

## CURRICULUM VITAE

**Surname:** MOROȘANU

**First name:** Costică

**Citizenship:** Romanian

**Family situation:** married, 2 children

**Educational background:** Graduate–University of Iași, Faculty of Mathematics,  
Section of Computer Science, in 1980.

**Scientific degree:** Ph.D. in Mathematics from the University of Iași in 1998 with the thesis:

"Analysis and control of phase field transitions system",  
supervised by Acad. Viorel BARBU.

**Professional Activity:**

- Computer Programmer at the Computer Centre – Suceava (1980 - 1986),
- Computer Programmer at the Computer Centre – Iași (1986 - 1991),
- Researcher at the Faculty of Mathematics of the University of Iași (1991-1997),
- Lecturer (-Professor) at the Faculty of Mathematics of the University of Iași (1997-2005),
- Associate Professor at the Faculty of Mathematics of the University of Iași (2005-present).

**Knowledges in computer science:**

- Operating Systems:* DOS (MS-DOS), Windows (3.x, 95, 98, 2000, XP), Unix, **Linux** (Red Hat Linux, Mandrake, Ubuntu, etc),
- Programming languages:* TASM, Fortran, C, C++; *AI oriented:* LISP; *Web:* HTML, PHP; *Software products:* Excel, VFP (Vizual Fox Pro), MySQL, Matematica, MAPLE, MATLAB, Octave, FreeFem++.
- computer typesetting:* T<sub>E</sub>X, plainT<sub>E</sub>X, L<sub>A</sub>T<sub>E</sub>X, AMST<sub>E</sub>X.

**Fields of scientific interest:**

- partial differential equations (existence, uniqueness, regularity, approximation),
- numerical methods (theory and applications) for: approximation, optimal control problems governed by partial differential equations, free boundary problems,
- computer science,

d. applied and industrial mathematics.

**Didactic activity:**

- member of the licence committees: June 2006
- member of the dissertation committees: June 2011
- member of the tenure in the secondary school: July 17-18 2006
- chairman of the baccalaureate committees:
  - School group "Henri Coanda", Bacău, 2003
  - Pedagogical High School "Nicolae Iorga", Botoşani, 2004
  - School group "Anghel Saligny", Braila, 2007
  - High School "C.N. Ferdinand I", Bacău, 2010
  - High School "G. Vrânceanu", Bacău, 2013
- member of the doctoral committee:
  - SURU Marius Gabriel, "Gheorghe Asachi" University, Doctoral School of the Faculty of Science and Materials Engineering, Iaşi, Romania, supervised by Professor BUJOREANU Leandru-Gheorghe, 2014
  - WEHBE Charbel, LMA, Poitiers University, France, supervised by Professor MIRANVILLE Alain, 2014

**Scientific guidance of students and teachers from secondary and high school:**

a. coordinated (and completed) works license;

**2000** Popa Cristina (MA-Applied Mathematics), Simion Simona (MA)

**2002** Amariuca Gabriel (MI-Mathematics and Computer Science), Placinta Adina (MI), Tarpescu Marian (MI), Hutanu Dragos (MA), Spulber Doru (MA)

**2003** Apoputoaiei Marius (MI), Patras Ovidiu (MI), Darie Simona (MI), Bindiliu Mihaela (MI), Coman Nicoleta (MA)

**2004** Lacatusu Dumitrita (MI), Iftemie Catalin (MI), Potoroc Petronela (MI), Grecu Roxana (MI), Sandu Gabriel (MI), Hahui Cerasela (MI)

**2005** Onu Andreea (MI), Grigorut Anca (MI), Totolea Mircea (MI), Toma Cristian (MI), Grigore Ionut (MI), Lupu Ion (MI), Paval Vasile (MA), Scantei Laurentiu (MA)

**2006** Bordianu Oana-Teodora (MI), Catana Laura (MI), Rusu Amalia (MI), Popalapte Catalin (MA)

**2007** Andrei Magda (MI), Filip Otilia (MI), Gaspar Oana (MI), Grigorita Marius (MI), Iordache Silviu (MI), Mocanu Damiel (MI), Stan Costel (MI), Vacariu Ciprian (MI), Gucianu Ciprian (MA), Scripcariu Catalin (MA)

