

Olha Bodnar — Ph.D., *Dr. Habil.*, Associate Professor

❖ Education

Jun 2010 *Habilitation*, Econometrics and Statistics, European University Viadrina, Frankfurt (Oder), Germany.

Jul 2005 *Ph.D.*, Department of Statistics, European University Viadrina, Frankfurt (Oder), Germany. Ph.D. Thesis: *CUSUM Control Charts for Multivariate Financial Time Series*. Ph.D. Supervisor: Prof. Dr. Wolfgang Schmid.

Jun 2001 *M.Sc.*, Department of Mathematics, Lviv National University, Ukraine. M.Sc. Thesis: *Portfolio Selection in the Transition Economy*. M.Sc. Supervisor: Prof. Jaroslav Yelejko.

Jun 1996 *Diploma*, Lviv Physics and Mathematics Lyceum, Lviv, Ukraine.

❖ Professional Experience

Aug 2019 – *Associate Professor*, Unit of Statistics, School of Business, Örebro University, Örebro, Sweden.

Mar 2018 – **Jul 2019** *Associate Professor*, Division of Applied Mathematics, School of Education, Culture, and Communication, Mälardalen University, Västerås, Sweden.

Feb 2019 – **Mar 2019** *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Jul 2018 – **Aug 2018** *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Sep 2017 – **Oct 2017** *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Jun 2017 – Jul 2017 *Guest Lecturer*, Department of Statistics, European University Viadrina, Frankfurt (Oder).

Sep 2016 – May 2017 *Guest Lecturer*, Department of Mathematics, Humboldt University of Berlin.

Oct 2010 – May 2018 *Researcher (Permanent Position)*, Mathematical Modeling and Data Analysis, Physikalisch-Technische Bundesanstalt (PTB, National Metrology Institute of Germany), Berlin, Germany.

Sep 2006 *Guest Researcher*, Department of Management and Information Technology, University of Bergamo, Bergamo, Italy.

Apr 2005 – Sep 2010 *Research Assistant*, Department of Statistics, European University Viadrina, Frankfurt (Oder), Germany.

Aug 2002 – Dec 2004 *Ph.D. Student*, Department of Statistics, European University Viadrina, Frankfurt (Oder), Germany.

Oct 2001 – July 2002 *Research Assistant*, Department of Statistics, European University Viadrina, Frankfurt (Oder), Germany: *Statistics Interactively! (Statistik Interaktiv!)* (Multimedia Teaching Program).

Mar 2001 – Aug 2001 *Specialist*, Risk Department, Western Ukrainian Commercial Bank, Lviv, Ukraine.

❖ Research Interests

- Bayesian Statistics
- Spatio-Temporal Models
- Data Analysis in Measurement Science
- Multivariate Time Series Analysis
- Statistics in Medicine
- Environmental Statistics
- Statistical Process Control
- Statistics in Economics and Finance

❖ University Teaching Experience

“U” indicates undergraduate courses, and “G” graduate courses.

2019–2020 Statistical Theory — Advanced Level, Part I (Lectures and Exercises, G); Econometrics (Lectures and Exercises, G); Master Thesis Course I (Course Coordinator, G); Econometrics (Lectures and Exercises, U); Master Thesis Course II (Course Coordinator, G)

2018–2019 Methods of Statistical Inference (Lectures and Exercises, U), Time Series Analysis (Lectures and Exercises, G); Calculus of Several Variables (Lectures and Exercises, U); Mathematics for Economics and Business Statistics (Lectures and Exercises, U); Portfolio Theory (Lectures and Exercises, G)

2016–2017 Methods of Statistics (Lectures and Exercises, U); Statistics (Lectures and Exercises, G).

2009–2010 Computer Data Analysis (Lectures and Exercises, G).

2008–2009 Quality Control (Lectures and Exercises, G).

2002 Statistics — using *Statistik Interaktiv!* (Exercises, U).

2003 Time Series Analysis (Exercises, G).

❖ Supervision of PhD Students

Main supervisor Ph.D. thesis on *Hierarchical Bayesian Models and Spatio-Temporal Processes in Data Analysis*, by Rebecca Nalule Muhumuza (ongoing).

