Zoltán Esik - Curriculum vitae

Citizenship: Hungary
Personal: Born June 25, 1951 in Szeged, Hungary. Married, two children.

Education:

1. University Education: Mathematics, Faculty of Science, A. József University (Szeged), 1969–1974. MSc in 1974.
2. High school: 1965–1969, special class in Mathematics, Ságvári Endre High school, Szeged. Finished 4th in the nationwide competition in Mathematics for high school students in 1969.

Academic Degrees

1. Doctor of the Hungarian Academy of Science, 1996. Thesis: Iteration Theories.
2. Habilitation in Computer Science: A. József University, Szeged, 1995. Thesis: Iteration Theories.
3. Candidate of Math. Sci.: Hungarian Academy of Sciences, 1985. Thesis: Top-down tree transformations.
4. University Doctor (PhD): A. József University (Szeged), 1979. Thesis: Decidability results concerning tree transformations.
5. University Diploma (MS) in Mathematics: A. József University (Szeged), 1974.

Employment

- July 1, 1997–present: Full Professor, Department of Foundations of Computer Science, Institute of Informatics, University of Szeged (formerly: A. József University), Hungary. Head of the Department of Foundations of Computer Science since October 2003.
- 1990–96: Associate Professor, Department of Foundations of Computer Science, Institute of Informatics, A. József University, Szeged, Hungary.
- July 1, 1996–July 1 1997: Associate Professor, Institute of Mathematics and Informatics, L. Kossuth University, Debrecen, Hungary (part time).
- 1987–89: Associate Professor, Department of Computer Science, Institute of Mathematics, A. József University, Szeged, Hungary.
- 1979–86: Lecturer, Department of Computer Science, Institute of Mathematics, A. József University, Szeged, Hungary.
- 1974–78: Assistant Professor, Department of Computer Science, Institute of Mathematics, A. József University, Szeged, Hungary.

Employment Related Activities

1. Leader of the Ph. D. Program in Informatics of the University of Szeged, 2001–2004.
2. Deputy director of the Ph. D. School in Mathematics and Computer Science of the University of Szeged, 2001–2004.

Visiting Positions and Fellowships

1. Visiting scientist Kyoto Sangyo University, Kyoto, Japan, September 2008, September 2007, October 2006, June 2005, August 2003.
2. May 2003, Visiting professor, University of Bordeaux, France.
3. September 2002, Visiting scientist, Kyoto Sangyo University, Kyoto, Japan.
4. June and July 2002: Visiting Professor, TU Dresden, Germany.
5. May 2002: Visiting Professor, LIAFA, Denis Diderot University, Paris.

6. May 1, 2001 – April 30, 2002: Visiting Professor, University of Aalborg, Denmark.
7. January 2001: Vising Scientist, Kyoto Sangyo University, Japan.
8. March 2000: Vising Scientist, Kyoto Sangyo University, Japan.
9. June 2000: Vising Professor, University of Waterloo, Canada.
10. 01.01.1999–31.06.1999: Vising Professor, University of Aizu, Japan.
11. June 15 – September 15, 1997: Fulbright Research Fellow, Stevens Institute of Technology, Hoboken, USA.
12. February 1 – March 31 1997: JSPS Research Fellow, Kyoto Sangyo University, Japan.
13. May 1997: Visiting Professor, LIAFA, Universit´e Paris 6 and 7, France.
14. February 15 – April 15, 1997: JSPS Research Fellow, Kyoto Sangyo University, Japan.
15. Fall of 1994: Alexander von Humboldt Research Fellow, Institute of Informatics, University of Stuttgart, Germany.
16. Fall of 1993: COST Research Fellow, LFCS, Department of Computer Science, The University of Edinburgh, UK.
17. Fall of 1990: Visiting Professor, Department of Computer Science, Stevens Institute of Technology, New Jersey, USA.
18. 1988-89: Alexander von Humboldt Research Fellow, Institute of Informatics, Technical University of Munich, Germany.
19. September 1983 – August 1984: Visiting professor, Department of Pure and Applied Mathematics, Stevens Institute of Technology, New Jersey, USA.

Courses Conducted

Process algebra. Finite transition systems. Automata and Formal Logic. Logic in Computer Science. Mathematical Logic. Iteration Theories. Categories in Computer Science. Mathematical Semantics. Introduction to Complexity. Computability. Automata and Formal Languages. Operating Systems. Compilers. Programming. Linear Algebra. Numerical Analysis. Calculus.

Research Interest

Automata and Formal Language Theory. Algebra, Categories and Logic in Computer Science. Fixed Point Theory, Iteration Theories. Concurrency. Semantics.

