Publikációs lista, Baran Sándor

A) Referált folyóiratcikk

1. Baran, S., Szák-Kocsis, Cs., Stehlík, M., D-optimal designs for complex Ornstein-Uhlenbeck processes. *J. Stat. Plan. Inference*, benyújtott (arXiv: 1704.05719).

2. Baran, S., Lerch, S., Combining predictive distributions for statistical post-processing of ensemble forecasts. *Int. J. Forecast.*, benyújtott (arXiv: 1607.08096).

3. Baran, S., K-optimal designs for parameters of shifted Ornstein-Uhlenbeck processes and sheets. *J. Stat. Plan. Inference* **186** (2017), 28–41. (Impakt faktor: 0.858)

4. Baran, S., Möller, A., Bivariate ensemble model output statistics approach for joint forecasting of wind speed and temperature. *Meteorol. Atmos. Phys.* **129** (2017), no. 1, 99–112. (Impakt faktor: 1.159, független hivatkozás: 2)

    - Schefzik, R., Combining parametric low-dimensional ensemble postprocessing with reordering methods. *Q. J. R. Meteorol. Soc.* **142** (2016), 2463–2477.
    - Li, W., Duan, Q., Miao, C., Ye, A., Gong, W., Di, Z., A review on statistical post-processing methods for hydrometeorological ensemble forecasting. *Wiley Interdiscip. Rev. Water* (2017) e1246, doi:10.1002/wat2.1246.

5. Lerch, S., Baran, S., Similarity-based semi-local estimation of EMOS models. *J. R. Stat. Soc. Ser. C Appl. Stat.* **66** (2017), no. 1, 29–51. (Impakt faktor: 1.716, független hivatkozás: 3)

    - Schefzik, R., A similarity-based implementation of the Schaake shuffle. *Mon. Wea. Rev.* **144** (2016), 1909–1921.
    - Hemri, S., *Probabilistic forecasting based on hydrometeorological ensembles.* PhD thesis, Karlsruhe Institute of Technology, 2016.
    - Hamill, T., Engle, E., Myrick, D., Peroutka, M., Finan, C., Scheuerer, M., The US national blend of models statistical post-processing of probability of precipitation and deterministic precipitation amount. *Mon. Wea. Rev.* **145** (2017), 3441–3463.

6. Baran, S., Nemoda, D., Censored and shifted gamma distribution based EMOS model for probabilistic quantitative precipitation forecasting. *Environmetrics* **27** (2016), no. 5, 280–292. (Impakt faktor: 1.532, független hivatkozás: 3)

    - Sansom, P. G., Ferro, C. A. T., Stephenson, D. B., Goddard, L., Mason, S. J., Best practices for post-processing ensemble climate forecasts, Part I: Selecting appropriate recalibration methods. *J. Climate.* **29** (2016), 7247–7264.

- Hamill, T., Engle, E., Myrick, D., Peroutka, M., Finan, C., Scheuerer, M., The US national blend of models statistical post-processing of probability of precipitation and deterministic precipitation amount. *Mon. Wea. Rev.* **145** (2017), 3441–3463.
- Li, W., Duan, Q., Miao, C., Ye, A., Gong, W., Di, Z., A review on statistical post-processing methods for hydrometeorological ensemble forecasting. *Wiley Interdiscip. Rev. Water* (2017) e1246, doi:10.1002/wat2.1246.

7. Baran, S., Lerch, S., Mixture EMOS model for calibrating ensemble forecasts of wind speed. *Environmetrics* **27** (2016), no. 2, 116–130. (Impakt faktor: 1.532, független hivatkozás: 4)
   - Bessac, J., Constantinescu, E. M., Anitescu, M. Stochastic simulation of predictive space-time scenarios of wind speed using observations and physical models. arXiv:1511:09416.
   - Eide, S. S., *Statistical postprocessing of ensemble forecasts of wind.* Master thesis, Norwegian University of Science and Technology, 2016.
   - Nowotarski, J., Weron, R., Recent advances in electricity price forecasting: A review of probabilistic forecasting. *Renew. Sust. Energ. Rev.* (2017), doi:10.1016/j.rser.2017.05.234.
   - Sharpe, M. A., Bysouth, C. E., Stretton, R. E., How well do Met Office post-processed site-specific probabilistic forecasts predict relative-extreme events? *Meteorol. Appl.* (2017), doi:10.1002/met.1665.
8. Baran, S., Pap, G., Sikolya, K., Testing stability in a spatial unilateral autoregressive model. *Comm. Statist. Theory Methods* **45** (2016), 933–949. (Impakt faktor: 0.311)
9. Baran, S., Lerch, S., Log-normal distribution based EMOS models for probabilistic wind speed forecasting. *Q. J. R. Meteorol. Soc.* **141** (2015), 2289–2299. (Impakt faktor: 3.669, független hivatkozás: 15)
   - Schefzik, R., *Physically coherent probabilistic weather forecasts using multivariate discrete copula-based ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2015.
   - Junk, C., Delle Monache, L., Alessandrini, S. Analog-based ensemble model output statistics. *Mon. Wea. Rev.* **143** (2015), 2909–2917.
   - Junk, C., Späth, S., von Braman, L., Delle Monache, L., Comparison and combination of regional and global ensemble prediction systems for probabilistic predictions of hub-height wind speed. *Wea. Forecasting* **30** (2015), 1234–1253.
   - Klein, B., Meißner, D., Hemri, S., Lisniak, D., Ermittlung der prädiktiven Unsicherheit von hydrologischen Ensemblevorhersagen. Bundesanstalt für Gewässerkunde, Bericht BfG-1853, 2015.

- Bessac, J., Constantinescu, E. M., Anitescu, M. Stochastic simulation of predictive space-time scenarios of wind speed using observations and physical models. arXiv:1511:09416.
- Taillardat, M., Mestre, O., Zamo, M. and Naveau, P., Calibrated ensemble forecasts using quantile regression forests and ensemble model output statistics. *Mon. Wea. Rev.* **144** (2016), 2375–2393.
- Schefzik, R., Combining parametric low-dimensional ensemble postprocessing with reordering methods. *Q. J. R. Meteorol. Soc.* **142** (2016), 2463–2477.
- Hemri, S., *Probabilistic forecasting based on hydrometeorological ensembles.* PhD thesis, Karlsruhe Institute of Technology, 2016.
- Eide, S. S., *Statistical postprocessing of ensemble forecasts of wind.* Master thesis, Norwegian University of Science and Technology, 2016.
- Ahn, K.-H., Palmer, R., Steinschneider, S., A hierarchical Bayesian model for regionalized seasonal forecasts: Application to low flows in the northeastern United States. *Water Resour. Res.* **53** (2017), 503–521.
- Zhao, T., Bennett, J., Wang, Q., Schepen, A., Wood, A., Robertson, D., Ramos, M., How suitable is quantile mapping for post-processing GCM precipitation forecasts? *J. Climate.* **30** (2017), 3185–3196.
- Dai, J., Tan, Y., Yang, W., Wen, L., Shen, X., Investigation of wind resource characteristics in mountain wind farm using multiple-unit SCADA data in Chenzhou: A case study. *Energ. Convers. Manage.* **148** (2017), 378–393.
- Sun, X. G., Yin, J. F., Zhao, Y., Using the inverse of expected error variance to determine weights of individual ensemble members: application to temperature prediction. *J. Meteor. Res.* **31** (2017), 502–513.
- Li, M., Chen, W., Zhang, T., Application of MODWT and log-normal distribution model for automatic epilepsy identification. *Biocybern. Biomed. Eng.* **37** (2017), 679–689.
- Bogner, K., Liechti, K., Zappa, M., Technical note: Combining quantile forecasts andpredictive distributions of stream-flows. *Hydrol. Earth Syst. Sci. Discuss.* (2017), doi:10.5194/hess-2017-291.