**2008 February:** Craciunescu Lucian (MA), Gagea Ana Maria (MI), Soare Cristina (MI), Stan Simona (MI),

Vatamanu Ovidiu (MI); **June:** 3 years Bologna: Mandiuc Luiza (MI), Norses Razvan (MI), Omusoru Eduard (MI), Palote Costel (MI); 4 years: Iordache Andra Alexandra (MI), Olenici Ana Maria (MI), Popescu Andrei (MI), Sasu Oana (MI); lingers: Gavril Otilia (MI), Silimon Carmen (MI)

**2009 February:** Loghin Mihai (MI), Asavoai Andrei (MI), Steclaru Andreia (MI); **June:** Bouaru Daniel (MI), Jitarasu Lucian (MI), Mantale C.tin. (MI), Miron Niculina. (MI), Mocanu Anca (MI)

**2010 February:** Ciobanu Cristi (MI), Hriscu Vasile (MI); **June:** Pitic Maria(MI), Florea Alexandru(MI), Vadim Gheorghita(MI), Munteanu Lucian(MI)

**2011** Butucel Andreea (MI), Florea Alexandra (MI), Iosip Marian (MI)

**2014** Mihăluț Andreea (MI)

**2015** Ababei Andreea Loredana (MI), Constantin Cornelia Elena (MI)

**b.** coordinated (and completed) works dissertation:

**2004** Shadait Abudurousu, China

**2006** Motrescu Alexandru Mircea (CSIP- Scientific Computing and Software Engineering)

**2011** Ghet Mihaela (CSIP), Mocanu Daniel (CSIP), Moisuc Laura (CSIP), Iordache Andra (CSIP), Vornicu Oana (CSIP)

**2013** Alixandroaie T. Carmen (MF-Financial Mathematics), Ciobanu N. George-Cristian (CSIP), Ciomaga C. Irina Elena (CSIP), Meer F. Liviu Marius (CSIP), Norses I. Paul Razvan (CSIP)

**2014** Dascălu Andrei iulian (CSIP)

**2015** Ailenei Ramona (MF), Hancu Andrei (MF), Scorțanu Dumitru Ramon (CSIP)

**c.** coordinated (and completed) works in the first degree:

PLATEC Cezar Nicolae – School with classes I-VIII, Grămești, Suceava, 2008

GHEORGHITA V. Lidia – Beirut International School, București, 2009

PASCU Andrei – School with classes I-VIII, Ivești, Vaslui, 2009

VIZITIU Marius – School with classes I-VIII, Bălușeni, Botoșani, 2010

PUȘCAȘU Ion – School with classes I-VIII, Boureni-Moțca, Iași, 2011

ANDRONIC Gheorghe Nelu – School with classes I-VIII, Cacica, Suceava, 2012

CĂȘUNEANU Maria – School group ”Ion Holban”, Iasi, 2012

DONCILĂ Simona Maria - High School ”Demostene Botez”, Trușești, jud. Botoșani, 2013

### **Scientific activity:**

#### **I. Industrial and scientific contracts:**

- developed over 11 contracts in industry,
- participated to the achievement of over 12 scientific research contracts, of which mention:

- i. major research project no. 129/1998-2002, financed by World Bank, *Analysis and controls of semilinear differential systems*, coordinator - prof.dr. Viorel BARBU;
- ii. research project CEx05-D11-84/28.X.2005, *Researchs regard the evolution of solidification front via phase-field transition system. Improvement the processes of continuous casting of steel*, coordinator - assoc.prof. dr. Costica MOROȘANU;
- iii. research project no. 81-024/18.IX.2007, *Development, implementation and experimental validation, on an original functional model of the combustion chamber, of a numerical algorithm to simulate complex reactive turbulent Flow - LEMLES*, coordinator: 2009-2010 - assoc.prof. dr. