

List of publications of Sándor Baran

ARTICLES IN PEER-REVIEWED JOURNALS

1. Kocsis, M., Baran, S., AI and physics-based weather forecasting: A comparative study. arXiv:2606.02508 (submitted).
2. Baran, S., Leutbecher, M., Fair Box ordinate transform for forecasts following a multivariate Gaussian law. arXiv:2506.22601 (submitted).
3. Baran, S., Lakatos, M., Statistical post-processing of operational dual-resolution wind-speed ensemble forecasts. *Q. J. R. Meteorol. Soc.* (2026), doi:10.1002/qj.70201. (IF: 2.900; SJR: Q1)
4. Mayer, M. J., Baran, Á., Lerch, S., Horat, N., Yang, D., Baran, S., Post-processing of ensemble photovoltaic power forecasts with distributional and quantile regression methods. *Sol. Energy* **307** (2026), paper 114361, doi:10.1016/j.solener.2026.114361. (IF: 6.6; SJR: Q1/Q1; independent citations: 1)
5. Baran, S., Marín, J. C., Cuevas, O., Díaz, M., Szabó, M, Nicolis, O., Lakatos, M., Machine learning-based probabilistic forecasting of solar irradiance in Chile. *Adv. Stat. Climatol. Meteorol. Oceanogr.* **11** (2025), no. 1, 89–105. (SJR: Q1/Q2/Q1/Q2; independent citations: 7)
6. Leutbecher, M., Baran, S., Ensemble size dependence of the logarithmic score for forecasts issued as multivariate normal distributions. *Q. J. R. Meteorol. Soc.* **151** (2025), no. 766, paper e4898, doi:10.1002/qj.4898. (IF: 2.900; SJR: Q1; independent citations: 1)
7. Lakatos, M., Baran, S., Enhancing multivariate post-processed visibility predictions utilizing Copernicus Atmosphere Monitoring Service forecasts. *Meteorol. Appl.* **31** (2024), no. 6, paper e70015, doi:10.1002/met.70015. (IF: 2.500; SJR: Q2)
8. Baran, S., Lakatos, M., Clustering-based spatial interpolation of parametric post-processing models. *Wea. Forecasting* **39** (2024), no 11, 1591–1604. (IF: 3.100; SJR: Q1; independent citations: 3)
9. Baran, Á, Baran, S., Parametric model for post-processing visibility ensemble forecasts. *Adv. Stat. Climatol. Meteorol. Oceanogr.* **10** (2024), no. 2, 105–122. (SJR: Q2/Q3/Q2/Q2; independent citations: 1)
10. Baran, Á, Baran, S., A two-step machine learning approach to statistical post-processing of weather forecasts for power generation. *Q. J. R. Meteorol. Soc.* **150** (2024), no. 759, 1029–1047. (IF: 2.900; SJR: Q1; independent citations: 6)