❖ Supervision of Master Students

Supervisor Master’s thesis on *Machine Learning Based Approach to Predict Important Factors Involved in Liver Disease*, by Borzou Yarikamrani.

Supervisor Master’s thesis on *Bayesian Model Selection*, by Viktor Eriksson (ongoing).

Supervisor Master’s thesis on *Application of Structural Equation Modeling (SEM) Approach in Clinical Studies*, by Natalia Ogorodnikova (ongoing).

Supervisor Master's thesis on *Stock Price Evaluation with Target Price Using Machine Learning*, by Mattias Holm (ongoing).

Supervisor Master's thesis on *Artificial Neural Network versus Non-Linear Regression Model*, by Borzou Yarikamrani (ongoing).

Supervisor Master's thesis on *Sustainability for portfolio optimisation*, by Aso-mani Kwadwo Anane.

Co-Supervisor Master's thesis on *Stochastic model identification and model metrics with applications in equity-commodity prices*, by Berk Alp Yilmaz.

Co-Supervisor Master's thesis on *Tensor Applications in Portfolio Optimization*, by Mengxin Liu.

Examiner Master's thesis on *Predictive Modeling and Classification for Stroke Using the Machine Learning Methods*, by Sonya Mirzaikamrani.

Examiner Master's thesis on *Analysis of Pupils' Commuting Patterns: From Individual to Regional Levels in Sweden*, by Walaa Qabaha.

Examiner Master's thesis on *Discrete Choice Modeling Based on Utility Theory to Explain Response Propensity in Sampling Surveys*, by Mattias Holm.

❖ International Research Visits

Feb 2019 – Mar 2019 *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Jul 2018 – Aug 2018 *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Sep 2017 – Oct 2017 *Guest Researcher*, Statistical Engineering Division, NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA.

Jun 2017 – Jul 2017 *Guest Lecturer*, Department of Statistics, European University Viadrina, Frankfurt (Oder).

Sep 2016 – May 2017 *Guest Lecturer*, Department of Mathematics, Humboldt University of Berlin.

Sep 2006 *Guest Researcher*, Department of Management and Information Technology, University of Bergamo, Bergamo, Italy.

❖ Professional Service

Reviewer Advances in Statistical Analysis (AStA), Computational Statistics and Data Analysis, International Journal of Applied Mathematics and Computer Science, Journal of Applied Statistics, Journal of Multivariate Analysis, Measurement, Measurement Science Review, Metrologia, Quantitative Finance, Statistics.

Member Editorial board of the Ukrainian Metrological Journal.

Statistical Consulting Key Comparisons CCM.P-K12 (PTB Working Group 7.54), CCM.M-K6 (PTB Working Group 1.81), CCPR-K2 (PTB Working Group 7.33), CCM.T-K2 (PTB Working Group 1.22), EURAMET.T-K8 (PTB Working Group 3.2), COOMET.PR-S2 (PTB Working Group 4.21), CCM.FF-K6 (PTB Working Group 1.43).

Statistical Consulting Modeling and data analysis for He/Xe EDM Measurements (PTB Working Group 8.2), Measurements of Ionizing Radiation (PTB Working Group 6.3), MRI Measurements (PTB Working Group 8.12).

❖ Representation in National and International Committees

Delegate BIPM (Bureau international des poids et mesures – International Bureau of Weights and Measures) JCGM (Joint Committee for Guides in Metrology) Working Group

Delegate IUPAC (International Union of Pure and Applied Chemistry)

Delegate COOMET: TC1.1 “General questions concerning measurements (General metrology).”

Delegate AK SIGMA: GAK 967.2.1 “Characteristic Values for the Measurement of Ionizing Radiation.”

❖ Organization of Conferences and Scientific Meetings

Sep–Oct, 2019 Co-organizer of Section on Stochastic Processes & Modern Statistical Methods for Theory and Practice, in the “International confer-

ence on Stochastic Processes and Algebraic Structures — From Theory Towards Applications” (SPAS 2019), Västerås, Sweden.

