



## CURRICULUM VITAE

### Personal data :

- Gabriela Georgeta Marinoschi
- Date and place of birth: January 30, 1957, Bucharest, Romania
- Family status: married

### Actual positions :

- Senior researcher I, director of research, "Gheorghe Mihoc-Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy
- Scientific Secretary of the Section of Mathematical Sciences of the Romanian Academy

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### Education :

- University of Bucharest, diploma in Mathematics, 1979
- University of Bucharest, certificate of specialization in Fluid Mechanics, 1980
- University of Bucharest, Ph. D. in Mathematics, 1989
- Thesis: Contribution to the study of wave propagation in fluids, advisor: Prof. Lazar Dragos

### Background profile :

- Mathematics

### Field of specialization :

- Nonlinear PDEs, applied mathematics, fluid dynamics

**Fields of current interests : applied mathematics**

- Modeling, functional methods and optimal control applied to nonlinear problems arising in :
  - environmental flows (groundwater flows, infiltration, dispersion of pollutants)
  - biological flows (population dynamics problems, biophysics, medicine)
  - fluid dynamics and MHD flows
- Inverse problems
- Numerical analysis of the above nonlinear PDE's models

**Language proficiency :**

- English, Italian and French: very well
- German: fair

**Professional positions :**

- Mathematician, Institute of Meteorology and Hydrology, Bucharest, 1980-1985
- Scientific researcher, Institute of Meteorology and Hydrology, Bucharest, 1985-1990
- Senior researcher, Institute of Meteorology and Hydrology, Bucharest, 1990
- Scientific secretary, Romanian Academy, Section of Mathematical Sciences, December 1990 - present
- Senior researcher, “Gheorghe Mihoc-Caius Iacob” Institute of Statistical Mathematics and Applied Mathematics (former Institute of Applied Mathematics between 1991-2001), May 1991- present

**Teaching experience :**

- Assistant professor, University of Bucharest, 1981-1984
- Assistant professor, Polytechnic University of Bucharest, 1983-1984
- Professor, Central China Normal University: November-December 2003, May-June 2004
- **Ph.D. coordinator**, since 2004

**Results (see list of publications) :**

- 3 books
- Co-editor of 5 books
- about 60 papers published in peer reviewed journals
- about 30 technical reports and computer soft
- about 50 papers presented at national and international scientific meetings

**Visiting appointments abroad :**

- University of Athens, Greece, NATO research fellowship: April-June 1994
- Center of Atmosphere Physics and Climatology of the Academy of Athens, Greece: July 1996, August 1998, August 1999, September 2000
- Technical University of Athens: March 2000
- Forschungszentrum Jülich, Germany: September-October 1994, July 1995, May 1997, November 1999, October 2001
- Center of Optimal Control, and Discrete Mathematics, Central China Normal University, visiting professor: November-December 2003, May-June 2004
- University of Trento, Department of Mathematics: April 2003, October 2003, April 2004, October 2004, April 2005, November 2005, March-April 2006, March 2007, October 2007, May 2008; October 2008, October 2009
- University of Bologna: July 2005, September 2006, April 2008, April 2009, June 2009, October 2009

**Project coordinator :**➤ **International projects :**

- EC contract No. EV5VCT 920214, *Critical parameters governing the mobility and fate of pesticides in the soil/aquifer system*, with Forschungszentrum Jülich, 1994-1996
- Bilateral cooperation *Analytical and numerical modelling of complex pollutant transport phenomena in surface waters*, with the Technical University of Athens, 1998-2000

➤ **National projects :**

- RD- project of excellency, Contract CEEX-05-D11-25 / 2005-2007 (director of project)
- RD- project of excellency, Contract CEEX-05-D11-36 / 2005-2008 (partner-responsible of project)
- RD- project of excellency, Contract 2-CEX-06-D11-97/ 2006-2008 (partner-responsible of project)
- Advanced IDEAS Project, PN-IDEI ID\_70, 2008-2011 (director of project)

➤ **About 19 Grants financed by :**

- Romanian Academy: 1996, 1997, 2003-2004, 2005-2006
- Ministry of Research : 1998, 1998-1999, 1999-2001, 2001-2002
- Ministry of Education and Research (CNCSIS): 2002, 2004 - 2005

➤ **Research contracts :**

- Annual several contracts concerning research and operative hydrological prognosis within the Institute of Meteorology and Hydrology, between 1981-1990
- several contracts within IMA with the Institute of Meteorology and Hydrology, 1992-1994

**Participant in other projects :**

- **International projects :**
- MIUR-PRIN Italy, “Teoria Matematica delle Popolazioni: metodi, modelli, confronto con i dati”, led by Prof. M. Iannelli, (2007-2009)
- **National projects :**
- Advanced IDEAS Project, PN-IDEI ID\_404, 2007-2010 (member in the research team)

**Editorial activity :**

- Scientific secretary of the editorial board of the Romanian Academy journal Mathematical Reports, since 2000
- Reviewer for Mathematical Reviews
- Reviewer for Transport in Porous Media, NODEA, Abstract and Applied Analysis, Nonlinear Analysis and other international journals