11. Baran, S., Lakatos, M., Statistical post-processing of visibility ensemble forecasts. *Meteorol. Appl.* **30** (2023), no. 5, paper e2157, doi:10.1002/met.2157. (IF: 2.300; SJR: Q2; independent citations: 3)
12. Szépszó, G., Baran, Á., Baran, S., Jávorné Radnóczy, K., Korniyik, M., Tajti, D., Sugárzásra és magassági szélre vonatkozó rövidtávú előrejelzések operatív statisztikai utófeldolgozása. *Légekör* **68** (2023), 118–125.
13. Szabó, M., Gascón, E., Baran, S., Parametric post-processing of dual-resolution precipitation forecasts. *Wea. Forecasting* **38** (2023), no. 8, 1313–1322. (IF: 3.000; SJR: Q1; independent citations: 2)
14. Lakatos, M., Lerch, S., Hemri, S., Baran, S., Comparison of multivariate post-processing methods using global ECMWF ensemble forecasts. *Q. J. R. Meteorol. Soc.* **149** (2023), no. 752, 856–877. (IF: 3.000; SJR: D1; independent citations: 18)
15. Baran, S., Baran, Á., Calibration of wind speed ensemble forecasts for power generation. *Időjárás* **125** (2021), no. 4, 609–624. (IF: 0.869; SJR: Q4; independent citations: 8)
16. Baran, S., Szokol, P., Szabó, M., Truncated generalized extreme value distribution based EMOS model for calibration of wind speed ensemble forecasts. *Environmetrics* **32** (2021), paper e2678, doi:10.1002/env.2678. (IF: 1.527; SJR: Q1/Q2; independent citations: 19)
17. Díaz, M., Nicolis, O., Marín, J. C., Baran, S., Post-processing methods for calibrating the wind speed forecasts in central regions of Chile. *Ann. Math. Inform.* **53** (2021), 93–108. (SJR: Q3/Q4; independent citations: 1)
18. Schulz, B., El Ayari, M., Lerch, S., Baran, S., Post-processing numerical weather prediction ensembles for probabilistic solar irradiance forecasting. *Sol. Energy* **220** (2021), 1016–1031. (IF: 7.188; SJR: Q1/Q1; independent citations: 48)
19. Baran, Á., Lerch, S., El Ayari, M., Baran, S., Machine learning for total cloud cover prediction. *Neural. Comput. Appl.* **33** (2021), 2605–2620. (IF: 5.102; SJR: Q2/Q1; independent citations: 35)
20. Giacomelli Sobrinho, V., Lagutov, V., Baran, S., Green with savvy? Brazil’s climate pledge to the Paris Agreement and its transition to the Green Economy. *Energy and Climate Change* **1** (2020), paper 100015, doi:10.1016/j.egycc.2020.100015. (Independent citations: 7)
21. Baran, S., Baran, Á., Pappenberger, F., Ben Bouallègue, Z., Statistical post-processing of heat index ensemble forecasts: is there a royal road? *Q. J. R. Meteorol. Soc.* **146** (2020), no. 732, 3416–3434. (IF: 3.739; SJR: Q1; independent citations: 5)

22. Sikolya, K., Baran, S., On the optimal designs for the prediction of complex Ornstein-Uhlenbeck processes. *Comm. Statist. Theory Methods* **49** (2020), no. 20, 4859–4870. (IF: 0.893; SJR: Q3; independent citations: 2)
23. Lerch, S., Baran, S., Möller, A., Groß, J., Schefzik, R., Hemri, S., Graeter, M., Simulation-based comparison of multivariate ensemble post-processing methods. *Nonlinear Process. Geophys.* **27** (2020), no. 2, 349–371. (IF: 1.740; SJR: Q2/Q2/Q2; independent citations: 9)
24. Stehlík, M., Kišelák, J., Bukina, E., Lu, Y., Baran, S., Fredholm integral relation between compound estimation and prediction (FIRCEP). *Stoch. Anal. Appl.* **38** (2020), no. 3, 427–459. (IF: 1.530; SJR: Q2/Q3/Q3; independent citations: 2)
25. Díaz, M., Nicolis, O., Marín, J. C., Baran, S., Statistical post-processing of ensemble forecasts of temperature in Santiago de Chile. *Meteorol. Appl.* **27** (2020), paper e1818, doi:10.1002/met.1818. (IF: 2.119; SJR: Q3; independent citations: 6)
26. Baran, S., Hemri, S., El Ayari, M., Statistical post-processing of water level forecasts using Bayesian model averaging with doubly-truncated normal components. *Water Resour. Res.* **55** (2019), 3997–4013. (IF: 4.309; SJR: D1; independent citations: 22)
27. Baran, S., Leutbecher, M., Szabó, M., Ben Bouallègue, Z., Statistical post-processing of dual-resolution ensemble forecasts. *Q. J. R. Meteorol. Soc.* **145** (2019), 1705–1720. (IF: 3.471; SJR: D1; independent citations: 3)
28. Baran, S., Lerch, S., Combining predictive distributions for statistical post-processing of ensemble forecasts. *Int. J. Forecast.* **34** (2018), 477–496. (IF: 3.386; SJR: D1; independent citations: 51)
29. Baran, S., Szák-Kocsis, Cs., Stehlík, M., D-optimal designs for complex Ornstein-Uhlenbeck processes. *J. Stat. Plan. Inference* **197** (2018), 93–106. (IF: 0.756; SJR: Q2/Q1/Q2; independent citations: 1)
30. Baran, S., K-optimal designs for parameters of shifted Ornstein-Uhlenbeck processes and sheets. *J. Stat. Plan. Inference* **186** (2017), 28–41. (IF: 0.814; SJR: Q2/Q1/Q2; independent citations: 4)
31. 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. (IF: 1.356; SJR: Q3; independent citations: 17)
32. Lerch, S., Baran, S., Similarity-based semi-local estimation of post-processing models. *J. R. Stat. Soc. Ser. C Appl. Stat.* **66** (2017), no. 1, 29–51. (IF: 1.750; SJR: Q1/Q1; independent citations: 32)