Sep 2019 Organizer of Section on Bayesian Statistics in the conference “Statistische Woche” (annual conference of the German Statistical Society), Trier, Germany.

May 2019 Co-organizer of Spring Meeting of Working Group 1 (GUM) of the Joint Committee for Guides in Metrology (JCGM), Västerås, Sweden.

Nov 2018 Co-organizer of MAM Workshop in Probability Theory, Mathematical Statistics and Applications, in the Research Environment in Mathematics and Applied Mathematics, MAM, Division of Applied Mathematics, School of Education, Culture and Communication, Mälardalen University, jointly with A. Malyarenko and S. Silvestrov.

May 2018 Co-organizer of the International Seminar “Mathematics, Statistics and Computation to Support Measurement Quality”, St. Petersburg, Russia.

Sep 2016 Co-organizer of Section on Bayesian Statistics in the conference “Statistische Woche” (annual conference of the German Statistical Society), Augsburg, Germany.

❖ Organization of Meetings and International Cooperation

- Antonio Possolo, Ph.D., NIST Fellow and Chief Statistician National Institute of Standards and Technology, USA, was invited to visit PTB regularly several times per year starting from 2014 to 2018. The topics of collaboration are meta-analysis of medical studies, determination of the reference values for fundamental physical constants, guidelines for the international inter-laboratory key comparisons.
- Wolfgang Schmid, Prof. Dr., Department of Statistics, European University Viadrina, Germany, was invited to PTB for the discussion of the application for DFG (German Research Foundation) research grant of joint projects and joint supervising of PhD students.
- Anna Chunovkina, Ph.D., Head of Research Laboratory of Theoretical Metrology, VNIIM, Russia, was invited to visit PTB several times during 2012-2013. The topics for collaboration are regional key comparisons and agreement between the guidelines and ISO-Norms in EURAMET and COOMET.

❖ Scientific Projects/Grants

- Research Proposal on *Novel Bayesian Approaches for Random Effects Meta-Analysis* — submitted to the Swedish Research Council (VR) in April 2020.
- Project *Novel Bayesian Inference Procedures for Stochastic Models with Latent Variables*, "Rörling Resurs" at the Örebro University, 35% for research time in 2020.
- Project *Statistical Models and Data Reductions to Estimate Standard Atomic Weights and Isotopic Ratios for the Elements, and to Evaluate the Associated Uncertainties* (with A. Possolo, J. Meija, B. Toman), IUPAC (International Union of Pure and Applied Chemistry) project No. 2019-024-1-200, since December 2019.

❖ Awards

- Visiting Scholarship for Research Activities, Statistical Engineering Division, NIST: National Institute of Standards and Technology, USA, 2018.
- Helmholtz Award for Outstanding Research, Berlin, Germany, 2017.
- Visiting Scholarship for Research Activities, Statistical Engineering Division, NIST: National Institute of Standards and Technology, USA, 2017.
- Helmholtz Award for Outstanding Research, Berlin, Germany, 2014.
- Award for the Research Initiative, Stiftung European University Viadrina, Frankfurt (Oder), Germany, 2009.
- Visiting Scholarship for Research Activities, the Department of Management and Information Technology, University of Bergamo, Bergamo, Italy, September 2006.
- Doctoral Scholarship at the European University Viadrina, Frankfurt (Oder), Germany, Aug 2002 – Dec 2004.

❖ Publications

- (47) Bodnar, O., R.N., Muhmuza, A. Possolo, 2020, Bayesian Inference for Heterogeneity in Meta-Analysis. Submitted to *Metrologia*.