**Organization of scientific meetings :**

- First Workshop on Mathematical Modelling of Environmental Problems, Bucharest, June 17-21, 2002 (main organizer)
- Vth Congress of Romanian Mathematicians (member of the organization committee), Pitesti, June 2003
- Second Workshop on Mathematical Modelling of Environmental and Life Problems, Bucharest, July 2003 (main organizer)
- Fourth Workshop on Mathematical Modelling of Environmental and Life Problems, Constanta, September 2005 (member of the organization committee)
- International workshop “Functional methods in biomathematics”, August 10-16, 2005 Galanesti, Romania (member of the organization committee)
- Franco-Roumaine Conference de Biomathématique, Craiova, July 2006 (member in the scientific board)
- 8-ième Colloque Franco-Roumain de Mathématiques Appliquées, Chambéry, 28 aug-1 sept. 2006 (co-organizer of the minisymposium Biomathématiques)
- Fifth Workshop on Mathematical Modelling of Environmental and Life Problems, Constanta, September 2006 (member of the organization committee)
- Sixth Workshop on Mathematical Modelling of Environmental and Life Problems, Constanta, September 2006 (member of the organization committee)
- 6th Congress of Romanian Mathematicians, Bucharest, June 28-July 4, 2007 (member of the organization committee)
- 9-ième Colloque Franco-Roumain de Mathématiques Appliquées, Brasov, August 28 – Sept. 2, 2008 (co-organizer of the minisymposium Nonlinear PDE in applied sciences)
- International workshop “Differential Equations and Applications in Life Sciences”, September 3-7 2008, Iasi
- Organization of about 30 meetings and conferences within the annual scientific programmes of the Section of Mathematical Sciences (between 1991-2006)

**Participation at international meetings :**➤ **Invited conference speaker:**

- 7-ème Colloque Franco-Roumain de Mathématiques Appliquées, Craiova, Romania, August 30- September 3, 2004
- 8<sup>th</sup> International Symposium on Automatic Control and Computer Science, Iasi, Romania, October 22 - 23, 2004
- International Conference Inverse Problems, June 19-24, 2005, Cortona, Italia
- International workshop “Functional methods in biomathematics”, August 10-16, 2005 Galanesti, Romania
- Conférence Francophone sur la Modélisation Mathématique en Biologie et en Médecine, Craiova, July 12-14, 2006 (**plenary conference**)
- 8-ième Colloque Franco-Roumain de Mathématiques Appliquées, Chambéry, August 28 – September 1, 2006
- International Conference on Applied Analysis and Differential Equations, ICAADE, Iasi September 4-9, 2006 (**plenary conference**)
- Conference Matematica Oggi per l’Uomo e l’Ambiente, Montecatini March 26-29, 2007
- Evolution Equations: Direct and Inverse Problems, University of Bologna, September 18-20
- Direct, Inverse and Control Problems, University of Roma, La Sapienza, June 23-28
- 6<sup>th</sup> Congress of Romanian Mathematicians, Bucharest, June 28-July 4, 2007 (**plenary conference**)
- Conference Mathematical Models for Complex Systems, Cortona, September 25-29, 2007
- 9-ième Colloque Franco-Roumain de Mathématiques Appliquées, Brasov, August 27 – September 2, 2008
- Exploratory Workshop "Differential Equations and Applications in Life Sciences", Iasi, September 3-7, 2008
- Direct, Inverse and Control Problems, Cortona, September 22-26 2008.
- Recent challenges in medical mathematics and cancerology : modeling and mathematical analysis", February 23-27, 2009, CIRM, Marseille, France
- The 5<sup>th</sup> International Conference "Dynamical Systems and Applications", Constanta, Romania, June 15-18, 2009 (**plenary conference**)
- EEMMAS Conference, Taranto, Italy, June 29- July 3, 2009

➤ **Talks:**

- 1<sup>st</sup> European Conference of Fluid Mechanics, Cambridge, UK, September 1991
- ECMI Workshop, Bucharest, July 1995
- ICIAM Congress, Hamburg, 1995
- 9<sup>th</sup> ECMI Congress, Lyngby, Denmark, July 1995
- The 29<sup>th</sup> ESGI (European Study Group in Industry) meeting, Oxford, UK, March 1996
- VII<sup>th</sup> Conference on Nonlinear Analysis, Numerical Analysis, Applied Mathematics and Informatics, Constanta, May 1999
- 1<sup>st</sup> Workshop on Mathematical Modelling of Environmental Problems, Bucharest, Romania, July 2003
- 2<sup>nd</sup> Workshop on Mathematical Modelling of Environmental and Life Science Problems, Bucharest, Romania, July 2003

- GAMM Conference, Abano Terme, Italy, March 24-28, 2003
- NPDE2003, Alushta, Ukraine, September 15-21, 2003
- Conference “New Trends in Continuum Mechanics”, Constanta, Romania, September 8-12, 2003
- 4<sup>th</sup> Workshop on Mathematical Modelling of Environmental and Life Science Problems, Constanta, Romania, September 2005
- 5<sup>th</sup> Workshop on Mathematical Modelling of Environmental and Life Science Problems, Constanta, Romania, September 2006

**Invited conferences abroad:**

- Forschungszentrum Jülich, Germany: September 1994, May 1997, October 2001
- University of Trento: April 2003, April 2005
- Institute of Mathematics of the Chinese Academy of Sciences, Wuhan, China: November 2003
- Center of Optimal Control, and Discrete Mathematics, Central China Normal University: June 2004
- Department of Mathematics, University of Bologna: September 2004, July 2005, April 2008

**Professional membership and offices held :**

- IFNA member since 2007
- GAMM member since 1991
- Secretary of the Romanian Section of GAMM since 2001
- National Romanian Committee of Mathematics, secretary since 1994

**Awards :**

- **Spiru Haret** Prize of the Romanian Academy in the domain of mathematical sciences, 1992
- **Cultural Distinction** of the Romanian Academy, 2002
- **Chevalier** of the “**Order of Merit**”, 2004 (presidential award)

*December 10, 2009*