33. Baran, S., Nemoda, D., Censored and shifted gamma distribution based EMOS model for probabilistic quantitative precipitation forecasting. *Environmetrics* **27** (2016), no. 5, 280–292. (IF: 1.532; SJR: Q2/Q2; independent citations: 75)
34. Baran, S., Lerch, S., Mixture EMOS model for calibrating ensemble forecasts of wind speed. *Environmetrics* **27** (2016), no. 2, 116–130. (IF: 1.532; SJR: Q2/Q2; independent citations: 58)
35. Baran, S., Pap, G., Sikolya, K., Testing stability in a spatial unilateral autoregressive model. *Comm. Statist. Theory Methods* **45** (2016), 933–949. (IF: 0.311; SJR: Q3)
36. Baran, S., Lerch, S., Log-normal distribution based EMOS models for probabilistic wind speed forecasting. *Q. J. R. Meteorol. Soc.* **141** (2015), 2289–2299. (IF: 3.669; SJR: D1; independent citations: 103)
37. Baran, S., Sikolya, K., Stehlík, M., Optimal designs for the methane flux in troposphere. *Chemometr. Intell. Lab.* **146** (2015), 407–417. (IF: 2.217; SJR: Q2/Q2/Q2/Q2/Q2; independent citations: 3)
38. Baran, S., Möller, A., Joint probabilistic forecasting of wind speed and temperature using Bayesian model averaging. *Environmetrics* **26** (2015), no. 2, 120–132. (IF: 1.160; SJR: Q2/Q2; independent citations: 25)
39. Baran, S., Stehlík, M., Optimal designs for parameters of shifted Ornstein-Uhlenbeck sheets measured on monotonic sets. *Statist. Probab. Lett.* **99** (2015), 114–124. (IF: 0.506; SJR: Q2/Q2; independent citations: 3)
40. Gál, Z., Almási, B., Dabóczy, 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. (SJR: Q4/Q4; independent citations: 10)
41. 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. (IF: 0.500; SJR: Q3; independent citations: 8)
42. Baran, S., Horányi, A., Nemoda, D., Probabilistic temperature forecasting with statistical calibration in Hungary. *Meteorol. Atmos. Phys.* **124** (2014), no. 3-4, 129–142. (IF: 1.049; SJR: Q2; independent citations: 4)
43. Baran, S., Probabilistic wind speed forecasting using Bayesian model averaging with truncated normal components. *Comput. Stat. Data. Anal.* **75** (2014), 227–238. (IF: 1.400; SJR: Q1/Q1/Q1/Q1; independent citations: 73)

