Curriculum vitae, Sándor Baran

Education, degrees

- Habilitation in Mathematical Sciences, University of Debrecen, 2006.
- PhD in Mathematics and Computer Science, University of Debrecen, 2001 (summa cum laude).
- MSc Degree: Mathematics, Kossuth Lajos University, Debrecen, 1995 (excellent).
- MSc Degree: Teacher of mathematics, English-Hungarian technical translator of mathematics, Kossuth Lajos University, Debrecen, 1996 (excellent).

Scientific Awards

- János Bolyai Research Scholarship of the Hungarian Academy of Sciences, 2015 - 2018;
- Gyires Béa Prize, awarded by the Section of Mathematics of the Hungarian Academy of Sciences, 2012;
- Award of the Faculty of Informatics, University of Debrecen, 2006;
- Farkas Gyula Prize, awarded by the János Bolyai Mathematical Society, 2004;
- János Bolyai Research Scholarship of the Hungarian Academy of Sciences, 2001 - 2004;
- Grünwald Géza Prize, awarded by the János Bolyai Mathematical Society, 2004.

Research interests

- Probabilistic weather forecasting;
- Parameter estimation problems of discrete and continuous random fields;
- Parameter estimation problems in classical and measurement error regression models;
- Applied statistics (biological, geological and medical applications);
- Stochastic optimization (simulated annealing).

Publications

Papers in peer-reviewed journals:

- Published: **44**
- Accepted: **0**
- Submitted: **1**

Papers in conference proceedings:

- Published: **6**

Contributions to international conferences:

- Invited talks: **10**
- Talks: **39**
- Posters: **2**

Cumulative impact factor: **31.705**
Number of independent citations: **220**

Research trips

- European Centre for Medium-Range Weather Forecasts, United Kingdom, 21 – 24.11.2017, 14 – 25.05.2018;
- Heidelberg Institute for Theoretical Studies, Germany, 06.07 – 31.07.2014, 01.07 – 31.07.2015, 01.07 – 31.07.2016, 01.07 – 31.07.2017;
- Federico Santa María Technical University, Valparaíso, Chile, 29.05 – 09.06.2015;
- University of Heidelberg, Germany, 01.03 – 31.08.2013, visiting professor;
- Johannes Kepler University, Linz, Austria, 2011 – 2017 (2 – 4 weeks every year);
- University of Alberta, Edmonton, Canada, 13.01 – 03.02.2007;
- Radboud University Nijmegen, The Netherlands, 1999 – 2009 (2 – 4 weeks every year);
- Chalmers University of Technology, Göteborg, Sweden, 15.02 – 15.03.1996, 01.06 – 28.06.1997.

Research grants

- National Research, Development and Innovation Office, Grant No. NN125679, *Statistical post-processing of ensemble forecasts for various weather quantities*. 2018–2022, project leader.
- Hungarian – Austrian intergovernmental S&T cooperation programme, TÉT 15-1-2016-0046. *Investigation of stochastic models based on Ornstein-Uhlenbeck sheets with applications in environmental sciences.* 2016–2018, project leader.
- TÁMOP-4.2.2.C-11/1/KONV-2012-0001. *Future internet research from theory to applications.* 2012–2014, subproject 5, research topic 5.5, group leader.
- Hungarian – Austrian intergovernmental S&T cooperation programme, TÉT 10-1-2011-0712. *Optimal design for parameters of Ornstein-Uhlenbeck processes and sheets.* 2012–2014, project leader.
- Hungarian Scientific Research Fund, Grant No. OTKA NK101680/2012. *Mathematical modelling of clinical observations for improved melanoma detection.* 2012–2014, participant.
- TÁMOP-4.2.1./B-09/1/KONV-2010-0007/IK/IT. 2010–2012, participant.
- Hungarian Scientific Research Fund, Grant No. OTKA T079128/2009. *Limit theorems and their applications.* 2009–2013,

participant.

- Hungarian Scientific Research Fund, Grant No. OTKA T048544/2005. *Limit theorems and their applications.* 2005–2007, participant.
- Hungarian Scientific Research Fund, Grant No. OTKA F046061/2004. *Statistical investigation of stochastic models.* 2004–2007, project leader**.**
- Hungarian Scientific Research Fund, Grant No. OTKA F032060/2000. *Investigation of nonlinear regression and time series models.* 2000–2003, participant.
- Hungarian Scientific Research Fund, Grant No. OTKA T032361/2000. *Statistical investigation of stochastic models.* 2000–2003, participant.
- FKFP 0121/1999, participant.
- TEMPUS SJEP project no. 9521. *Preparing a statistical services unit in Hungary.* 1996–1997, participant.

Positions

Department of Applied Mathematics and Probability Theory, Faculty of Informatics, University of Debrecen:

- September 1, 2006 – : Associate Professor;
- July 1, 2001 – August 31, 2006: Assistant Professor;
- July 1, 1999 – June 30, 2001: Instructor;
- July 1, 1998 – June 30, 1999: Computer Assistant.

Institute of Applied Mathematics, University of Heidelberg:

- March 1 – August 31, 2013: Visiting Full Professor

Membership of professional bodies

- János Bolyai Mathematical Society (since 2018).
- The International Environmetrics Society (since 2017).
- European Regional Committee of the Bernoulli Society (2013 - 2016).
- Public law association of the Hungarian Academy of Sciences (since 2004).

Editorial and reviewing work

- Member of the Editorial Board of the *Alkalmazott Matematikai Lapok.*
- Reviewer of the Hungarian Scientific Research Fund.
- Reviewing work for journals:
  Acta Scientiarum Mathematicarum (Szeged), *Advances in Atmospheric Sciences*, *Applied Energy*, *Biometrics*, *Communications in Statistics – Theory and Methods*, *IEEE Transactions on Mobile Computing*, *IEEE Transactions on Signal Processing*, *International Journal of Forecasting*, *Journal of Applied Meteorology and Climatology*, *Journal of Multivariate Analysis*, *Journal of the Royal Statistical Society Series C*, *Lithuanian Mathematical Journal*, *Metrika*, *Publicationes Mathematicae Debrecen*, *Quarterly Journal of the Royal Meteorological Society*, *Software X*, *Statistical Papers*, *Statistics*, *TEST*, *Theory of Probability and Mathematical Statistics.*

Language skills

English (advanced, C2), Russian (advanced, C2), Italian (beginner, A1.2), German (beginner, A1.2).