10. Baran, S., Sikolya, K., Stehlík, M., Optimal designs for the methane flux in troposphere. *Chemometr. Intell. Lab.* **146** (2015), 407–417. (Impakt faktor: 2.217)

11. Baran, S., Möller, A., Joint probabilistic forecasting of wind speed and temperature using Bayesian model averaging. *Environmetrics* **26** (2015), no. 2, 120–132. (Impakt faktor: 1.160, független hivatkozás: 6)

- Schefzik, R., *Physically coherent probabilistic weather forecasts using multivariate discrete copula-based ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2015.
- Schefzik, R., A similarity-based implementation of the Schaake shuffle. *Mon. Wea. Rev.* **144** (2016), 1909–1921.
- Schefzik, R., Combining parametric low-dimensional ensemble postprocessing with reordering methods. *Q. J. R. Meteorol. Soc.* **142** (2016), 2463–2477.
- Lerch, S., *Probabilistic forecasting and comparative model assessment, with focus on extreme events.* PhD thesis, Karlsruhe Institute of Technology, 2016.
- Weijenborg, C., Chagnon, J. M., Friederichs, P., Gray, S. L., Hense, A., Coherent evolution of potential vorticity anomalies associated with deep moist convection. *Q. J. R. Meteorol. Soc.* **143** (2017), 1254–1267.
- Li, W., Duan, Q., Miao, C., Ye, A., Gong, W., Di, Z., A review on statistical post-processing methods for hydrometeorological ensemble forecasting. *Wiley Interdiscip. Rev. Water* (2017) e1246, doi:10.1002/wat2.1246.

12. Baran, S., Stehlík, M., Optimal designs for parameters of shifted Ornstein-Uhlenbeck sheets measured on monotonic sets. *Statist. Probab. Lett.* **99** (2015), 114–124. (Impakt faktor: 0.506)

13. Gál, Z., Almási, B., Dabóczi, T., Vida, R., Oniga, S., Baran, S., Farkas, I., Internet of things: application areas and research results of the FIRST project. *Infocomm. J.* **6** (2014), no. 3, 37–44. (Független hivatkozás: 5)

    - Lencse, G., Kovács, Á., Advanced measurements of the aggregation capability of the MPT network layer multipath communication library. *Int. J. Adv. Telecom. Elect. Sign. Syst.* **4** (2015), 41–48.
    - Baranyi, P., Csapó, Á., Sallai, G., Cognitive Capabilities in the Future Internet. In: *Cognitive Infocommunications (CogInfoCom).* Springer International Publishing, 2015, pp. 173–185.
    - Szedmina, L., Molcer, P. S., Simon, J., Čović, Z., Clicking for business English success. In: *Proceedings of the IEEE 13th International Symposium on Intelligent Systems and Informatics (SISY 2015).* Subotica, Serbia, September 17–19, 2015. Institute of Electrical and Electronics Engineers (IEEE), 2016, 313–317.
    - Alohali, B., Security in cloud of things (CoT). In: *Managing Big Data in Cloud Computing Environments.* IGI Global, 2016. 46–70.
    - Simon, J., Čović, Z., Petkovics, I., Industrie 4.0 based customized mass production overview. *Proceedings of the 4th International Conference and Workshop Mechatronics in Practice and Education – MECHEDU 2017*, Subotica, Serbia, May 4–5, 2017. Subotica Tech – College of Applied Sciences, Subotica, 2017, 72–76.

14. Baran, S., Horányi, A., Nemoda, D., Comparison of the BMA and EMOS statistical methods in calibrating temperature and wind speed forecast ensembles. *Időjárás* **118** (2014), no. 3, 217–241. (Impakt faktor: 0.500, független hivatkozás: 2)

    - Schefzik, R., *Physically coherent probabilistic weather forecasts using multivariate discrete copula-based ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2015.
    - Lerch, S., *Probabilistic forecasting and comparative model assessment, with focus on extreme events.* PhD thesis, Karlsruhe Institute of Technology, 2016.

15. Baran, S., Horányi, A., Nemoda, D., Probabilistic temperature forecasting with statistical calibration in Hungary. *Meteorol. Atmos. Phys.* **124** (2014), no. 3-4, 129–142. (Impakt faktor: 1.049, független hivatkozás: 1)

    - Schefzik, R., *Physically coherent probabilistic weather forecasts using multivariate discrete copula-based ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2015.

16. Baran, S., Probabilistic wind speed forecasting using Bayesian model averaging with truncated normal components. *Comput. Stat. Data. Anal.* **75** (2014), 227–238. (Impakt faktor: 1.400, független hivatkozás: 19)

    - Hemri, S., Lisniak, D., Klein, B., Ermittlung probabilistischer Abflussvorhersagen unter Berücksichtigung zensierter Daten. *HyWa* **58** (2014), no. 2, 84–94.
    - Möller, A., *Multivariate and spatial ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2014.
    - Schefzik, R., *Physically coherent probabilistic weather forecasts using multivariate discrete copula-based ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2015.
    - Jiang, P., Dong, Q., A new hybrid model based on an intelligent optimization algorithm and a data denoising method to make wind speed predication. *Math. Probl. Eng.* (2015), paper 714605.
    - Liu, H., Tian, H., Liang, X., Li, Y., New wind speed forecasting approaches using fast ensemble empirical model decomposition, genetic algorithm, Mind Evolutionary Algorithm and Artificial Neural Networks. *Renew. Energ.* **83** (2015), 1066–1075.
    - Wang, J., Hu, J., A robust combination approach for short-term wind speed forecasting and analysis Combination of the ARIMA (Autoregressive Integrated Moving Average), ELM (Extreme Learning Machine), SVM (Support Vector Machine) and LSSVM (Least Square SVM) forecasts using a GPR (Gaussian Process Regression) model. *Energy* **93** (2015), 41–56.

- Błazejowski, M., Kwiatkowski, J., Bayesian model averaging and jointness measures for gretl. *J. Stat. Softw.* **68** (2015), doi: 10.18637/jss.v068.i05.
- Hu, J., Wang, J., Short-term wind speed prediction using empirical wavelet transform and Gaussian process regression. *Energy* **93** (2015), 1456–1466.
- Wu, Y., Zhong, Y., Wang, D., Wu, W., Probabilistic precipitation forecasting over the Dongjiang Basin with BMA. *Tropical Geography* **35** (2015), 860–872.
- Bessac, J., Constantinescu, E. M., Anitescu, M. Stochastic simulation of predictive space-time scenarios of wind speed using observations and physical models. arXiv:1511:09416.
- Nguefack-Tsague, G., Zucchini, W., A mixture-based Bayesian model averaging method. *Open Journal of Statistics* **6** (2016), 220–228.
- Schefzik, R., Combining parametric low-dimensional ensemble postprocessing with reordering methods. *Q. J. R. Meteorol. Soc.* **142** (2016), 2463–2477.
- Lerch, S., *Probabilistic forecasting and comparative model assessment, with focus on extreme events.* PhD thesis, Karlsruhe Institute of Technology, 2016.
- Hemri, S., *Probabilistic forecasting based on hydrometeorological ensembles.* PhD thesis, Karlsruhe Institute of Technology, 2016.
- Wang, M.-L., Liu, X.-T., Wang, Y.-S., Wang, X.-L., Guo, H., Xing, Y.-F., Research on assembly tolerance allocation and quality control based on fuzzy reliability. *P. I. Mech. Eng. C – J. Mec.* **230** (2016), 3755–3766.
- Dai, J., Tan, Y., Yang, W., Wen, L., Shen, X., Investigation of wind resource characteristics in mountain wind farm using multiple-unit SCADA data in Chenzhou: A case study. *Energ. Convers. Manage.* **148** (2017), 378–393.
- Lan, S., Lina, X., Yuzhu, H., Wind power application research on the fusion of the determination and ensemble prediction. *Adv. Sci. Res.* **14** (2017), 227–230.
- Shi, L., Xu, L., Hao, Y., Application research on the multi-model fusion forecast of wind speed. *Plateau Meteorology* **36** (2017), 1022–1028.
- Bogner, K., Liechti, K., Zappa, M., Technical note: Combining quantile forecasts andpredictive distributions of stream-flows. *Hydrol. Earth Syst. Sci. Discuss.* (2017), doi:10.5194/hess-2017-291.