44. Baran, S., Horányi, A., Nemoda, D., Statistical post-processing of probabilistic wind speed forecasting in Hungary. *Meteorol. Z.* **22** (2013), no. 3, 273–282. (IF: 1.160; SJR: Q2; independent citations: 10)
45. 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. (IF: 0.531; SJR: Q3/Q2; independent citations: 2)
46. 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. (IF: 0.288; SJR: Q3/Q3)
47. 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. (SJR: Q4/Q3)
48. Baran, S., Sikolya, K., Parameter estimation in linear regression driven by a Wiener sheet. *Ann. Math. Inform.* **39** (2012), 3–15. (SJR: Q3/Q4)
49. Baran, S., Pap, G., Parameter estimation in a spatial unit root autoregressive model. *J. Multivariate Anal.* **107** (2012), 282–305. (IF: 1.063; SJR: Q1/D1/Q1; independent citations: 5)
50. 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. (independent citations: 3)
51. Baran, S., On the variances of a spatial unit root model. *Lith. Math. J.* **51** (2011), no. 2, 122–140. (IF: 0.486; SJR: Q2; independent citations: 3)
52. Baran, S., Pap, G., Asymptotic inference for a one-dimensional simultaneous autoregressive model. *Metrika* **74** (2011), no. 1, 55–66. (IF: 0.674; SJR: Q3/Q2; independent citations: 1)
53. Baran, S., Pap, G., Zuijlen, M. v., Parameter estimation of a shifted Wiener sheet. *Statistics* **45** (2011), no. 4, 319–335. (IF: 0.724; SJR: Q3/Q3)
54. 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. (IF: 1.017; SJR: Q2/Q1/Q2; independent citations: 4)
55. 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. (IF: 0.366; SJR: Q3; independent citations: 6)

56. 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. (SJR: Q4; independent citations: 26)
57. 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. (IF: 0.585; SJR: Q2/Q2; independent citations: 7)
58. Baran, S., A consistent estimator for nonlinear regression models. *Metrika* **62** (2005), no. 1, 1–15. (IF: 0.451; SJR: Q3/Q3; independent citations: 1)
59. 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. (IF: 0.284; SJR: Q3/Q3; independent citations: 7)
60. Baran, S., Pap, G., Zuijlen, M. v., Asymptotic inference for an unstable spatial AR model. *Statistics* **38** (2004), no. 6, 465–482. (IF: 0.323; SJR: Q3/Q3; independent citations: 5)
61. Baran, S., A consistent estimator for linear models with dependent observations. *Comm. Statist. Theory Methods* **33** (2004), no. 10, 2469–2486. (IF: 0.186; SJR: Q3; independent citations: 9)
62. 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.
63. 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. (IF: 0.498; SJR: Q2/Q2/Q2; independent citations: 9)
64. 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. (IF: 0.527; SJR: Q1/Q2; independent citations: 64)
65. Baran, S., A new consistent estimator for linear errors-in-variables models. *Comput. Math. Appl.* **41** (2001), no. 7-8, 821–833. (IF: 0.383; SJR: Q3/Q3/Q2; independent citations: 3)
66. Baran, S., Asymptotic properties of an estimator in functional errors-in-variables models. *Theory Probab. Appl.* **45** (2001), no. 4, 701–703. (IF: 0.110; SJR: Q4/Q4)
67. Baran, S., A consistent estimator in general functional errors-in-variables models. *Metrika* **51** (2000), no. 2, 117–132. (IF: 0.212; SJR: Q4/Q4; independent citations: 8)
68. 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. (IF: 0.314; SJR: Q2/Q3/Q2)

69. Arató, M., Baran, S., Ispány, M., Functionals of complex Ornstein-Uhlenbeck processes. *Comput. Math. Appl.* **37** (1999), no. 1, 1–13. (IF: 0.314; SJR: Q2/Q3/Q2; independent citations: 14)
70. 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. (SJR: Q4/Q3; independent citations: 5)
71. Kozma, L., Baran, S., On metrical homogeneous connections of a Finsler point space. *Publ. Math. Debrecen* **49** (1996), no. 1-2, 59–68. (IF: 0.099; independent citations: 8)

PEER-REVIEWED CONFERENCE PAPERS

1. Baran, S., Veress, L., Estimating the risk of a Down's syndrome term pregnancy using age and serum markers. Csóke et al. (ed.) *Proceedings of the 6th International Conference on Applied Informatics*, Eger, Hungary, January 27–31, 2004, Eszterházi Károly Főiskola, Eger, 2005, 75–84.
2. Baran, Á., Baran, S., On the weak convergence of a continuous state space simulated annealing. Kovács, E., Winkler, Z (ed.) *Proceedings of the 4th International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 30–September 3, 1999. Molnár és társa, Eger, 2001, 231–240.
3. 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 4th International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 30–September 3, 1999. Molnár és társa, Eger, 2001, 337–344.
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 3rd 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 3rd International Conference on Applied Informatics*, Eger–Noszvaj, Hungary, August 25–28, 1997. Nyomda Kft., Eger, 1999, 85–95. (independent citations: 2)
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.

