



CURRICULUM VITAE  
of  
FARAGÓ ISTVÁN

**Place and date of birth:** Budapest, October 25, 1950.

**Address:** Klapka u. 5. II. 5. Budapest 1193, Hungary

**Mailing address:** Eötvös Loránd University, Department of Applied Analysis and  
Computational Mathematics ,  
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**Education:**

University: 1969-1974 Kiew State University, M.Sc. in Mathematics  
PhD studies: 1982-1985 Institute of Cybernetics of Kiew

**Scientific degrees:**

Ph.D.	Eötvös Loránd University	1977
candidate in mathematical science	Hungarian Academy of Sciences	1986
doctor habil	Eötvös Loránd University	2005
Doctor of Hungarian Academy of Sciences		2009

**Language skills:**

Russian	fluent
French	intermediate level
English	good
German	intermediate level.

**Places of work:**

1974-1981	MÜM Institute of Computer Sciences	mathematician
1981-1986	University of Gödöllő, Dept. of Mathematics	assistant professor
1986-1989	University of Gödöllő, Dept. of Mathematics	senior researcher
1989-1990	Eötvös Loránd Univ., Dept. of Appl. Anal.	assistant professor
1990-2010	Eötvös Loránd Univ., Dept. of Appl. Anal.	associate professor
2010--	Eötvös Loránd Univ., Institute of Mathematics	full professor
2012-	Hungarian Academy of Sciences	research professor

**Present positions:**

- Head of the Department of Applied Analysis and Computational Mathematics at Eötvös Loránd University (2006-)
- Vice Dean of Faculty of Sciences at Eötvös Loránd University (2012- )
- Head of the MTA-ELTE Academic Research Group “Numerical analysis and large networks”

## TEACHING ACTIVITY

**Teaching practice:**

- mathematical analysis (Eötvös Loránd University, M.Sc. courses, 1989- )
- partial differential equations (Eötvös Loránd University, M.Sc. courses, 1976-1992)
- theory of differential equations (Eötvös Loránd University, M.Sc. courses, 1996-1997)
- discretization and simulation of dynamical systems (Eötvös Loránd University, M.Sc. courses, 2000- )
- functional analysis and its applications in the numerical analysis (Eötvös Loránd University, M.Sc. courses, 2001-)
- the basics of functional analysis and its applications in the numerical analysis (Eötvös Loránd University, Ph.D. courses, 1997-1998)
- splitting methods and their applications in air pollution modeling (Eötvös Loránd University, Ph.D. courses, 2001)
- numerical methods for the solution of time-dependent problems (Eötvös Loránd University, Ph.D. courses, 2003-)
- application of numerical analysis in computational science (Eötvös Loránd University, Ph.D. courses, 2004-)
- finite element analysis and its applications (Technical University of Miskolc, 1991-1992)
- numerical methods for time-dependent problems (University of Jyväskylä, Ph.D. and M.Sc. course)
- splitting theory and its application (Technical University of Denmark, Informatics and Mathematical Modeling, M.Sc. course,)
- numerical modeling of physical processes (Technical University of Twente, The Netherlands)

## **Education of the new scientific generation:**

*Supervising in Ph.D.*

6 students with completed defense, 1 student in 2014, , 5 students in progress  
([http://www.doktori.hu/index.php?menuid=192&sz\\_ID=4064](http://www.doktori.hu/index.php?menuid=192&sz_ID=4064))

*Supervising Students' Scholarly Circle works (TDK)* 5 students with OTDK first place, 2 students with OTDK 2. place

## **SCIENTIFIC ACTIVITY**

### **Fields of scientific research:**

- numerical analysis of differential equations, mathematical modeling, numerical linear algebra, operator splitting, parallel algorithms

### **Honours and scholarships:**

- Farkas Gyula Prize (1977)
- Pro Scientia Honour (2003),
- Széchenyi István Scholarship (2001-2004),
- NATO ARW Director (2004),
- Pro Meteorologia (2011)

### **Memberships:**

Bolyai János Mathematical Society, SIAM, International Linear Algebraic Association  
Foundation member of the Doctoral School at Eötvös Loránd University

### **Some important scientific visits (2001-):**

University of Jyväskylä , Twente University, Danish National Environmental Research Institute, Institute of Parallel Algorithms of BAS, Sofia , University of Valladolid, University of Utrecht , Technical University of Denmark, Copenhagen , Institute of Cybernetics of the Ukrainian Academy of Sciences, Louisiana State University, Ottawa State University, University of Auckland, , Ottawa State University, University of Darmstadt, University of Innsbruck, Kyoto State University, Yakutsk State University.