17. Baran, S., Horányi, A., Nemoda, D., Statistical post-processing of probabilistic wind speed forecasting in Hungary. *Meteorol. Z.* **22** (2013), no. 3, 273–282. (Impakt faktor: 1.160, független hivatkozás: 8)

    - Gneiting, T., Calibration of medium-range weather forecasts. *ECMWF Technical Memorandum* No. 719, 2014.

- Möller, A., *Multivariate and spatial ensemble postprocessing methods.* PhD thesis, Heidelberg University, 2014.
- El-gindy, A. A. H., El-nashar, Elham S., Probability modelling of wind velocity for assessment of wind energy at Alexandria coast. *Res. J. App. Sci. Eng. Technol.* **8** (2014), 2001–2015.
- Arató, M., Martinek, L., Comparison of reserving and spatial models in insurance. In: Montserrat, G. et al. (ed.) *Current Topics on Risk Analysis: ICRA6 and RISK 2015 Conference.* Barcelona, Spain, May 26–29, 2015. Fundación Mapfre, Madrid, 2015, 71–78.
- Scheuerer, M., Möller, D., Probabilistic wind speed forecasting on a grid based on ensemble model output statistics. *Ann. Appl. Stat.* **9** (2015), 1328–1349.
- Möller, A., Groß, J., Probabilistic temperature forecasting based on an ensemble autoregressive modification. *Q. J. R. Meteorol. Soc.* **142** (2016), 1385–1394.
- Lerch, S., *Probabilistic forecasting and comparative model assessment, with focus on extreme events.* PhD thesis, Karlsruhe Institute of Technology, 2016.
- Arató, M., Martinek, L., Mályusz, M., Simulation based comparison of stochastic claims reserving models in general insurance. *Stud. Sci. Math. Hung.* **54** (2017), 241–275.

18. Baran, S., Sikolya, K., Stehlík, M., On the optimal designs for the prediction of Ornstein-Uhlenbeck sheets. *Statist. Probab. Lett.* **83** (2013), no. 6, 1580–1587. (Impakt faktor: 0.531)

19. Baran, S., Sikolya, K., Veress, L., Estimating the risk of a Down's syndrome term pregnancy using age and serum markers: Comparison of various methods. *Comm. Statist. Simulation Comput.* **42** (2013), no. 7, 1654–1672. (Impakt faktor: 0.288)

20. Baran, S., Sikolya, K., Parameter estimation in linear regression driven by a Gaussian sheet. *Acta Sci. Math. (Szeged)* **78** (2012), no. 3-4, 689–713.

21. Baran, S., Sikolya, K., Parameter estimation in linear regression driven by a Wiener sheet. *Ann. Math. Inform.* **39** (2012), 3–15.

22. Baran, S., Pap, G., Parameter estimation in a spatial unit root autoregressive model. *J. Multivariate Anal.* **107** (2012), 282–305. (Impakt faktor: 1.063)

23. Kukush, A., Baran, S., Fazekas, I., Usoltseva, E., Simultaneous estimation of baseline hazard rate and regression parameters in Cox proportional hazards model with measurement error. *J. Statist Res.* **45** (2011), no. 2, 77–94.

24. Baran, S., On the variances of a spatial unit root model. *Lith. Math. J.* **51** (2011), no. 2, 122–140. (Impakt faktor: 0.486)

25. Baran, S., Pap, G., Asymptotic inference for a one-dimensional simultaneous autoregressive model. *Metrika* **74** (2011), no. 1, 55–66. (Impakt faktor: 0.674)

26. Baran, S., Pap, G., Zuijlen, M. v., Parameter estimation of a shifted Wiener sheet. *Statistics* **45** (2011), no. 4, 319–335. (Impakt faktor: 0.724)

27. Baran, S., Pap, G., On the least squares estimator in a nearly unstable sequence of stationary spatial AR models. *J. Multivariate Anal.* **100** (2009), no. 4, 686–698. (Impakt faktor: 1.017, független hivatkozás: 1)

    - Leonenko, N., Taufel, E., Disaggregation of spatial autoregressive processes. *Spatial Statistics* **3** (2013), no. 3, 1–20.

28. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for unit roots in spatial triangular autoregression. *Acta Appl. Math.* **96** (2007), no. 1-3, 17–42. (Impakt faktor: 0.366, független hivatkozás: 2)

    - Hu, H., QML estimators in linear regression models with functional coefficient autoregressive processes. *Math. Probl. Eng.* (2010), art. no. 956907.
    - Hu, H., Pan, X., Xu, L., Maximum likelihood estimators in linear regression models with Ornstein-Uhlenbeck process. *J. Inequal. Appl.* (2014), 2014:301.

29. Baran, S., Gáll, J., Ispány, M., Pap, G., Forecasting Hungarian mortality rates using the Lee-Carter method. *Acta Oeconomica* **57** (2007), no. 1, 25–38. (Független hivatkozás: 7)

    - Scherp, H., *Applying the Lee-Carter model to countries in Eastern Europe and the former Soviet Union.* Disseration for actuarial diploma. Swedish Society of Actuaries, 2007.
    - Arató, M., Bozsó, D., Elek, P., Zempléni, A., Forecasting and simulating mortality tables. *Math. Comput. Modelling* **49** (2009), no. 3-4, 805–813.
    - Pitacco, E., Denuit, M., Haberman, S., Olivieri, A., *Modelling longevity dynamics for pensions and annuity business.* Oxford University Press, Oxford, 2009.
    - Májer, I. Kovács, E., Élettartam-kockázat – a nyugdíjrendszerre nehezedő egyik teher. *Statisztikai Szemle* **89** (2011), no. 7-8, 709–812.
    - Li, H., De Waegenaere, A., Melenberg, B., The choice of sample size for mortality forecasting: a Bayesian learning approach. *Insur. Math. Econ.* **63** (2015), 153–168.
    - Li, H., *Managing Longevity Risk.* PhD Thesis, Tilburg University, 2015.
    - Bajkó, A., Maknics, A., Tóth, K., Vékás, P. A magyar nyugdíjrendszer fenntarthatóságáról. *Közgazdasági Szemle* **62** (2015), 1229–1257.

