

# Curriculum vitae

December 5, 2024

## 1 Personal Data

Name: Péter L. Erdős

Born: August 24. 1956

Citizenship: Hungarian

Languages: Hungarian (native), English (fluent), German, and Dutch (read)

Spouse: Gabriella Erdős

Children: Dorka (1985), Marci (1988)

Home address: H-1037 Budapest, Góbé u. 11/3, Hungary, Phone: +36302746940

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Mailing address: H-1053, Reáltanoda u. 13-15, Budapest, Hungary,

## 2 Education

Doctor of the Hungarian Academy of Sciences, 2008

Candidate of the Mathematical Sciences, Hung. Academy of the Sciences, 1991

Ph. D. Eötvös L. University, Budapest, 1982, advisor: G.O.H. Katona

M.S. Eötvös L. University, Budapest, 1980, advisor: M. Simonovits

## 3 Positions

2009– Research Professor, A. Rényi Institute of Mathematics, Eötvös Lóránd Research Network (ELKH), Budapest, Hungary

2002–2009 Senior research associate, A. Rényi Institute of Mathematics, Hungarian Academy of Sciences, Budapest, Hungary

1997– 2002 Senior research associate, Head of Department, A. Rényi Institute of Mathematics, Hungarian Academy of Sciences, Budapest, Hungary

1995–1996 Lecturer, Institute of Mathematics and Computer Science, University of Agriculture, Gödöllő, Hungary

1983–1996 Research Fellow by Title, Mathematical Institute of the Hungarian Academy of the Sciences

1994–1995 Computer Advisor to the Hungarian delegation to Organization for Prohibition of Chemical Weapons, United Nations, The Hague, The Netherlands

- 1992–1995 Visiting researcher, Center for Mathematics and Computer Science, Amsterdam, The Netherlands
- Spring 1992 Research fellow, Department of Applied Mathematics, University of Twente, Enschede, The Netherlands
- Fall 1991 Universitair Docent, Department of Econometrics, University of Groningen, Groningen, The Netherlands
- Spring 1991 Research fellow, Department of Applied Mathematics, University of Twente, Enschede, The Netherlands
- 1989–1990 Research fellow of the A.v.Humboldt Stiftung, Institut für Ökonometrie und Operations Research, University of Bonn, Bonn, Germany
- 1985–1989 Various positions in the computer business, Budapest Hungary
- 1980–1987 Assistant Professor of Mathematics, University of Economics, Budapest

## **4 Mentoring young researchers**

- 2019–2023 Tamás Róbert Mezei, A. Rényi Institute of Mathematics.

## **5 Memberships**

- 2019 Visiting Professor, School of Computing, Engineering and Mathematics, Western Sydney University, Sydney, Australia.
- 2013 Visiting Professor, Dept. of Physics, University of Notre Dame, IN, USA.
- 2008 Visiting Fellow in the School of Computing Sciences, University of East Anglia, Norwich, UK.
- 2006–2020 Hungarian Society for Bioinformatics,
- 2002–2003 Member of the Research Group - "General Theory of Information Transfer and Combinatorics", ZIF, University of Bielefeld, Germany
- 1995– Institute of Combinatorics and its Applications, Winnipeg, Canada
- 1978– J. Bolyai Mathematical Association, Budapest, Hungary

## **6 Recent short-term visits**

- Sept. - Dec. 2024 "Theory, Methods, and Applications of Quantitative Phylogenomics", ICERM, Brown University, Providence, RI
- October 2019 Western Sydney University, Sydney; University of Tasmania, Hobart; Australia
- June - July 2019 University of Notre Dame, Indiana, USA
- October 2018 Northeastern University, Boston, USA

October 2018 University of Notre Dame, Indiana, USA

October 2018 University of Illinois at Urbana-Champaign, Illinois, USA

April / May 2018 University of Canterbury, Christchurch, New Zealand, University of New South Wales, Sydney, Australia

March 2018 Technical University of Delft, Delft, The Netherlands

May 2017 Technical University of Delft, Delft, The Netherlands

April 2017 Tel Aviv University, Tel Aviv, Israel;

April 2016 University of Colorado at Denver, Denver, Colorado; Los Alamos National Laboratory, Los Alamos, New Mexico, USA

November 2015 Tel Aviv University, Tel Aviv, Israel

Sept.-Dec. 2014 Humboldt Fellow, Universität Hamburg, Hamburg, Germany

June 2013 Max-Planck-Institute für Physik Komplexer Systeme, Dresden, Germany

March 2013 University on Notre Dame, Indiana, USA

Feb. 2013 Warwick Complexity Forum, University of Warwick, UK

Jan.-April 2011 Humboldt Fellow, University of Bielefeld, Germany

Oct.-Dec. 2010 University of Illinois at Chicago, USA

## 7 Acting as scientific expert for international projects

Jan. 2022 Reviewer of Paris Region Fellowship Programme, MSCA, France

Jan. 2021 Reviewer of Paris Region Fellowship Programme, MSCA, France

2016 – 2020 Reviewer for H2020 MSCA IF - MAT

Jan. 2016 Reviewer for ICT Programme PLEXMATH

Jan. 2015 NSA Mathematical Sciences Grants Program

2014 - 2023 Different European Union sponsored research programs (Marie Curie Fellowship, Twinning Program, etc.)