Other publications

BOOK CHAPTER

1. Mayer, M. J., Baran, S., *Probabilistic PV forecasting*. In: Shirazi, E., van Sark, W. (eds.) *AI-Based Forecasting of Solar Photovoltaics Power Generation*. The Institution of Engineering and Technology, London, 2025, pp. 149–176.

LECTURE NOTES

1. Baran, S., *Exercises on testing hypotheses*. mobiDIÁK Electronic Publications, University of Debrecen, 2005. <http://mobidiak.inf.unideb.hu>. (in Hungarian)
2. Baran S., Fazekas I., Gelvitzky B., Iglói E., Ispány M., Kalmár I., Nagy M., Tar L., Verdes E., *Introduction to Mathematical Statistics*. Kossuth University Press, Debrecen, 1997, 523 pages. (Chapter X., pp. 345–380., in Hungarian) (independent citations: 1)

SOFTWARE

1. Yuen, R. A., Baran, S., Fraley, C., Gneiting, T., Lerch, S., Scheuerer, M., Thorarinsdottir, T. L., *R package ensembleMOS, Version 0.8.2: Ensemble Model Output Statistics* (2018). Available at: <https://cran.r-project.org/package=ensembleMOS> (independent citations: 12)

CONFERENCE TALKS

1. *Fair logarithmic score for multivariate Gaussian forecasts*. EGU General Assembly 2026, Vienna, Austria, May 3–8, 2026 (poster).
2. *Fair Box ordinate transform for multivariate Gaussian forecasts*. EGU General Assembly 2025, Vienna, Austria, April 27–May 2, 2025.
3. *Fair logarithmic score for multivariate Gaussian forecasts*. 17th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2024), London, United Kingdom, December 14–16, 2024 (invited).
4. *Machine learning-based parametric post-processing of solar irradiance ensemble forecasts*. EGU General Assembly 2024, Vienna, Austria, April 14–19, 2024.

5. *Discrete post-processing of visibility ensemble forecasts using machine learning*. 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023), Berlin, Germany, December 16–18, 2023 (invited).
6. *Optimal designs for complex Ornstein-Uhlenbeck processes with trend*. 16th German Probability and Statistics Days, Essen, Germany, March 7–10, 2023.
7. *K-optimal designs for parameters of shifted Ornstein-Uhlenbeck processes and sheets*. 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022), London, United Kingdom, December 17–19, 2022.
8. *K-optimal designs for regression models driven by Ornstein-Uhlenbeck processes and fields*. International Workshop “Statistics of Stochastic Processes in Discrete and Continuous Time”, Kyiv, Ukraine, October 11–12, 2022 (online, invited).
9. *Machine learning-based approaches to statistical post-processing of weather forecasts for power generation*. HITS Workshop on Post-processing, HITS, Heidelberg, Germany, July 20, 2022 (invited).
10. *Calibration of wind speed ensemble forecasts for power generation*. EGU General Assembly 2022, Vienna, Austria, May 23–27, 2022.
11. *Optimal designs for complex Ornstein-Uhlenbeck processes*. Modern Stochastic: Theory and Applications V, Kyiv, Ukraine, June 1–4, 2021 (online, invited plenary).
12. *Statistical calibration of ensemble forecasts of heat indices*. Joint SRNWP-EPS and Post-processing workshop 2020, October 27–30 2020, BlueJeans video-conference meeting (invited plenary).
13. *Statistical methods in weather forecasting*. 11th International Conference on Applied Informatics, Eger, Hungary, January 29–31, 2020 (invited plenary).
14. *Statistical post-processing of water level forecasts*. 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019), London, United Kingdom, December 14–16, 2019 (invited).
15. *Statistical post-processing of dual-resolution ensemble forecasts*. EGU General Assembly 2019, Vienna, Austria, April 8–12, 2019 (invited).
16. *Similarity-based semilocal estimation of post-processing models*. IX. International Workshop on Applied Probability (IWAP 2018), Budapest, Hungary, June 18–21, 2018.
17. *Combining predictive distributions for calibration of ensemble forecasts for precipitation accumulation*. 13th German Probability and Statistics Days, Freiburg, Germany, February 27–March 2, 2018.