30. Csukás, A., Takai, S., Baran, S., Adolescent growth in main somatometric traits of Japanese boys: Ogi Longitudinal Growth Study. *HOMO* **57** (2006), no. 1, 73–86. (Impakt faktor: 0.585, független hivatkozás: 4)

    - Whitley, E., Gunnell, D., Davey Smith, G., Holly, J. M. P. and Martin, R. M., Childhood circumstances and anthropometry: The Boyd Orr cohort. *Ann. Hum. Biol.* **35** (2008), no. 5, 518–534.
    - Bralić, I., Sekularne promjene rasta i razvoja. *Paediatr Croat.* **52** (2008) no. 1, 25–35.
    - Smajić, M., Mihajlović, I., Tomić, B., Transverzalna dimenzionalnost skeleta mladih fudbalera. *Journal of the Anthropologycal Society of Serbia* **46** (2011), 229–235.
    - Garlipp, D. C., *Estudo descritivo dos resultados de desenhos transversais, longitudinais e longitudinais mistos em variveis do crescimento somático em uma mesma população de crianças jovens.* PhD thesis, Universidade Federal do Rio Grande do Sul, 2011.

31. Baran, S., A consistent estimator for nonlinear regression models. *Metrika* **62** (2005), no. 1, 1–15. (Impakt faktor: 0.451, független hivatkozás: 1)

    - Ciuperca, G., Asymptotic behaviour of the LS estimator in a nonlinear model with long memory. *J. Korean Statist. Soc.* **40** (2011), no. 2, 193–203.

32. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for a nearly unstable sequence of stationary spatial AR models. *Statist. Probab. Lett.* **69** (2004), no. 1, 53–61. (Impakt faktor: 0.284, független hivatkozás: 4)

    - Ojeda, S., Vallejos, R., Bustos, O., A new image segmentation algorithm with applications to image inpainting. *Comput. Statist. Data Anal.* **54** (2010), no. 9, 2082–2093.
    - Martellosio, F., Efficiency of the OLS estimator in the vicinity of a spatial unit root. *Statist. Probab. Lett.* **81** (2011), no. 8, 1285–1291.
    - Vallejos, R., Ojeda, S., Image segmentation and time series clustering based on spatial and temporal ARMA processes. In Pei-Gee Peter Ho (Ed.), *Advances in Image Segmentation*. ISBN: 978-953-51-0817-7, InTech, 2012.
    - Ojeda, S., Britos, G. M., A new algorithm to represent texture images. *International Journal of Advanced Computer Science and Applications* **4** (2013), no. 6, 106–111.

33. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for an unstable spatial AR model. *Statistics* **38** (2004), no. 6, 465–483. (Impakt faktor: 0.323, független hivatkozás: 3)

    - Robinson, P. M., Vidal Sanz, J., Modified Whittle estimation of multilateral spatial models. *Cemmap Working Paper* CWP18/03, 2003.

- Mirzaev, T. S., Startsev, A. N., A new approach to parameter estimate in a spatial autoregression model of first order. In: *Computer Data Analysis and Modeling: Complex Stochastic Data and Systems.* Minsk, Belarus: 07.09.2010–11.09.2010.09.11. Publishing center BSU, Minsk, 2010, Paper 94536.
- Hassan, A. R., *Stationarity and Unit Roots in Spatial Autoregressive Models.* PhD thesis. Universidad Nacional de Colombia, 2012.

34. Baran, S., A consistent estimator for linear models with dependent observations. *Comm Statist. Theory Methods* **33** (2004), no. 10, 2469–2486. (Impakt faktor: 0.186, független hivatkozás: 9)

    - Fan, G-L., Liang, H-Y., Wang, J-F., Xu, H-X., Asymptotic properties for LS estimators in EV regression model with dependent errors. *AStA Adv. Stat. Anal.* **89** (2010), no. 1, 89–103.
    - Miao, Y., Zhao, F., Wang, K., Central limit theorems for LS estimators in the EV regression model with dependent measurements. *J. Korean Statist. Soc.* **40** (2011), no. 3, 303–312.
    - Yang, Q., Asymptotic normality of LS estimators in the simple linear EV regression model with PA errors. *Comm. Statist. Theory Methods* **41** (2012), no. 23, 4276–4284.
    - Fan, G-L., Liang, H-Y., Wang, J-F., Empirical likelihood for heteroscedastic partially linear errors-in-variables model with α-mixing errors. *Stat. Papers* **54** (2013), no. 1, 85–112.
    - Miao, Y., Zhao, F., Wang, K., Chen, Y., Asymptotic normality and strong consistency of LS estimators in the EV regression model with NA errors. *Stat. Papers* **54** (2013), no. 1, 193–206.
    - Xu, S-F., Li, N., Consistency for the LS estimator in the linear EV regression model with replicate observations. *J. Korean Statist. Soc.* **42** (2013), no. 4, 451–458.
    - Hu, H., Pan, X., Asymptotic normality of Huber-Dutter estimators in a linear EV model with AR(1) processes. *J. Inequal. Appl.* (2014), 2014:474.
    - Wang, S., MDP for estimators in EV regression models with α -mixing errors. *Statistics* **49** (2015), 119–127.
    - Shen, A., Asymptotic properties of LS estimators in the errors-in-variables model with MD errors. *Stat. Papers* (2017), doi:10.1007/s00362-016-0869-1.

35. Baran, S., Pap, G., Zuijlen, M. v., Estimation of the mean of a Wiener sheet. *Stat. Inference Stoch. Process.* **7** (2004), no. 3, 279–304.

36. Baran, S., Pap, G., Zuijlen, M. v., Estimation of the mean of stationary and nonstationary Ornstein–Uhlenbeck processes and sheets. *Comput. Math. Appl.* **45** (2003), no. 4-5, 563–579. (Impakt faktor: 0.498, független hivatkozás: 8)

    - Rao, B. L. S. P., Estimation for translation of a process driven by fractional Brownian motion. *Stoch. Anal. Appl.* **23** (2005), no. 6, 1199-1212.
    - Leonenko, N., Taufer, E., Convergence of integrated superpositions of Ornstein-Uhlenbeck processes to fractional Brownian motion. *Stochastics* **77** (2005), no. 6, 477–499.
    - Taufer, E., Leonenko, N., Characteristic function estimation of non-Gaussian Ornstein-Uhlenbeck processes. *J. Statist. Plan. Inference* **139** (2009), no. 9, 3050–3063.
    - Puggioni, G., *Using Data Augmentation and Stochastic Differential Equations in Spatio Temporal Modeling.* PhD thesis, Duke University, 2009.
    - Rao, B. L. S. P., *Statistical inference for fractional diffusion processes.* John Wiley and Sons, Chichester, 2010.
    - Zufiria, P. J., A mathematical framework for new fault detection schemes in nonlinear stochastic continuous-time dynamical systems. *Appl. Math. Comput.* **218** (2012), no. 23, 11391–11403.
    - Barczy, M., Examples of random fields that can be represented as space-domain scaled stationary Ornstein-Uhlenbeck fields. arXiv:1501:0371.
    - Taufer, E., Estimation of marginal parameters of SUP-OU processes with long range dependence. *Int. J. Adv. Stat. Probab.* **4** (2016), no. 2, 102–108.