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- (46) Muhmuza, R.N., O. Bodnar, 2020, On modeling the correlation as an additional parameter in random effects model, *Theory of Probability and Mathematical Statistics*, to appear.
- (45) Muhmuza, R. N., O. Bodnar, J. Nzabanita, R. Nsubuga, 2020, Determining influential factors in spatio-temporal models – in: Skiadas, Christos H., Skiadas, Charilaos (Eds.), *Demography of Population Health, Aging and Health Expenditures*, The Springer Series on Demographic Methods and Population Analysis, Springer, to appear.
- (44) Possolo, A., C. Merktas, O. Bodnar, 2019, Asymmetrical uncertainties, *Metrologia*, 56, 045009.
- (43) Bodnar, O., 2019, Non-Informative Bayesian Inference for Heterogeneity in a Generalized Marginal Random Effects Meta-Analysis. *Theory of Probability and Mathematical Statistics*, 100, 7–23.
- (42) Bodnar, O., C. Elster, 2019, Assessing Laboratory Effects in Key Comparisons with Two Transfer Standards Measured in Two Petals: A Bayesian Approach — in: K. Tsui, S. Knoth, W. Schmid (eds.), *Proceedings of the XI-IIth International Workshop on Intelligent Statistical Quality Control 2019*, Hong Kong, 1–18.
- (41) Muhmuza, R. N., O. Bodnar, J. Nzabanita, R. Nsubuga, 2019, Determining influential factors in spatio-temporal models — in: C.H. Skiadasn (ed.) *Proceedings of ASMDA2019, 18th Applied Stochastic Models and Data Analysis International Conference*, ISAST: International Society for the Advancement of Science and Technology, 547–558.
- (40) Possolo, A., O. Bodnar, T.A. Butler, J.L. Molloy, M.R. Winchester, 2018, Value Assignment and Uncertainty Evaluation for Single-Element Reference Solutions. *Metrologia*, 55, 404–413.
- (39) Possolo, A. and O. Bodnar, 2018, Approximate Bayesian Evaluations of Measurement Uncertainty. *Metrologia*, 55, 147–157.
- (38) Wübbeler, G., O. Bodnar and C. Elster, 2018, Robust Bayesian Linear Regression with Application to an Analysis of the CODATA Values for the Planck Constant. *Metrologia*, 55, 20–28.
- (37) Bodnar, O. and C. Elster, 2018, Analysis of Key Comparisons with Two Reference Standards: Extended Random Effects Meta-Analysis — in: A. B. Forbes, N.-F. Zhang, A. Chunovkina, S. Eichstädt (eds.), *Advanced*

- Mathematical and Computational Tools in Metrology and Testing XI*, World Scientific, Singapore, 1–8.
- (36) Bodnar, O., A. Link, B. Arendacká, A. Possolo, and C. Elster, 2017, Bayesian Estimation in Random Effects Meta-Analysis Using a Non-Informative Prior. *Statistics in Medicine*, 36, 378–399.
- (35) Bodnar, O., R. Behrens and C. Elster, 2017, Bayesian Inference for Measurements of Ionizing Radiation under Partial Information. *Metrologia*, 54, S29–S33.
- (34) Bodnar, O. and W. Schmid, 2016, CUSUM Control Schemes for Monitoring the Covariance Matrix of Multivariate Time Series. *Statistics*, 51, 722–744.
- (33) Bodnar, O. and C. Elster, 2016, Assessment of Vague and Noninformative Priors for Bayesian Estimation of the Realized Random Effects in Random Effects Meta-Analysis. *Advances in Statistical Analysis (AStA)*, 102, 1–20.
- (32) Bodnar, O., A. Link and C. Elster, 2016, Objective Bayesian Inference for a Generalized Marginal Random Effects Model. *Bayesian Analysis*, 11, 25–45.
- (31) Wright, J., B. Toman, B. Mickan, G. Wübbeler, O. Bodnar and C. Elster, 2016, Transfer Standard Uncertainty Can Cause Inconclusive Inter-Laboratory Comparisons. *Metrologia*, 53, 1243–1258.
- (30) Wübbeler, G., O. Bodnar and C. Elster, 2016, Bayesian Hypothesis Testing for Key Comparisons. *Metrologia*, 53, 1131–1138.
- (29) Bodnar, O., C. Elster, J. Fischer, A. Possolo and B. Toman, 2016, Evaluation of Uncertainty in the Adjustment of Fundamental Constants. *Metrologia*, 53, S46–S54.
- (28) Fan, I., S. Knappe-Grünberg, J. Voigt, W. Kilian, M. Burghoff, D. Stollfuss, A. Schnabel, G. Wübbeler, O. Bodnar, C. Elster, F. Seifert and L. Trahms, 2016, Direct Measurement of the $\gamma_{\text{He}}/\gamma_{\text{Xe}}$ Ratio at Ultralow Magnetic Field. *Journal of Physics: Conference Series*, 723, 1–7.
- (27) Wübbeler, G., O. Bodnar, B. Mickan and C. Elster, 2015, Explanatory Power of Degrees of Equivalence in the Presence of a Random Instability of the Common Measurand. *Metrologia*, 52, 400–405.