Jan. 2014 NSA Mathematical Sciences Grants Program

Nov. 2013 Reviewer for ICT Programme PLEXMATH

March 2013 NSA Mathematical Sciences Grants Program

continuous reviewer for several international scientific journals

## 8 Invited speaker at recent conferences

- Sept. 16 - 20, 2024 "Current Methods and Open Problems in Mathematical and Statistical Phylogenetics", ICERM, Brown University, Providence, RI, USA
- July 20 - 27, 2024 International Symposium on Combinatorial Optimization, 2024, Montrel, Canada
- Nov. 24 - 26, 2023 Workshop on Information Theory and Related Fields In Memory of Ning Cai, Bielefeld, Germany
- March 19 – 24, 2023 Dagstuhl Seminar 23121, Pattern Avoidance, Statistical Mechanics and Computational Complexity, Germany
- October 13-14, 2022 Middle-European Conference on Applied Theoretical Computer Science, MATCOS-22, Kopr, Slovenia
- July 11-15, 2022 29th British Combinatorial Conference, United Kingdom
- Nov. 4-9, 2018 Genomics, Pattern Avoidance, and Statistical Mechanics, Workshop 18451, Dagstuhl, Germany
- July 9-13, 2018 ICGT 2018, Lyon, France
- June 26-30, 2017 The Second Malta Conference in Graph Theory and Combinatorics, Malta
- Feb. 14-19, 2016 Pattern Avoidance and Genome Sorting, Workshop 16071, Dagstuhl, Germany
- Jan. 4, 2014 Workshop in Honour of Miklós Simonovits, Budapest
- May 15, 2013 Workshop for the General Assembly meeting Hungarian Academy of Sciences in Honour of Ervin Györi
- July 15-20, 2012 Structure Discovery in Biology: Motifs, Networks & Phylogenies, Workshop 12291, Dagstuhl, Germany
- May 14-18, 2012 Mathematical Physics of Complex Networks: from Graph Theory to Biological Physics (MAPCON12), Max Planck Institute for the Physics of Complex Systems in Dresden, Germany.
- Aug. 29-02, 2011 Eurocomb 2011 and Katona '70, Budapest, Hungary
- June 21-24, 2011 Alignment-free sequence comparison, Venice, Palazzo Cavalli-Franchetti, Italy.
- June 6-11, 2010 Structure Discovery in Biology: Motifs, Networks & Phylogenies, Workshop 10231, Dagstuhl, Germany
- July 27-31, 2009 XV. Midsummer Combinatorial Workshop, Prague, Czech Republic
- April 7-9, 2009 Pretty Structures, Existential Polytime and Polyhedral Combinatorics, Institute Henri Poincare, Paris, France
- May 12-15, 2008 ROGICS'08 Mahdia, Tunesia

- March 27-29, 2008 Molecular Informatics and Bioinformatics; International Symposium, Institute for Advanced Study, Collegium Budapest, Hungary
- Oct. - Nov. 2007 Phylogenetics, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom
- March 19-21, 2007 From Molecular Informatics To Bioinformatics International Symposium, Institute for Advanced Study Collegium Budapest, Hungary
- June 13-14, 2006 First conference of the Hungarian Bioinformatics Society, Budapest, Hungary
- May 2006 "Combinatorial and Algorithmic Foundations of Pattern and Association Discovery" - Schloss Dagstuhl, International Conference And Research Center For Computer Science, Germany
- May 2004 "Gathering on Phylogenetic Combinatorics" - The Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany
- Febr. 2002 "Paths, Permutations and Trees", Nankai University; invited speaker and Chairman of the Opening Session
- Nov. 2002 Opening conference of the research group "General Theory of Information Transfer and Combinatorics", Center for Interdisciplinary Research, Bielefeld, Germany
- Oct. 2002 Conference "Wissenschaftsdialog in Südosteuropa zum Thema Neue Technologien", A.v. Humboldt Foundation, Zagreb, Croatia

## 9 Recent Scientific Grants

- 2020-2023 National Research, Development and Innovation Office — NKFIH grant SSN 135643.
- 2019-2022 National Research, Development and Innovation Office — NKFIH grant K 116769.
- 2017-2019 National Research, Development and Innovation Office — NKFIH grant KH 126853.
- 2016-2019 National Research, Development and Innovation Office — NKFIH grant K 116769 and SNN 116095.
- 2012-2015 Grant #FA9550-12-1-0405 from the U.S. Air Force Office of Scientific Research (AFOSR) and the Defense Advanced Research Projects Agency (DARPA).
- 2009-2013 Hungarian National Scientific Fund (OTKA) No.: NK 78439
- 2007-2011 Hungarian National Scientific Fund (OTKA) No.: K 68262
- 2007-2010 Hungarian Bioinformatics MTKD-CT-2006-042794, Marie Curie Host Fellowships for Transfer of Knowledge
- 2006-2009 Hungarian National Scientific Fund (OTKA) No.: NK 62321

2005-2008 Hungarian National Scientific Fund (OTKA) No.: AT 048826

2003-2006 Hungarian National Scientific Fund (OTKA) No.: T 37846

2001-2004 Hungarian National Scientific Fund (OTKA) No.: T 34702

Oct.–Dec. 2002 A.v Humboldt fellowship, University of Bielefeld, Germany

Sept. 2001 NATO research fellowship, University of Cologne, Germany

Sept.–Oct. 2000 DAAD visiting professor scholarship, University of Cologne, Germany

## 10 Research Area

- Topics in Combinatorics:
  - Extremal problems for set systems and for partially ordered sets
  - Degree sequence problems in graph theory
  - Extremal graph theory
- Bioinformatics:
  - Phylogenetics
  - DNA String problems
  - Genom rearrangement
- Theoretical Computer Science
  - Constrain Satisfaction Problem
  - Complex networks
  - Sampling problems in Network theory

Papers in a separate list