37. Norberg, T., Rosén, L., Baran, Á. and Baran, S., On modelling discrete geological structures as Markov random fields. *Math. Geol.* **34** (2002), no. 1, 63–77. (Impakt faktor: 0.527, független hivatkozás: 38)

    - Zhang, Y., Fogg, G. E., Simulation of multi-scale heterogeneity of porous media and parameter sensitivity analysis. *Sci. China Ser. E* **46** (2003), no. 5, 459–474.
    - Li, W. D., Zhang, C. R., Burt, J. E., Zhu, A. X., Feyen, J., Two-dimensional Markov chain simulation of soil type spatial distribution. *Soil Sci. Soc. Am. J.* **68** (2004), no. 5, 1479–1490.
    - Zhang, C. R., Li, W. D., Markov chain modeling of multinomial land-cover classes, *GIScience and Remote Sensing* **42** (2005), no. 1, 1–18.
    - Li, W. D., Zhang, C. R., Application of transiograms to Markov chain simulation and spatial uncertainty assessment of land-cover classes, *GIScience and Remote Sensing* **42** (2005), no. 4, 297–319.

- Li, W. D., Zhang, C. R., Burt, J. E., Zhu, A. X., A Markov chain-based probability vector approach for modeling spatial uncertainties of soil classes. *Soil Sci. Soc. Am. J.* **69** (2005), no. 6, 1931–1942.
- Liu, Z. F., Hao, T. Y., Fang, H., Modeling of stochastic reservoir lithofacies with Markov chain model. *Acta Petrolei Sinica* **26** (2005), no. 5, 57–60.
- Li, W. D., Zhang, C. R., A generalized Markov chain approach for conditional simulation of categorical variables from grid samples. *Transactions in GIS* **10** (2006), no. 4, 651–669.
- Brown, J. D., Heuvelink, G. B. M., The Data Uncertainty Engine (DUE): A software tool for assessing and simulating uncertain environmental variables. *Computers & Geosciences* **33** (2007), no. 2, 172–190.
- Li, W. D., A fixed-path Markov chain algorithm for conditional simulation of discrete spatial variables. *Math. Geol.* **39** (2007), no. 2 159–176.
- Albora, A. M., Ucan, O. N., Aydogan, D., Modelling potential field sources in the Gelibolu Peninsula (Western Turkey) using a Markov Random Field approach. *Pure Appl. Geophys.* **164** (2007), no. 5, 1057–1080.
- Li, W. D., Zhang, C. R., A random-path Markov chain algorithm for simulating categorical soil variables from random point samples. *Soil Sci. Soc. Am. J.* **71** (2007), no. 3, 656–668.
- Li, W. D. Transiograms for characterizing spatial variability of soil classes. *Soil Sci. Soc. Am. J.* **71** (2007), no. 3, 881–893.
- Heuvelink, G. B. M., Brown, J. D., van Loon, E. E., A probabilistic framework for representing and simulating uncertain environmental variables. *Int. J. Geogr. Inf. Sci.* **21** (2007), no. 5, 497–513.
- Zhang, C. R., Li, W. D., Comparing a fixed-path Markov chain geostatistical algorithm with sequential indicator simulation in categorical variable simulation from regular samples, *GIScience and Remote Sensing* **44** (2007), no. 3, 251–266.
- Heuvelink, G. B. M., Brown, J. D.,Towards a soil information system for uncertain soil data. In *Digital Soil Mapping: An Introductory Perspective (Developments in Soil Science, Volume 31)* (edited by Lagacherie, P., McBratney, A. B., Voltz, M.), Elsevier, 2007. Chapter 8, 97–106.
- Li, W. D., Zhang, C. R., A single-chain-based multidimensional Markov chain model for subsurface characterization. *Environ. Ecol. Stat.* **15** (2008), no. 2, 157–174.
- Friedel, M. J., Hydrologic modeling strategy for the Islamic Republic of Mauritania, Africa. *U.S. Geological Survey Open-File Report* 2008-1173, 2008, 20 p.
- Brown, J. D., Heuvelink, G. B. M., On the identification of uncertainties in spatial data and their quantification with probability distribution functions. In *The Hand-*

book of Geographic Information Science (edited by J. P. Wilson and A. Stewart), John Wiley and Sons, 2008, 94–107.

- Cardiff, M., Kitanidis, P. K., Bayesian inversion for facies detection: An extensible level set framework. *Water Resour. Res.* **45** (2009), art. no. W10416, doi: 10.1029/2008WR007675.
- Güler, M. E., A review of management science applications of discrete time Markov chains. *Review of Social, Economic and Business Studies* **11/12** Fall 2008–2009.
- Li, J., Xiong, L., Fang, S., Tang, L., Huo, H., Lithology stochastic simulation based on Markov chain models integrated with multi-scale data. *Acta Petrolei Sinica* **31** (2010), no. 1, 73–77.
- Knotters, M., Heuvelink, G. B. M., Hoogland, T., Walvoort, D. J. J., *A disposition of interpolation techniques.* Wageningen, Statutory Research Tasks Unit for Nature and the Environment, WOt-werkdocument 190, 2010.
- Ma, R., Shi, J., Liu, J., Dealing with the spatial synthetic heterogeneity of aquifers in the North China Plain: A case study of Luancheng County in Hebei Province. *Acta Geologica Sinica* **86** (2012), no. 1, 226–245.
- Kempen, B., Brus, D. J., Heuvelink, G. B. M., Soil type mapping using the generalised linear geostatistical model: A case study in a Dutch cultivated peatland. *Geoderma* **189–190**, November 2012, 540–553.
- Ma, R., Shi, J.-S., Liu, J.-C., Zhang, Y.-L., Establishment and application of Cloud-Markov model based on aquifer hydraulic conductivity. *Journal of Hydraulic Engineering* **43** (2012), no. 7, 767–776.
- Goldberg, D. A., Higher order Markov random fields for independent sets. arXiv: 1301.1762.
- Tian, Y. K., Zhou, H., Yuan, S. Y., Lithologic discrimination method based on Markov random field. *Chinese J. Geophys.* **56** (2013), no. 4, 1360–1368.
- Lee, J., Kitanidis, P. K., Bayesian inversion with total variation prior for discrete geologic structure identification. *Water Resour. Res.* **49** (2013), no. 11, 7658–7669.
- van der Veer, G., Development and application of geospatial models for verifying the geographical origin of food. In *New Analytical Approaches for Verifying the Origin of Food* (edited by P. Brereton), Elsevier, 2013, 60–80.
- Hartikainen, A., *Statistical analysis of geological space.* Master thesis, Aalto University, 2014.
- Huang, X., Wang, Z., Guo, J., Theoretical generalization of Markov chain random field from potential function perspective. *J. Cent. South Univ.* **23** (2016), no. 1, 189–200.

- Li, Z., Wang, X., Wang, H., Liang, R. Y., Quantifying stratigraphic uncertainties by stochastic simulation techniques based on Markov random field. *Eng. Geol.* **201** (2016), 106–122.
- Huang, X., Wang, Z., Guo, J., Prediction of categorical spatial data via Bayesian updating. *Int. J. Geogr. Inf. Sci.* **30** (2016), 1426–1449.
- Wang, X., Li, Z., Wang, H., Rong, Q., Liang, R. Y., Probabilistic analysis of shield-driven tunnel in multiple strata considering stratigraphic uncertainty. *Struct. Saf.* **62** (2016), 88–100.
- Huang, X., Wang, Z., Modeling categorical random fields via linear Bayesian Updating. Preprints 2016, 2016070030, doi:10.20944/preprints201607.0030.v1.
- Li, Z., *Subsurface simulation using stochastic modeling techniques for reliability based design of geo-structures.* PhD thesis, University of Akron, 2016.
- Wang, H., Wellmann, J. F., Li, Z., Wang, X., Liang, R. Y., A segmentation approach for stochastic geological modeling using hidden Markov random fields. *Math. Geosci.* **49** (2017), 145–147.
- Howarth, R. K., *Dictionary of Mathematical Geosciences.* Springer, 2017.