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- (26) Bodnar, O. and C. Elster, 2014, On the Adjustment of Inconsistent Data Using the Birge Ratio, *Metrologia*, 51, 516–521 (selected for Highlights of 2014 in *Metrologia*).
- (25) Bodnar, O. and C. Elster, 2014, Analytical Derivation of the Reference Prior by Sequential Maximization of Shannon’s Mutual Information in the Multi-Group Parameter Case, *Journal of Statistical Planning and Inference*, 147, 106–116.
- (24) Spinelli, L., M. Botwicz, N. Zolek, M. Kacprzak, D. Milej, P. Sawosz, A. Liebert, U. Weigel, T. Durduran, F. Foschum, A. Kienle, F. Baribeau, S. Leclair, J.-P. Bouchard, I. Noiseux, P. Gallant, O. Mermut, A. Farina, A. Pifferi, A. Torricelli, R. Cubeddu, H.-C. Ho, M. Mazurenka, H. Wabnitz, K. Klauenberg, O. Bodnar, C. Elster, M. Bénazech-Lavoué, Y. Bérubé-Lauzière, F. Lesage, D. Khoptyar, A.A. Subash, S. Andersson-Engels, P. Di Ninni, F. Martelli and G. Zaccanti, 2014, Determination of Reference Values for Optical Properties of Liquid Phantoms Based on Intralipid and India Ink, *Biomedical Optics Express*, 5, 2037–2053.
- (23) Bodnar O., T. Bodnar and Y. Okhrin, 2013, Robust Surveillance of Covariance Matrices Using a Single Observation. *Sankhyā A: The Indian Journal of Statistics*, 76, 219–256.
- (22) Bodnar, O., A. Link, K. Klauenberg, K. Jousten and C. Elster, 2013, Application of Bayesian model averaging using a fixed effects model with linear drift for the analysis of key comparison CCM.P-K12, *Measurement Techniques*, 56, 584–590.
- (21) Jousten, K., K. Arai, U. Becker, O. Bodnar, F. Boineau, J. A. Fedchak, V. Gorobey, W. Jian, D. Mari, P. Mohan, J. Setina, B. Toman, M. Vičar, Y. H. Yan, 2013, Final report of key comparison CCM.P-K12 for very low helium flow rates (leak rates), *Metrologia*, 50, Technical Supplement, 07001.
- (20) Bodnar, O., G. Wübbeler and C. Elster, 2012, Comparison of Different Choices for a Prior under Partial Information in a Bayesian Analysis — in: F. Pavese, M. Bär, J.-R. Filtz, A. B. Forbes, L. Pendrill, H. Shirono (eds.), *Advanced Mathematical and Computational Tools in Metrology and Testing IX*, World Scientific, Singapore, 51–57.
- (19) Bodnar, O. and W. Schmid, 2011, CUSUM Schemes for Monitoring the Mean of Multivariate Gaussian Processes, *Journal of Statistical Planning and Inference*, 141, 2055–2070.