18. *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.
19. *Statistical post-processing of ensemble forecasts for precipitation accumulation.* TIES-GRASPA 2017, Bergamo, Italy, July 24–26, 2017 (invited).
20. *Mixture EMOS model for calibrating ensemble forecasts of wind speed.* 12th German Probability and Statistics Days, Bochum, Germany, March 1–4, 2016.
21. *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 (invited).
22. *Log-normal distribution based EMOS models for probabilistic wind speed forecasting.* European Meeting of Statisticians, Amsterdam, The Netherlands, July 6–10, 2015.
23. *Joint calibration of temperature and wind speed forecasts using Bayesian Model Averaging.* 12th Workshop on Stochastic Models, Statistics and Their Applications, Wroclaw, Poland, February 16–20, 2015.
24. *Probabilistic methods in wind speed forecasting.* Latin American Congress of Statistical Societies (CLATSE2014), La Serena, Chile, October 20–23, 2014 (invited plenary).
25. *Comparison of BMA and EMOS statistical calibration methods for ensemble weather prediction.* 3rd Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA2014), Lisbon, Portugal, June 11–14, 2014.
26. *Statistical post-processing of ensemble forecasts.* ECMI workshop on “The mathematics of air pollution”, Budapest, Hungary, May 26–27, 2014 (invited plenary).
27. *Probabilistic wind speed forecasting using Bayesian model averaging with truncated normal components.* 11th German Probability and Statistics Days, Ulm, Germany, March 4–7, 2014.
28. *Statistical calibration of ensemble forecasts.* 9th International Conference on Applied Informatics, Eger, Hungary, January 29–February 1, 2014.
29. *Probabilistic temperature forecasting with statistical calibration in Hungary.* 29th European Meeting of Statisticians, Budapest, Hungary, July 20–25, 2013.
30. *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.

31. *Parameter estimation and testing stability in a spatial unilateral autoregressive model.* Modern Stochastic: Theory and Applications III, Kyiv, Ukraine, September 10–14, 2012 (invited).
32. *Parameter estimation in linear regression driven by a Gaussian random field.* 8th World Congress in Probability and Statistics, Istanbul, Turkey, July 9–14, 2012.
33. *Probabilistic wind speed prediction in Hungary.* 10th German Probability and Statistics Days, Mainz, Germany, March 6–9, 2012.
34. *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.
35. *Parameter estimation in a spatial unit root autoregressive model.* Applied Stochastic Models and Data Analysis (ASMDA2011), Rome, Italy, June 7–10, 2011.
36. *Asymptotic inference of a spatial unit root autoregressive model.* Modern Stochastic: Theory and Applications II, Kyiv, Ukraine, September 7–11, 2010 (invited).
37. *Parameter estimation in a spatial unit root autoregressive model.* 10th International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, Lithuania, June 28–July 2, 2010.
38. *On the covariance structure of an unstable unilateral spatial autoregressive model.* 27th European Meeting of Statisticians, Toulouse, France, July 20–24, 2009.
39. *Parameter estimation in unstable unilateral spatial autoregressive models.* Probability and Statistics with Applications, Debrecen, Hungary, June 8–12, 2009.
40. *Risk estimation in Down's syndrome screening.* XXVIII. International Seminar on Stability Problems for Stochastic Models, Zakopane, Poland, May 31–June 5, 2009.
41. *Asymptotic inference for a one-dimensional simultaneous autoregressive model.* Barcelona Conference on Asymptotic Statistics, Barcelona, Spain, September 1–5, 2008.
42. *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.
43. *Mean estimation of a shifted Wiener sheet.* 5th International Conference on Levy Processes: Theory and Applications, Copenhagen, Denmark, August 13–17, 2007 (poster).
44. *Prediction of macroeconomic quantities using stochastic models.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, July 9–13, 2007.