38. Baran, S., A new consistent estimator for linear errors-in-variables models. *Comput. Math. Appl.* **41** (2001), no. 7-8, 821–833. (Impakt faktor: 0.383, független hivatkozás: 2)

    - Neng, J., Yafen, Y., Estimation of reporting tax errors for Chinese personal income based on errors-in-variables model. *Second International Conference on Innovative Computing, Information and Control, ICICIC 2007* (2008), art. no. 4428021.
    - Wendelberger, J. R., Variation in controlled experimental variables. *Qual. Technol. Quant. M.* **12** (2015), no. 1, 29–40.

39. Baran, S., Asymptotic properties of an estimator in functional errors-in-variables models. *Theory Probab. Appl.* **45** (2001), no. 4, 701–703. (Impakt faktor: 0.110)

40. Baran, S., A consistent estimator in general functional errors-in-variables models. *Metrika* **51** (2000), no. 2, 117–132. (Impakt faktor: 0.212; független hivatkozás: 8)

    - Kukush, A., Zwanzig, S. On consistent estimators in nonlinear functional errors-in-variables models. In *Total Least Squares and Errors-in-Variables Modeling: Analysis, Algorithms and Applications* (edited by S. Van Huffel and P. Lemmerling), Kluwer Acad. Publ., Dordrecht, 2002, 145–154.
    - Cheng, C-L., Schneeweiss, H., On the polynomial measurement error model. In *Total Least Squares and Errors-in-Variables Modeling: Analysis, Algorithms and Applications* (edited by S. Van Huffel and P. Lemmerling), Kluwer Acad. Publ., Dordrecht, 2002, 131–143.

- Kukush, A., Markovsky, I., Huffel, S. V., Consistent estimation in the bilinear multivariate errors-in-variables model. *Metrika* **57** (2003), no. 3, 253–285.
- Balsamo, A., Mana, G., Pennecchi, F., On the best fit of a line to uncertain observation pairs. *Metrologia* **42** (2005), no. 5, 376–382.
- Jun, B. E., Bernstein, D. S., Extended least-correlation estimates for errors-in-variables non-linear models. *Internat. J. Control* **82** (2007), no. 2, 256–267.
- Butucea, C., Taupin, M. L., New M-estimators in semi-parametric regression with errors in variables. *Ann. Inst. H. Poincaré Probab. Statist.* **44** (2008), no. 3, 393–421.
- Taupin, M. L., *Déconvolution et Estimation dans les modèles avec erreurs sur les variables.* Habilitation thesis, Paris Descartes University, 2008.
- Piga, D., Tóth, R., A bias-corrected estimator for nonlinear systems with output-error type model structures. *Automatica* **50** (2014), no. 9, 2373–2380.

41. Fazekas, I., Baran, S., Lauridsen, J., Asymptotic properties of an estimator in errors-in-variables models in the presence of validation data. *Comput. Math. Appl.* **38** (1999), no. 5-6, 31–39. (Impakt faktor: 0.314)

42. Fazekas, I., Baran, S., Kukush, A., Lauridsen, J., Asymptotic properties in space and time of an estimator in non-linear functional errors-in-variables models. *Random Oper. Stochastic Equations* **7** (1999), no. 4, 389–412. (Független hivatkozás: 5)

    - Gabrosek, J., Cressie, N., The effect of attribute prediction of location uncertainty in spatial data. *Geogr. Anal.* **34** (2002), no. 3, 262–285.
    - Cheng, C-L., Schneeweiss, H., On the polynomial measurement error model. In *Total Least Squares and Errors-in-Variables Modeling: Analysis, Algorithms and Applications* (edited by S. Van Huffel and P. Lemmerling), Kluwer Acad. Publ., Dordrecht, 2002, 131–143.
    - Cressie, N., Kornak, J., Spatial statistics in the presence of location error with an application to remote sensing of the environment. *Statist. Sci.* **18** (2003), no. 4, 436–456.
    - Butucea, C., Taupin, M. L., New M-estimators in semi-parametric regression with errors in variables. *Ann. Inst. H. Poincaré Probab. Statist.* **44** (2008), no. 3, 393–421.
    - Taupin, M. L., *Déconvolution et Estimation dans les modèles avec erreurs sur les variables.* Habilitation thesis, Paris Descartes University, 2008.

43. Arató, M., Baran, S., Ispány, M., Functionals of complex Ornstein-Uhlenbeck processes. *Comput. Math. Appl.* **37** (1999), no. 1, 1–13. (Impakt faktor: 0.314, független hivatkozás: 9)

- Tsurkis, I. Ya., Spiridonov, E. A., Variations in the amplitude of the chandler wobble. *Izvestiya Physics of the Solid Earth* **45** (2009), no. 12, 1072–1080.
- Tsurkis, I. Ya., Spiridonov, E. A., On the applicability of the mathematical apparatus of Markovian processes to the description of the Chandler wobble. *Izvestiya Physics of the Solid Earth* **44** (2009), no. 4, 273–286.
- Tsurkis, I. Ya., Spiridonov, E. A., Kuchay, M. S., On the pole motion stochastic model in connection with the Chandler anomaly of the beginning of the XXth century. *Geophysical Research* **11** (2010), no. 4., 69–78.
- Fernandez-Alcala, R. M., Navarro-Moreno, J., Ruiz-Molina, J. C., Prediction on widely factorizable signals. *EURASIP J. Adv. Sig. Pr.* (2012), 2012:96.
- Navarro-Moreno, J., Fernandez-Alcala, R. M., Ruiz-Molina, J. C., A quaternion widely linear model for nonlinear Gaussian estimation *IEEE Trans. Signal Process.* **62** (2014), no. 24, 6414–6424.
- Otten, D., Exponentially weighted resolvent estimates for complex Ornstein-Uhlenbeck systems. *J. Evol. Eq.* **15** (2015), no. 4, 753–799.
- Prior, A. F., *Estimação de parâmetros em modelos estocásticos de estruturas com comportamento dinâmico linear e quasi linear.* PhD thesis, University of Porto, 2015.
- Lilly, J. M., Sykulski, A. M., Early, J. J., Olhede, S. C., Fractional Brownian motion, the Matérn process, and stochastic modeling of turbulent dispersion. *Nonlin. Processes Geophys.* **24** (2017), 481–514.
- Guillaumin, A. P., Sykulski, A. M., Olhede, S. C., Early, J. J., Lilly, J. M., Analysis of non-stationary modulated time series with applications to oceanographic surface flow measurements. *J. Time Ser. Anal.* **38** (2017), 668–710.

44. Kozma, L., Baran, S., On metrical homogeneous connections of a Finsler point space. *Publ. Math. Debrecen* **49** (1996), no. 1-2, 59–68. (Impakt faktor: 0.099; független hivatkozás: 6)

    - Tamássy, L., Point Finsler spaces with metrical linear connections. *Publ. Math. Debrecen* **56** (2000), no. 3-4, 643–655.
    - Tamássy, L., Area and metrical connections in Finsler spaces. In *Finsler Geometries* (edited by P. L. Antonelli), Kluwer Acad. Publ., 2000, 263–280.
    - Tamássy, L., Finsler spaces of Riemann-Minkowsky type. In *Finsler and Lagrange Geometries* (edited by M. Anastatiei and P. L. Antonelli), Kluwer Acad. Publ., 2003, 225–232.
    - Park, H-S., Park, H-Y., Kim, B-D., On a Finsler space with (α, β)-metric and certain metrical non-linear connection. *Commun. Korean Math. Soc.* **21** (2006), no. 1, 177–183.