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- (18) Bodnar, O., G. Wübbeler and C. Elster, 2011, On the Application of Supplement 1 to the GUM to Nonlinear Problems, *Metrologia*, 48, 333–342.
 - (17) Bodnar, O. and T. Bodnar, 2010, On the Unbiased Estimator of the Efficient Frontier, *International Journal of Theoretical and Applied Finance*, 13, 1065–1073.
 - (16) Bodnar, O. and W. Schmid, 2010, Nonlinear Locally Weighted Kriging Prediction for Spatio-Temporal Environmental Processes, *Environmetrics*, 21, 365–381.
 - (15) Bodnar, O., T. Bodnar and A.K. Gupta, 2010, Estimation and Inference of the Dependence in Multivariate Data, *Journal of Multivariate Analysis*, 101, 869–881.
 - (14) Bodnar, O., 2009, Sequential Surveillance of the Tangency Portfolio Weights, *International Journal of Theoretical and Applied Finance*, 12, 797–810.
 - (13) Bodnar, O. and T. Bodnar, 2009, Statistical Inference Procedure for the Mean-Variance Efficient Frontier with Estimated Parameters, *Advances in Statistical Analysis (AStA)*, 93, 295–306.
 - (12) Bodnar, O. and W. Schmid, 2009, Discussion on 'Optimal Sequential Surveillance for Finance, Public Health, and Other Areas' by Marianne Frisen, *Sequential Analysis*, 28, 381–385.
 - (11) Bodnar O., T. Bodnar and Y. Okhrin, 2009, Surveillance of the Covariance Matrix based on the Properties of the Singular Wishart Distribution, *Computational Statistics and Data Analysis*, 53, 3372–3385.
 - (10) Bodnar, O. and T. Bodnar, 2009, Unbiased Estimator of the Expected Quadratic Utility Portfolio, *International Journal of Financial Economics and Econometrics*, 1, 59–68.
 - (9) Bodnar, O., 2009, Application of the Generalized Likelihood Ratio Test for Detecting Drifts in Multivariate GARCH Processes, *Communications in Statistics: Simulation and Computation*, 38, 919–938.
 - (8) Bodnar, O., M. Cameletti, A. Fassò and W. Schmid, 2008, Comparing Air Quality Among Italy, Germany and Poland Using BC Indexes, *Atmospheric Environment*, 42, 8412–8421.
 - (7) Bodnar O. and W. Schmid, 2008, Nonlinear Locally Weighted Kriging Prediction for Spatio-Temporal Environmental Processes — in: D. Cocchi

- et al. (eds.), *Statistics for Spatio-Temporal Modelling*, Alghero, Sardinia, 129–134.
- (6) Bodnar O. and W. Schmid, 2007, Surveillance of the Mean Behavior of Multivariate Time Series, *Statistica Neerlandica*, 61, 383–406.
 - (5) Bodnar O., 2007, Sequential Procedures for Monitoring Covariances of Asset Returns — in: G. N. Gregoriou (ed.), *Advances in Risk Management*, Palgrave, London, Chapter 13, 241–264.
 - (4) Bodnar O. and W. Schmid, 2006, CUSUM Control Schemes for Multivariate Time Series — in: H.-J. Lenz and P.-Th. Wilrich (eds.), *Frontiers in Statistical Quality Control*, Vol.8, Physica-Verlag, Heidelberg, 55–73.
 - (3) Bodnar O. and W. Schmid, 2005, Multivariate Control Charts based on a Projection Approach, *Advances in Statistical Analysis (AStA)*, 89, 75–93.
 - (2) Bodnar O. and Y. I. Yelejko, 2000, The Formation of the Optimal Portfolio in the Transient Period, *Prykladna statystyka. Finansova ta Aktuarna Matematyka*, 2, 120–123 (in Ukrainian).
 - (1) Bodnar O., T. Bodnar and Y. I. Yelejko, 1999, Making Optimum Decision in the Transient Period, *Formuvannya Rynkovoї Ekonomiky v Ukraini*, 5, 507–514 (in Ukrainian).

❖ Conferences & Presentations

- *Bayes Model Selection in Random Effects Meta-Analysis*, JCGM Working Group 1 Workshop on Type A Evaluation of Measurement Uncertainty for a Small Set of Observations, BIPM Sevres, France, 2 December 2019.
- *Non-Informative Bayesian Inference for Heterogeneity in a Generalized Marginal Random Effects Meta-Analysis*, MATHMET 2019 — International Workshop on Mathematics and Statistics for Metrology, Lisbon, 20–22 November 2019.
- *Non-Informative Bayesian Inference for Heterogeneity in a Generalized Marginal Random Effects Meta-Analysis*, Statistical Week, Trier, Germany, 10–13 September 2019.
- *Assessing Laboratory Effects in Key Comparisons with Two Transfer Standards Measured in Two Petals: A Bayesian Approach*, The XIIIth International Workshop on Intelligent Statistical Quality Control 2019, Hong Kong, 12–14 August 2019.