Publications

Approx. 190 research articles, 1 research monograph and 25 edited volumes.

Editorial Work

1. Member of Editorial Board, J. of Mathematics and Computer Science, since 2009.
2. Member of Editorial Board, Alkalmazott Matematikai Lapok (J. Appl. Math. (Hungarian)), since 2004.
3. Member of the Editorial Board, Theoretical Computer Science, Track A, since 1999.
4. Member of Editorial Board, Theoretical Informatics and Applications, since 1998.
5. Member of Editorial Board, Discrete Mathematics and Theoretical Computer Science, 1996–2001.
6. Member of Editorial Board, Acta Cybernetica, since 1987.
7. Member of Editorial Board, Acta Sci. Math., 1986–2000.
8. (Co-)editor of several volumes and special issues of journals devoted to conferences and/or workshops, see the publication list.

Membership in International Learned Bodies and Professional Associations

- Member of the steering committee of FICS workshop series, since 2009.
- Member of the Steering Committee of the Algebraic Informatics conference series, since 2008.
- Member of the Board of the European Association for Computer Science Logic, since 2005.
- Member of WG 1.8 (Concurrency) of IFIP TC1.

- Member of the Council of the European Association for Theoretical Computer Science (EATCS), since 2003.
- Member of IFIP Technical Committee 1 (Theoretical Computer Science), since 2001. (Hungarian representative)
- Member of the Steering Committee of the Fundamental of Computation Science (FCT) Conferences, since 1998.
- Member of the European Association for Theoretical Computer Science, since 1985.

Membership in Learned Bodies, Professional Associations and Committees in Hungary

- Member of the Board of Experts, National Fellowship Committee of Hungary, since 2008.
- Member of the Mathematics Committee of the János Bolyai Fellowship Award, Hungarian Academy of Sciences, since 2006.
- Member of the Board for Natural Sciences and Mathematics, National Foundation for Scientific Research of Hungary, 2003 – 2005.
- Member of the Computer Science Committee of the Hungarian Academy of Science, 1994–1996, 2002–2004, 2005 – 2007.
- Member of the Computer Science Habilitation Committee, University of Szeged (A. József University) since 1997.
- Member of the Doctoral Committee of the Faculty of Science of L. Kossuth University, Debrecen, 1996–98.
- Member of the Mathematical Jury of the Hungarian National Foundation for Scientific Research, 1995–98.
- Chairman of the Doctoral Committee of the Institute of Informatics of the Faculty of Science of University of Szeged (A. J´ozsef University), 1993–2004.
- Member of the Doctoral Committee of the Faculty of Science of University of Szeged, since 1993.

Invited Lectures at Conferences and Workshops

- Invited speaker, Highlights of AUTOMATHA, Vienna, 2010.
- Invited speaker, Weighted Automata: Theory and Applications, Leipzig, 2010.
- Invited speaker, Dagstuhl seminar on Quantitative Models, 2010.
- Invited speaker, AUTOMATHA 09, Liege, Belgium.
- Invited lecturer, Summer School on Algebraic Theory of Automata, Lisbon, 2008.
- Invited speaker, DLT 08, Kyoto, 2008.
- Invited speaker, WATA 08, Dresden, 2008. Invited speaker, Conference on Algebraic Informatics, Thessaloniki, 2005.
- Invited speaker, Mathematical Foundations of Computer Science, Palics, 2005.
- Invited speaker, Novi Sad Algebraic Conference, 2005.
- Invited lecturer, International Ph. D. School of Formal Language Theory and Applications, Tarragona, 2004.
- Invited speaker, Weighted Automata: Theory and Applications, Dresden, 2004.
- Invited speaker, Coalgebraic Methods in Computer Science, Warsaw, 2003.
- Invited lecturer, International School of Formal Language Theory, Tarragona, 2003.
- Invited speaker, Developments in Language Theory, Kyoto, 2002.
- Invited speaker, Weighted Automata and Applications, Dresden, 2002.
- Invited speaker, Int. Conf. Discrete Mathematics and Applications, Blagoevgrad, 2001.
- Invited speaker, Dagstuhl seminar on Applications of Kleene Algebra, 2001.
- Invited speaker, Expressiveness in Concurrency 01, Aalborg, 2001.
- Invited speaker, Workshop on Max-Plus Algebras, Prague, 2001.
- Invited speaker, Fixed Points in Computer Science 2001, Firenze.
- Invited speaker, Developments in Language Theory, 2001, Vienna.
- Invited speaker, Dagstuhl Seminar on Logic, Algebra, and Formal Verification, 2000.
- Invited speaker, Category Theory 2000, Como, Italy.
- Invited speaker, Words, Languages and Combinatorics, Kyoto, 2000.