- Tamássy, L., Geometry of the point Finsler spaces. In *Non-Euclidean Geometries* (edited by A. Prékopa, E. Molnár), Springer, 2006, 445–461.
- Tamássy, L., Finsler spaces with polynomial metric. In *Space-Time Structure. Algebra and Geometry* (edited by D. G. Pavlov, Gh. Atanasiu, V. Balan), Lilia-Print, Moscow, 2007, 311–319.

B) Konferencia-kiadvány

1. Baran, S., Veress, L., Estimating the risk of a Down's syndrome term pregnancy using age and serum markers. Csőke et al. (ed.) *Proceedings of the 6^{th} International Conference on Applied Informatics*, Eger, Hungary, January 27–31, 2004, Eszterházi Károly Főiskola, Eger, 2005, 75–84.

2. Baran, S., Pap, G., Zuijlen, M. v., Estimation of the mean of Ornstein-Uhlenbeck processes and sheets. Kovács, E., Winkler, Z. (ed.) *Proceedings of the 4^{th} International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 30–September 3, 1999. Molnár és társa, Eger, 2001, 337–344.

3. Baran, Á., Baran, S., On the weak convergence of a continuous state space simulated annealing. Kovács, E., Winkler, Z (ed.) *Proceedings of the 4^{th} International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 30–September 3, 1999. Molnár és társa, Eger, 2001, 231–240.

4. Fazekas, I., Lauridsen, J., Baran, S., Asymptotic properties of an estimator in spatial errors-in-variables models in the presence of validation data. Kovács, E. et al. (ed.) *Proceedings of the 3^{rd} International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 25–28, 1997. Nyomda Kft., Eger, 1999, 59-68.

5. Baran, S., Szabó, Á., An application of simulated annealing to ML-estimation of a partially observed Markov chain. Kovács, E. et al. (ed.) *Proceedings of the 3^{rd} International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 25–28, 1997. Nyomda Kft., Eger, 1999, 85–95. (Független hivatkozás: 2)

   - Verdes, E., *The π^* index: computation, characterization and application of a new goodness of fit measure.* Ph.D. thesis, University of Debrecen, 2002.
   - Goldstein, P., Karaga, M., Kosor, M., Nizetić, I., Tadić, M., Vlah, D., Hidden Markov models and multiple alignments of protein sequences. In Drmać, Z. et al. (eds.), *Proceedings of the Conference on Applied Mathematics and Scientific Computing*, Springer, Dordrecht, 2005, pp. 187–196.

6. Baran, S., Estimating the transition matrix of a finite state space Markov chain with MATLAB. *Proc. of the Workshop on Statistics at Universities: Its Impact for Society*, Eötvös University Press, Budapest, 1997, 29–34.

C) Kutatási jelentés és egyéb publikáció

1. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for unit roots in spatial triangular autoregression. Department of Mathematics, Radboud University Nijmegen, The Netherlands, *Report* No. 0506, 2005. (Független hivatkozás: 2)

    - Paulauskas, V., On unit roots for spatial autoregressive models. *J. Multivariate Anal.* **98** (2007), no. 1, 209–226.
    - Paulauskas, V., Zové, R., A note on self-normalization for a simple spatial autoregressive model. *Lithuanian Math. J.* **47** (2007), no. 2, 184–194.

2. Baran, S., *Sztochasztikus modellek vizsgálata.* Habilitációs cikkgyűjtemény, Debreceni Egyetem, Debrecen, 2005.

3. Baran, S., A new estimator for nonlinear regression models. Institute of Mathematics and Informatics, University of Debrecen, *Preprint* No. 308 (*Technical Report* No. 2003/12).

4. Arató, M., Baran, S., Fazekas, G., Lineáris dinamikai rendszer négyzetes veszteséggel. Institute of Mathematics and Informatics, University of Debrecen, *Preprint* No. 303 (*Technical Report* No. 2003/7).

5. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for an unstable triangular spatial *AR* model. Department of Mathematics, University of Nijmegen, The Netherlands, *Report* No. 0126, 2001.

6. Baran, S., *Asymptotic properties of estimators in regression models.* doktori (PhD) értekezés, Debreceni Egyetem, Debrecen, 2000 (116 old.).

7. Baran, S., Fazekas, I., Kukush A. G., Applications of the deconvolution method for estimation in errors-in-variables models. Institute of Mathematics and Informatics, University of Debrecen, *Technical Report* No. 10/2000, 2000.

8. Baran, S., Pap, G., Zuijlen, M. v., Estimation of the mean of stationary and nonstationary Ornstein-Uhlenbeck processes. Department of Mathematics, University of Nijmegen, The Netherlands, *Report* No. 9928, 1999. (Független hivatkozás: 1)

    - Varga, K., *On statistical problems of discrete an continuous time autoregressive processes.* Ph.D. thesis, University of Debrecen, 2003.

9. Ispány M., Baran S., Idősorok analízise a SAS programrendszerrel. Department of Mathematics, Lajos Kossuth University, *Technical Report* No. 97/18, 1997.

10. Baran, S., Automata in GAP. Department of Mathematics, Lajos Kossuth University, *Technical Report* No. 95/134, 1995.

D) Egyetemi jegyzet

1. Baran, S., *Feladatok a hipotézisvizsgálat témaköréből.* mobiDIÁK Könyvtár, Debreceni Egyetem, 2005. http://mobidiak.inf.unideb.hu.

2. Baran S., Fazekas I., Gelvitzky B., Iglói E., Ispány M., Kalmár I., Nagy M., Tar L., Verdes E., *Bevezetés a matematikai statisztikába.* Kossuth Egyetemi Kiadó, Debrecen, 1997, 523 oldal. (X. fejezet, 345–380 oldalak.) (Független hivatkozás: 1)

    - Óvári, M., Záray, Gy., Danzer, K. and Thiel, G., Investigation of distribution of beryllium, nickel and vanadium in subsoil of Csepel-Island. *Microchemical J.* **67** (2000), 249–256.

E) Előadás nemzetközi konferencián

1. *Combining predictive distributions for calibration of ensemble forecasts for wind speed.* XXXIV. International Seminar on Stability Problems for Stochastic Models, Debrecen, Hungary, August 25–29, 2017.

2. *Statistical post-processing of ensemble forecasts for precipitation accumulation.* TIES-GRASPA 2017, Bergamo, Italy, July 24–26, 2017 (meghívott).

3. *Mixture EMOS model for calibratig ensemble forecasts of wind speed.* 12^{th} German Probability and Statistics Days, Bochum, Germany, March 1–4, 2016.

4. *Bivariate BMA and EMOS models for joint calibration of temperature and wind speed forecasts.* Mini Symposium on Statistical Postprocessing of Ensemble Forecasts, HITS, Heidelberg, Germany, July 15, 2015 (meghívott).

5. *Log-normal distribution based EMOS models for probabilistic wind speed forecasting.* European Meeting of Statisticians, Amsterdam, The Netherlands, July 6–10, 2015.

6. *Joint calibration of temperature and wind speed forecasts using Bayesian Model Averaging.* 12^{th} Workshop on Stochastic Models, Statistics and Their Applications, Wroclaw, Poland, February 16–20, 2015.