- *Approximate Bayesian Evaluations of Measurement Uncertainty*, Annual BIPM Meeting of JCGM Working Group 1: GUM, Paris, 4–7 December 2018.
- *Semiparametric Spatio-Temporal Process for Environmental Data*, MAM Workshop in Probability Theory, Mathematical Statistics and Applications, Västerås, 21 November, 2018.
- *Approximate Bayesian Evaluations of Measurement Uncertainty*, the 15th International scientific and technical seminar “Uncertainty of measurement: scientific, applied, regulatory and methodical aspects (UM-2018)”, Kharkiv, 10-11 October 2018.
- Tutorial Instructor at the 2018 NCSL International Workshop & Symposium "Measurements of Tomorrow", Portland, 25-30 August 2018.
- *Objective Bayesian Inference with Applications to Generalized Marginal Random Effects Model*, EMMI-AAA 2018 International Workshop “Engineering Mathematics and Mathematics in Industry — Algebra, Analysis and Application”, Västerås, 30 May 2018.
- *A Novel Approach for the Analysis of Key Comparisons with Two Reference Standards: Extended Random Effects Meta-Analysis*, Advanced Mathematical and Computational Tools in Metrology and Testing (AMCTM 2017), Glasgow 29-31 August 2017 (plenary talk).
- *Bayesian Inference for Measurements of Ionizing Radiation under Partial Information*, Meeting of GAK 967.2.1 “Characteristic Values for the Measurement of Ionizing Radiation” — Working Group “AK SIGMA”, Hannover, 4-5 July 2017.
- Participant at the 2017 Stu Hunter Research Conference, Copenhagen. 5-8 March 2017.
- *Objective Bayesian Inference with Applications to Generalized Marginal Random Effects Model*, Workshop “Mathematics for Measurement”, Edinburgh, 30 January – 2 February, 2017 (invited talk).
- *Bayesian Inference for Measurements of Ionizing Radiation under Partial Information*, MATHMET 2016 — International Workshop on Mathematics and Statistics for Metrology, Berlin, 07-09 November 2016 (plenary talk).

- *CUSUM Control Schemes for Monitoring the Covariance Matrix of Multivariate Time Series*, Workshop on "Statistics in Finance and Process Monitoring", Frankfurt (Oder), 6-7 October 2016 (invited talk).
- *Objective Bayesian Inference for a Generalized Marginal Random Effects Model*, ISBA 2016 World Meeting, Sardinia, 13-17 June, 2016.
- *Assessment of the Reference Prior and its Application to Bayesian Inference for Generalized Marginal Random Effects Model*, Research Seminar at the Department of Statistics, Lund University, Lund, 6 April, 2016.
- *Objective Bayesian Inference with Applications to Generalized Marginal Random Effects Model*, Research Seminar at the Department of Mathematics, Stockholm University, Stockholm, 30 March, 2016.
- *ISO 11929: Some Statistical Interpretation*, 30 Meeting of GAK 967.2.1 "Characteristic Values for the Measurement of Ionizing Radiation" — Working Group "AK SIGMA", Hannover, 20-21 January 2016.
- *Objective Bayesian Inference for Random Effects in a Random Effects Model*, Statistische Woche, Hamburg, 15-18 September 2015.
- *Evaluation of Uncertainty in the Adjustment of Fundamental Constants*, BIPM Workshop on Measurement Uncertainty, Paris, 15-16 June 2015.
- Discussant at the 2015 Stu Hunter Research Conference, Leuven. 9-11 March 2015.
- *Objective Bayesian Inference for a Generalized Marginal Random Effects Model*, Statistische Woche, Hannover, 16-19 September 2014.
- *Bayesian Treatment of a Random-Effects Model for the Analysis of Key Comparisons*, MATHMET 2014 — International Workshop on Mathematics and Statistics for Metrology, Berlin, 24-26 March 2014.
- *On the Reference Prior in the Multi-Group Parameter Case*, Statistische Woche, Berlin, 17-20 September 2013.
- *Analytical Derivation of a Reference Prior with and without Partial Prior Knowledge*, Statistische Woche, Wien, 18-21 September 2012.
- *Bayesian Analysis of Inconsistent Key Comparison Data in the Presence of a Linear Drift*, International Seminar: Mathematics, Statistics and Computation to Support Measurement Quality, St. Petersburg, 5-6 June 2012.