- Invited speaker, Algebraic Engineering, AE '97, Aizu.
- Invited speaker, Logic in Computer Science '95, Novi Sad.
- Invited speaker, Mathematical Foundations of Computer Science '94, Kosice, Slovakia.
- Invited speaker, IMYCS '88, Smolenice, Czechoslovakia.

Other conference and seminar presentation

Talks at cca. 70 international conferences and workshops. Seminar and/or colloquium presentations at the following universities and research centers (several talks at some places): BRICS, Aarhus, University of Aalborg, CWI, Amsterdam, RIMS, Kyoto, Kyoto Sangyo University, University of Aizu, University of Tsukuba, University of Bremen, University of Hamburg, University of Hanover, University of Magdeburg, Unversity of Leipzig, University of Saarbr¨ucken, University of Turku, Stevens Institute of Technology, Technical University of M¨unchen, University of Rome, University of Edinburgh, University of Stuttgart, University of Sao Paulo, City University of New York, UCLA, Shimane University, LIAFA, University of Paris 6 and 7, University of Metz, University of Waterloo, TU Vienna, University of Linz, Sydney Category Seminar, University of Florence, Autonomous University of Barcelona, University of Matsue, University of Kassel, University of Pisa, LaBRI, University of Bordeaux, Stanford University, University of Tarragona, University of Brno, University of Reykjavik.

Other Professional Activities

- Member of PC, ICALP 2011.
- Member of PC, FST & TCS, Chennai, India, 2010.
- Member of PC, FICS 10, Brno, 2010.
- Member of PC, FICS 09, Coimbra, Portugal, 2009.
- Member of PC, MEMICS 09, Brno, 2009.
- Member of Program Committee, DLT 09, Stuttgart, Germany.
- Chair of PC, QUANTLOG 09, Rhodes, Greece.
- Member of the Program Committee, STACS 09, Freiburg, Germany.
- Member of PC, MEMICS 08, Brno.
- Member of PC, LATA 08, Tarragona, 2008.
- Co-chairman of PC, AFL 08, Balatonf¨ured, 2008.
- Member of PC, DLT 08, Kyoto, 2008.
- Member of PC, LATA 08, Tarragona, 2008.
- Member of Program Committee, FOSSACS 08, Budapest, 2008.
- Co-chairman of Program Committee, FCT 07, Budapest, 2007.
- Member of Program Committee, LATA 07, Tarragona, 2007.
- Member of Program Committee, MEMICS 07, Brno, 2007.
- Member of Program Committee, Algebraic Informatics, Thessaloniki, 2007.
- Member of Scientific Committee, Algebraic Theory of Automata and Logic, Szeged, 2006.
- Member of Program Committee, Logic, Models and Computer Science, Camerino, 2006.
- Member of Program Committee, DLT 06, Santa Barbara, 2006.
- Member of Program Committee, RELMICS/AKA 06, Manchester, 2006.
- Chairman of Program Committee, CSL 06, Szeged, 2006.
- Member of Program Committee, FOSSACS 06, Vienna, 2006.
- Member of Program Committee, CSL 05, Oxford, 2005.
- Member of Program Committee, ICALP 2005, Track B: Logic, Semantics, and Theory of Programming.
- Co-chairman of Program Committee, Automata and Formal Languages, Dobog´ok˝o, 2005.
- Member of Program Committee, Developments in Language Theory, Palermo, 2005.
- Member of Program Committee, Developments in Language Theory, Auckland, 2004.
- Member of Organizing and Program Committee, Process Algebra: Open Problems and Future Directions, Bertinoro, Italy, 2003.
- Member of Program Committee, Expressiveness in Concurrency, EXPRESS 03, Marseilles, France.
- Member of Program Committee, FCT 03, Malm¨o, Sweden.
- Co-chairman of Program Committee, FICS 03, Warsaw, Poland.

