2012 *Dynamic Bayesian Network Modelling for Cervical Cancer Screening.* The Workshop "Foundations of Biomedical Knowledge Representation", Leiden, The Netherlands, Oct 29 - Nov 2, 2012.

Dec 2011 *Bayesian Modelling for Clinical Decision Support when Screening for Cervical Cancer.* The Workshop "Can Systems Biology Aid Personalized Medication?" Diabetes and Integrative Systems Biology Group, Linköping, Sweden, December, 5th 2011.

Jul 2011 *Application of Dynamic Bayesian Networks to Cervical Cancer Screening*, UNED, Madrid, Spain.

Nov 2009 *Application of Dynamic Bayesian Networks to Cervical Cancer Screening*, Faculty of Computer Science, Białystok University of Technology, Białystok, Poland.

Mar 2007 *Introduction to Bayesian Networks*, Department of Pathology, Magee-Womens Hospital, University of Pittsburgh Medical Center, Pittsburgh, PA, USA.

Sep 2004 *How beneficial can a medical decision support system be?*, Department of Information Science and Telecommunications Colloquium Series, University of Pittsburgh, Pittsburgh, PA, USA.

May 2003 *Introduction to Bayesian networks: Applications to medicine*, Department of Anesthesiology and Intensive Unit Care, Warsaw Medical University, Warsaw, Poland.

Feb 2001 *Canonical probabilistic models. Application: HEPAR, a Bayesian network for diagnosis of liver disorders*, UNED, Madrid, Spain.

Feb 2000 *Knowledge Engineering for Medical Bayesian Models: Application to Diagnosis of Liver Disorders*, Department of Information Science and Telecommunications Seminars, University of Pittsburgh, Pittsburgh, PA, USA.

Sep 1999 *Building Probabilistic Decision Models: Application to Diagnosis of Liver Disorders*, Department of Information Science and Telecommunications Seminars, University of Pittsburgh, Pittsburgh, PA, USA.

Feb 1999 *DIAVAL, a Bayesian Expert System for Echocardiography*, Center for Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA, USA.