- *Comparison of Different Choices for a Prior Under Partial Information in a Bayesian Analysis*, Advanced Mathematical and Computational Tools in Metrology and Testing (AMCTM 2011), Göteborg, 20-22 June 2011.
- *Semiparametric Approaches for Modelling Air Pollution Processes*, Statistische Woche, Nürnberg, 14-18 September 2010.
- *Semiparametric Approaches for Modelling Air Pollution Processes*, METMA V: International Workshop on Spatio-temporal Modeling, Santiago de Compostela (Spain), 30 June - 2 July 2010.
- *Nonlinear Locally Weighted Kriging Prediction for Spatio-Temporal Environmental Processes*, Pfingsttagung der Deutschen Statistischen Gesellschaft 2009, Merseburg, 4-5 June 2009.
- *Nonlinear Locally Weighted Kriging Prediction for Spatio-Temporal Environmental Processes*, 9th Workshop on Stochastic Models and Their Applications, Aachen, 3-6 March 2009.
- *Nonlinear Locally Weighted Kriging Prediction for Spatio-Temporal Environmental Processes*, METMA IV: International Workshop on Spatio-temporal Modeling, Alghero (Italy), 24-26 September 2008.
- *CUSUM Schemes for Monitoring the Mean of Multivariate Gaussian Processes*, Pfingsttagung der Deutschen Statistischen Gesellschaft 2008, Berlin, 15-16 May 2008.
- *CUSUM Control Schemes for Monitoring Variance of Multivariate Time Series*, Research Seminar at the Department of Management and Information Technology, University of Bergamo, Bergamo, 27 September 2006.
- *Particulate Matter: why is it of importance? Modeling and Analyzing*, Research Seminar at the Statistical Department, European University Viadrina, Frankfurt (Oder), 21 September 2006.
- *CUSUM Control Schemes for Monitoring Variance of Multivariate Time Series*, German Open Conference on Probability and Statistics, Frankfurt (Main), 14-17 March 2006.
- *CUSUM Control Charts for Multivariate Financial Time Series*, Research Seminar in the Economics Department, Christian-Albrechts-Universität zu Kiel, Kiel, 29 September 2005.
- *Sequential Monitoring in Portfolio Management*, European Financial Management Association 2004 Conference, Basel, 30 June - 3 July 2004.

- *CUSUM Control Schemes for Multivariate Time Series*, Pfingsttagung der Deutschen Statistischen Gesellschaft 2004, Leipzig, 3-4 June 2004.
- *CUSUM Control Schemes for Multivariate Time Series*, Karlsruher Stochastik-Tage 2004 German Open Conference on Probability and Statistics, Karlsruhe, 23-26 March 2004.
- *Sequential Procedures for Detecting Changes in the Global Minimum Variance Portfolio Efficiency*, Research Seminar at the Department of Statistics, European University Viadrina, Frankfurt (Oder), 30 October 2003.
- *The Formation of the Optimal Portfolio in the Transient Economy*, Second International Econometrics Conference “Econometrical Methods and Models in the Economics: Theory and Practice”, Lviv 2001.
- *Convergence and Risk of Optimal Portfolio in the Transient Period*, International Scientific-Practical Conference “Risk at Economy and Enterprise”, Kyiv National Economical University, Kyiv, 27-28 March 2001.

❖ Special Skills

- Proficient in MATLAB and in the R environment for statistical programming, computing, and graphics. Experience with C++, SAS, and STATA.
- Proficient user of L^AT_EX.
- Fluent in Ukrainian, German, English, Russian, and Polish (Basic).