- Co-chairman of Program Committee, Developments in Language Theory 2003, Szeged.
- Member of Advisory Board, Automata and Formal Languages, AFL 02, Debrecen.
- Co-chairman of Program Committee, FICS 02, Copenhagen, 2002.
- Member of Program Committee, FICS 2000, Paris.
- Member of the Advisory Committee, Automata and Formal Languages AFL '99, Vasszéchény, 1999.
- Chairman of Program Committee, Fixed Points in Computer Science FICS 98, Brno, 1998.
- Member of ProgramCommittee, Foundations of Software Science and Computation Structures, FoSSaCS '98 Lisbon.
- Member of Program Committee, Universal Machines and Computations '98, Metz.
- Member of Program Committee, FCT '97, Krakow.
- Member of Program Committee, Logic in Computer Science LIRA '97, Novi Sad, September 1–4, 1997.
- Member of Program Committee, Automata and Formal Languages AFL '96 Salgótarján.
- Member of Program Committee, FCT '95, Dresden.
- Member of Program Committee, STACS '95, Munich.
- Chairman of Program Committee, Fundamentals of Computation Theory, Szeged, 1993.

Professional Awards

- Master teacher, Ministry of Education of Hungary, 2005.
- Széchenyi Professor Award, 1997.
- Winner of *Gy. Farkas Research Award*, János Bolyai Mathematical Society, 1980.
- Winner of *K. Rényi Research Award*, János Bolyai Mathematical Society, 1974.

Research Grants

1. 2008–2012: *Automata, Fixed Points, and Logic*, National Foundation of Hungary for Scientific Research, OTKA K 75249, principal investigator.
2. 2005–2010: Member of the Executive Board and Steering Committee of the ESF project AUTOMATHA.
3. 2007–2009: *Algebraic Theory of Automata*, Hungarian Academy of Science and CNRS, principal co-investigator (French partner: Jean-Eric Pin).
4. 2006–2008: *Automata and Formal Languages*, Hungarian Academy of Science and Japan Society for the Promotion of Science, MTA-JSPS 101, principal co-investigator. (Japanese partner: Masami Ito).
5. 2004–2007: *Automata, Trees, and Logic*, National Foundation of Hungary for Scientific Research, OTKA T 46686.
6. 2001–2004: *Iteration theories*, Principal Investigator, National Foundation of Hungary for Scientific Research, OTKA T35163.
1. 2001–2002: *Algebraic Structures in Automata and Language Theory*, Austrian-Hungarian Action Foundation, 47.
1. 2000–2001: *Fixed Points in Language Theory*, Principal Investigator, Austrian-Hungarian cooperative research grant, A-4/1999.
2. 1999–2002: *Concurrent Processes and Formal Languages*, Principal Investigator, National Foundation of Hungary for Scientific Research, OTKA, #T30511.
3. 1999–2000: *Fixed Points in Computer Science*, Principal Investigator, Ministry of Education of Hungary, FKFP 247/1999.
4. 1997: *The Shuffle Operation on Languages and Posets*, Japan Society for the Promotion of Science, principal investigators: Z.Ésik and M. Ito
5. 1997–2000: *Compositions of Tree Automata and Varieties of Tree Languages*, Ministry of Education of Hungary, FKFP 704.
6. 1997–99, *Algebraic Structures in the Theory of Automata and Formal Languages*, Principal Investigator, Austrian–Hungarian Action Foundation.
7. 1997-99, *Algebraic Aspects of Automata and Formal Languages*, Principal Investigator, French–Hungarian Joint Project, BALATON F28/96.

8. 1997–2000: *Iteration Theories*, Principal Investigator, Hungarian National Foundation for Scientific Research, #T22423.
9. 1996-97: *Iteration Theories*, Principal Investigator, Ministry of Education of Hungary, 7/1996.
10. 1996-97: *Computational Models for Trees*, Ministry of Education of Hungary, 665/96.
11. 1995-97: *Iteration Theories*, Principal Investigator, US-Hungarian Joint Fund, J.F.No. 351.
12. 1995-97: *Iteration Theories*, Principal Investigator, Hungarian National Foundation for Scientific Research, # T16344.
1. 1993: *Iteration Theories and Concurrency*, Commission of the European Community, CIPA 3511CT920168.
1. 1993-1996: *Structural Theory of Automata*, Principal Investigator, Hungarian National Foundation for Scientific Research, #T7383.
1. 1991-1994: *Iteration Theories*, Principal Investigator, Hungarian National Foundation for Scientific Research, #2037.
1. 1991-1993: *Applications of Iteration Theories*, Joint grant with S.L. Bloom, Hungarian Academy of Sciences and NSF (USA), #INT-90 16123.
1. 1986-1990: *Structural Theory of Automata*, Principal Investigator, Hungarian National Foundation for Scientific Research, #1144.

Doctoral students

Z. Fülöp (1983), M. Bartha (1983), L. Bernátsky (2000), Sz. Iván (2008), Z.L. Németh (2008). Current doctoral students: T. Hajgató, Á. Mészáros.