7. *Probabilistic methods in wind speed forecasting.* Latin American Congress of Statistical Societies (CLATSE2014), La Serena, Chile, October 20–23, 2014 (meghívott).

8. *Comparison of BMA and EMOS statistical calibration methods for ensemble weather prediction.* 3^{rd} Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA2014), Lisbon, Portugal, June 11–14, 2014.

9. *Statistical post-processing of ensemble forecasts.* ECMI workshop on "The mathematics of air pollution", Budapest, Hungary, May 26–27, 2014 (meghívott).

10. *Probabilistic wind speed forecasting using Bayesian model averaging with truncated normal components.* 11^{th} German Probability and Statistics Days, Ulm, Germany, March 4–7, 2014.

11. *Statistical calibration of ensemble forecasts.* 9^{th} International Conference on Applied Informatics, Eger, Hungary, January 29–February 1, 2014.

12. *Probabilistic temperature forecasting with statistical calibration in Hungary.* 29^{th} European Meeting of Statisticians, Budapest, Hungary, July 20–25, 2013.

13. *Optimal design for parameters of a shifted Ornstein-Uhlenbeck sheet.* XXXI. International Seminar on Stability Problems for Stochastic Models, Moscow, Russia, April 23–27, 2013.

14. *Parameter estimation and testing stability in a spatial unilateral autoregressive model.* Modern Stochastic: Theory and Applications III, Kyiv, Ukraine, September 10–14, 2012 (meghívott).

15. *Parameter estimation in linear regression driven by a Gaussian random field.* 8^{th} World Congress in Probability and Statistics, Istanbul, Turkey, July 9–14, 2012.

16. *Probabilistic wind speed prediction in Hungary.* 10^{th} German Probability and Statistics Days, Mainz, Germany, March 6–9, 2012.

17. *Calibrating forecast ensembles of the LAMEPS system of the Hungarian Meteorological Service using Bayesian Model Averaging.* Applied Mathematics and Scientific Computing, Trogir, Croatia, June 13–17, 2011.

18. *Parameter estimation in a spatial unit root autoregressive model.* Applied Stochastic Models and Data Analysis (ASMDA2011), Rome, Italy, June 7–10, 2011.

19. *Asymptotic inference of a spatial unit root autoregressive model.* Modern Stochastic: Theory and Applications II, Kyiv, Ukraine, September 7–11, 2010 (meghívott).

20. *Parameter estimation in a spatial unit root autoregressive model.* 10^{th} International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, Lithuania, June 28–July 2, 2010.

21. *On the covariance structure of an unstable unilateral spatial autoregressive model.* 27^{th} European Meeting of Statisticians, Toulouse, France, July 20–24, 2009.

22. *Parameter estimation in unstable unilateral spatial autoregressive models.* Probability and Statistics with Applications, Debrecen, Hungary, June 8–12, 2009.

23. *Risk estimation in Down's syndrome screeing.* XXVIII. International Seminar on Stability Problems for Stochastic Models, Zakopane, Poland, May 31–June 5, 2009.

24. *Asymptotic inference for a one-dimensional simultaneous autoregressive model.* Barcelona Conference on Asymptotic Statistics, Barcelona, Spain, September 1–5, 2008.

25. *Asymptotic behaviour of the least squares estimator in a nearly unstable sequence of spatial AR models.* 8th German Open Conference on Probability and Statistics, Aachen, Germany, March 4–7, 2008.

26. *Mean estimation of a shifted Wiener sheet.* 5th International Conference on Levy Processes: Theory and Applications, Copenhagen, Denmark, August 13–17, 2007 (poszter).

27. *Prediction of macroeconomic quantities using stochastic models.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, July 9–13, 2007.

28. *An estimator for nonlinear regression models.* XXVI. International Seminar on Stability Problems for Stochastic Models, Sovata-Bai, Romania, August 27–September 2, 2006.

29. *Mean estimation of the Wiener sheet.* 26^{th} European Meeting of Statisticians, Torun, Poland, July 24–28, 2006.

30. *Asymptotic inference for unstable spatial AR models.* 9^{th} International Vilnius Conference on Probability Theory and Mathematical Statstics, Vilnius, Lithuania, June 25–30, 2006.

31. *Asymptotic inference for unit roots in spatial autoregression.* 25^{th} European Meeting of Statisticians, Oslo, Norway, July 24–28, 2005.

32. *Prediction of Hungarian mortality rates using Lee-Carter method.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, June 19–24, 2005.

33. *A consistent estimator for nonlinear regression models.* COMPSTAT 2004, Prague, Czech Republic, August 23–27, 2004 (poszter).

34. *Asymptotic inference for a nearly unstable sequence of stationary spatial AR models.* Third Croatian Congress of Mathematics, Split, Croatia, June 16–18, 2004.

35. *Parameter estimation in linear measurement error models.* Workshop *Risk Analysis and Other Applications of Statistics*, Budapest, Hungary, April 13–14, 2004.

36. *Estimating the risk of a Down's syndrome term pregnancy using age and serum markers.* 6^{th} International Conference on Applied Informatics, Eger, Hungary, January 27–31, 2004.

37. *Asymptotic inference for an unstable triangular spatial AR model.* Statistical Inference in Linear Models, Bedlewo, Poland, August 21–27, 2003.

38. *An application of stochastic optimization in earth sciences.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, June 23–27, 2003.

39. *A consistent estimator for linear measurement error models.* 24^{th} European Meeting of Statisticians 2002, Prague, Czech Republic, August 19–23, 2002.

40. *Estimation of the mean of a Wiener sheet.* 23^{rd} European Meeting of Statisticians 2001, Funchal, Madeira, Portugal, August 13–19, 2001.

41. *Estimation of the mean of Ornstein-Uhlenbeck processes and sheets.* XXI. International Seminar on Stability Problems for Stochastic Models, Eger, Hungary, January 28– February 3, 2001.

42. *A new estimator in linear measurement error models.* STAT'2000, International Conference on Mathematical Statistics, Szklarska Poreba, Poland, August 21–25, 2000.

43. *Estimation of the mean of Ornstein-Uhlenbeck processes.* Fourth Meeting of Austrian, Slovenian, Italian and Hungarian Young Statisticians, Pécs, Hungary, October 8–10, 1999 (meghívott).

44. *Asymptotic properties of an estimator in functional errors-in-variables models.* XX. International Seminar on Stability Problems for Stochastic Models, Lublin–Nałeczów, Poland, September 5–11, 1999.

45. *On the weak convergence of a continuous state space simulated annealing.* 4^{th} International Conference on Applied Informatics, Eger–Noszvaj, Hungary, August 30–September 3, 1999.

46. *Application of limit theorems for errors-in-variables models.* Colloquium on Limit Theorems of Probability and Statistics, Balatonlelle, Hungary, June 28–July 2, 1999.

47. *On functionals of complex Ornstein-Uhlenbeck processes.* Austrian, Hungarian, and Slovenian Joint Meeting of Young Statisticians, Piran, Slovenia, October 9–11, 1998 (meghívott).

48. *An Application of simulated annealing to ML-estimation of a partially observed Markov Chain.* 3^{rd} International Conference on Applied Informatics, Eger–Noszvaj, Hungary, August 24–28, 1997.

49. *Asymptotic properties in space and time of an estimator in errors-in-variables models in the presence of validation data.* 10^{th} European Young Statistician Meeting, Warsaw, Poland, August 18–22, 1997 (meghívott).