### **Publications:**

5 monographs, editor of 12 books and special issues of journals, 1 part of a book, 6 lecture notes, 90 papers in scientific refereed journals, 47 papers in refereed proceedings published by outstanding publisher houses, 5 dissertations.

### **Number of independent citations:**

450 in 210 publications

**Editorial board:**

Member of Editorial Board in 5 International Journals

**Refereeing activity (2003- ):***Journals:*

Ecological Modelling, International Journal of Environment and Pollution, Applied Numerical Mathematics, Acta Mathematica, Annales Universitatis Scientiarum Budapest, Numerical Methods for Partial Differential Equations, Mathematical Notes, Journal of Computational and Applied Mathematics, Alkalmazott Matematikai Lapok, Studia Sci. Math. Hungarica, International Journal of Numerical Analysis and Modelling, International Journal of Computational Science and Engineering, Foundations of Computational Mathematics, Applied Mathematical Modelling, SIAM Scientific Computing, Applied Mathematics and Computation, Mathematical Problems in Engineering, Időjárás, Computers and Fluid, IMA Journal of Applied Mathematics, Computers and Mathematics with Applications, The Open Mathematics Journal, International Journal of Computer Mathematics, Discrete Dynamics in Nature and Society Zentralblatt, Mathematical Review (regular refereeing),

*Project Reviewers:*

Different international and Hungarian projects (NATO ARW, OTKA, Czech Science Foundation, OMAA, etc.)

**Projects (2001-):**

1. Nonlinear parabolic and hyperbolic partial differential equations in the natural sciences, Dutch–Hungarian (NWO-OTKA), 2001-2003 (NWO project number: 048.011.041).
2. Mathematical methods of preconditioning in nonlinear physical models, OTKA (T 043765), 2003-2006.
3. High performance solution methods for large scale nonlinear problems, joint academic research project, (Project number: HAS-BAS/4) 2004-2006.
4. Advances in air-pollution modelling for environmental security, NATO Advanced Research Workshop, 2004 (EST ARW 980503).
5. Impact of climate changes on pollution levels in Europe, NATO Collaborative Linkage Grant, (15.400 Euro, 2004-2005) (EST CLG 980505)
6. Methods and applications of large-scale scientific and data-intensive computing, joint academic research project, (Project number: HAS-UAS/2), 2004-2006.
7. Analysis und Numerik der Evolutionsgleichungen, DAAD- MÖB Hungarian-German Scientific Research Project, Project leaders: R. Nagel (Tübingen University, Tübingen), Faragó István (Eötvös Loránd University, Budapest), 2006-2007
8. NETWORK OF EXCELLENCE (ACCENT) for Atmospheric Composition Change in the framework of the specific European research and technological development programme “Integrating and Strengthening the European Research Area” under Priority 6 “Sustainable development, global change and ecosystems, Global change and ecosystems’ sub-priority”. (2006 September - 2009 February), Hungarian project leader: Faragó István
9. Numerical and computer methods for solving large-scale scientific problems, Joint Academic Research Project, Project leaders: A. Dorosenko (Institute Cybernetics, Kiev), I. Faragó (Eötvös Loránd University, Budapest) (Project number: HAS-UAS/1), 2007-2009

10. Numerical solution and qualitative analysis of nonlinear time-dependent problems, OTKA project (K 67819), 2007-2013.
11. Advanced methods for numerical solution for large scale nonlinear problems, Joint Academic Research Project, Project leaders: I. Dimov (Central Laboratory of Parallel Processing, BAS, Sofia), I. Faragó (Eötvös Loránd University, Budapest) (Project number: HAS-BAS/8), 2007-2009
12. RECOMEND-Fuel cells modeling and their application, Hungarian National Scientific Foundation, 2008-2011 Project leaders: Gyepes, T., Kriston, A., Inzelt, G., Farago, I. (1.510 000 Euro)
13. Large Systems and Their Analysis The European Union and the European Social Fund have provided financial support to the project under the grant agreement no. TÁMOP4.2.1./B-09/1/KMR-2010-0003., 2010-2012, (600 000 Euro)
14. MTA-ELTE Támogatott Kutatócsoport , 2012-2017 (25 M HUF/year) (leader)

**Memberships in conference committees, invited plenary talks (2002-):** 67 times