

# Scientific CV - Dr. Róbert Horváth

## Education

**1989-1994**, Eötvös Loránd University, Budapest, Hungary (MSc, Teacher of Mathematics, Physics, Descriptive geometry)

**1994-1997**, PhD School at Eötvös Loránd University, Budapest, Applied Mathematics. 2000, PhD dissertation is submitted with the title "Qualitative Properties of Numerical Solutions of the Heat Conduction Equation".

**2001**, PhD degree in Mathematics.

**2009**, habilitation, Eötvös Loránd University, Budapest, Hungary

## Work history

**1993-2002**, University of West Hungary, Institute of Mathematics, Faculty of Forestry, Sopron, Hungary,

**2000-2002**, University of Technology Eindhoven, Philips Research Laboratories Eindhoven, Eindhoven, The Netherlands,

**2002-2012**, University of West Hungary, Faculty of Economics, Sopron, Hungary.

**2008-**, Budapest University of Technology and Economics, Budapest, Faculty of Natural Sciences, Department of Analysis, Hungary.

**2012-**, MTA-ELTE Numerical Methods and Large Networks Research Group.

## Languages

Hungarian (native language), German, English, Dutch.

## Teaching experience

**1993-2012**, University of West Hungary (Sopron) -- Analysis, Linear Algebra, Operations Research, Numerical Mathematics, Mathematical Statistics, Probability Theory, Financial Option Valuation),

**1997**, Eötvös Loránd University (Budapest) – Analysis

**2004**, Eötvös Loránd University (Budapest) -- PhD course (Numerical Solution of Partial Differential Equations).

**2004**, Eötvös Loránd University (Budapest) -- Numerical modelling.

**2008-**, Budapest University of Technology and Economics (Budapest) -- Numerical Methods, Higher mathematics for students of informatics, Numerical computations (Matlab, Maple), analysis.

## My students and their prizes

**2005**, Csaba Péterfalvi (Eötvös Loránd University, physicist), lauded at OTDK.

**2006-**, Annamária Bischof (University of West-Hungary, PhD student).

**2010-2013**, Jean-Paul André (BME, PhD student).

## Scientific Publications

See [my publication page](#).

## Awards

**2004**, Gyula Farkas Award (from János Bolyai Mathematical Society)

**2007**, Outstanding teacher of the faculty, NYME KTK

**2007**, János Bolyai Research Fellowship (from Hungarian Academy of Sciences)

**2007**, Outstanding teacher of the faculty, BME TTK

### Projects

**2003-2007**, OTKA 43765, Mathematical methods of preconditioning in nonlinear physical models

**2006-2011**, OTKA 61800, Application of modern mathematical methods in geodesy

**2007-2013**, OTKA 67819, Numerical solutions of nonlinear time-dependent problems and their qualitative properties

**2009-2012**, Mathematical models of fuel cells, [First Hungarian fuel cell site](#)

**2012-**, MTA ELTE, [Numerical Mathematics and Large Networks Research Group](#).

OTKA 112157, Numerical solutions of partial differential equations and their qualitative properties

### Refereeing Work

Acta Geodaetica et Geophysica Hungarica

American Journal of Numerical Analysis

Applications of Mathematics

Applied Mathematical Modelling

Computers and Mathematics with Applications

International Journal of Computational Science and Engineering (IJCSE)

International Journal of Numerical Analysis and Modeling (IJNAM)

Journal of Computational and Applied Mathematics

Mathematical and Computer Modelling

### Membership of organizing / scientific committees

**1996**, László Rátz Assembly (for teachers of mathematics), Sopron, Hungary

**2002**, Finite-Difference Time-Domain Meeting, Philips Research Laboratories, Eindhoven, the Netherlands

**2015**, The Second Basque-Hungarian Workshop on Numerical Methods for PDEs, Basque Center for Applied Mathematics (BCAM), Bilbao, Spain, 12-13. January, 2015. ([Member of the scientific committee.](#))

### International Conferences and Visits

- SEFI Annual Conference - Visions and Strategies for Europe, Czech Republik (Prague, 1994)

- 6th International Conference on Numerical Methods, Hungary (Miskolc, 1994)

- School on Numerical Simulation of PDE's: Methods, algorithms, applications, Italy (Trieste, 1996)

- Second Joint Conference on Mathematics and Computer Science, Romania (Illyefalva, 1997)

- Conference on Numerical Methods and Computational Mechanics, Hungary (Miskolc, 1998)

- Conference in Honor of Robert J. Plemmons, USA (Winston-Salem, 1999)

- Third Joint Conference on Mathematics and Computer Science, Hungary (Visegrád, 1999)

- The Third European Conference on Mathematics and Advanced Applications, Finland (Jyväskylä, 1999)

- Conference on 3D Finite Element Methods, Finland (Jyväskylä, 2000)
- NUMDIFF-9, Germany (Halle an der Saale, 2000)
- IEEE Workshop on Signal Propagation on Interconnects, Italy (Venice-Cavallino, 2001)
- Scientific Computing in Electrical Engineering Conference, The Netherlands (Eindhoven, 2002)
- ENUMATH-2003, Czech Republic (Prague, 2003)
- NUMDIFF-10, Germany, (Halle an der Saale, 2003)
- ECMI conference, The Netherlands (Eindhoven, 2004)
- Large-Scale Scientific Computations, Bulgaria (Sozopol, 2005)
- Quantitative and Mathematical Finance Conference (Budapest, 2005)
- UKRPROG'2006, Ukraine (Kiev, 2006)
- 6th International Conference on Numerical Methods and Applications (NM&A'06), Bulgaria (Borovets, 2006)
- 4th Conference on Finite Difference Methods: Theory and Applications, Bulgaria (Lozenetz, 2006)
- NUMDIFF-11, Germany, (Halle an der Saale, 2006)
- Encounters between discrete and continuous mathematics, Germany (Blaubeuren, 2008)
- Conference on Numerical Analysis and Applications (NAA'08), Bulgaria (Lozenetz, 2008)
- NUMDIFF-12, Germany, (Halle an der Saale, 2009)
- 61st Annual Meeting of the International Society of Electrochemistry konferencia. A kiállított poszter címe "Parameter estimation in a PEMFC model", France (Nice, 2010).
- Innovative integrators Workshop, Austria (Innsbruck, 2010).
- Conference on Simulation and Optimization, Hungary (Győr, 2011).
- [Basque-Hungarian Workshop on Numerical Methods for Large Systems](#), Basque Center for Applied Mathematics (BCAM), Bilbao, Spain, April 2012.
- Encounters Between Discrete and Continuous Mathematics Workshop on Dynamical Networks, Numerical Analysis and Ergodic Theory, Budapest, ELTE, 21-24. May, 2013.
- The Third BCAM Workshop in Computational Mathematics, Basque Center for Applied Mathematics (BCAM), Bilbao, Spain, 17-18. July, 2014.
- The Second Basque-Hungarian Workshop on Numerical Methods for PDEs, Basque Center for Applied Mathematics (BCAM), Bilbao, Spain, 12-13. January, 2015. ([Member of the scientific committee.](#))