45. *An estimator for nonlinear regression models.* XXVI. International Seminar on Stability Problems for Stochastic Models, Sovata-Bai, Romania, August 27–September 2, 2006.
46. *Mean estimation of the Wiener sheet.* 26th European Meeting of Statisticians, Torun, Poland, July 24–28, 2006.
47. *Asymptotic inference for unstable spatial AR models.* 9th International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, Lithuania, June 25–30, 2006.
48. *Asymptotic inference for unit roots in spatial autoregression.* 25th European Meeting of Statisticians, Oslo, Norway, July 24–28, 2005.
49. *Prediction of Hungarian mortality rates using Lee-Carter method.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, June 19–24, 2005.
50. *A consistent estimator for nonlinear regression models.* COMPSTAT 2004, Prague, Czech Republic, August 23–27, 2004 (poster).
51. *Asymptotic inference for a nearly unstable sequence of stationary spatial AR models.* Third Croatian Congress of Mathematics, Split, Croatia, June 16–18, 2004.
52. *Parameter estimation in linear measurement error models.* Workshop Risk Analysis and Other Applications of Statistics, Budapest, Hungary, April 13–14, 2004.
53. *Estimating the risk of a Down's syndrome term pregnancy using age and serum markers.* 6th International Conference on Applied Informatics, Eger, Hungary, January 27–31, 2004.
54. *Asymptotic inference for an unstable triangular spatial AR model.* Statistical Inference in Linear Models, Bedlewo, Poland, August 21–27, 2003.
55. *An application of stochastic optimization in earth sciences.* Applied Mathematics and Scientific Computing, Brijuni, Croatia, June 23–27, 2003.
56. *A consistent estimator for linear measurement error models.* 24th European Meeting of Statisticians 2002, Prague, Czech Republic, August 19–23, 2002.
57. *Estimation of the mean of a Wiener sheet.* 23rd European Meeting of Statisticians 2001, Funchal, Madeira, Portugal, August 13–19, 2001.
58. *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.
59. *A new estimator in linear measurement error models.* STAT'2000, International Conference on Mathematical Statistics, Szklarska Poreba, Poland, August 21–25, 2000.

60. *Estimation of the mean of Ornstein-Uhlenbeck processes.* Fourth Meeting of Austrian, Slovenian, Italian and Hungarian Young Statisticians, Pécs, Hungary, October 8–10, 1999 (invited).
61. *Asymptotic properties of an estimator in functional errors-in-variables models.* XX. International Seminar on Stability Problems for Stochastic Models, Lublin–Nałęczów, Poland, September 5–11, 1999.
62. *On the weak convergence of a continuous state space simulated annealing.* 4th International Conference on Applied Informatics, Eger–Noszvaj, Hungary, August 30–September 3, 1999.
63. *Application of limit theorems for errors-in-variables models.* Colloquium on Limit Theorems of Probability and Statistics, Balatonlelle, Hungary, June 28–July 2, 1999.
64. *On functionals of complex Ornstein-Uhlenbeck processes.* Austrian, Hungarian, and Slovenian Joint Meeting of Young Statisticians, Piran, Slovenia, October 9–11, 1998 (invited).
65. *An Application of simulated annealing to ML-estimation of a partially observed Markov Chain.* 3rd International Conference on Applied Informatics, Eger–Noszvaj, Hungary, August 24–28, 1997.
66. *Asymptotic properties in space and time of an estimator in errors-in-variables models in the presence of validation data.* 10th European Young Statistician Meeting, Warsaw, Poland, August 18–22, 1997 (invited).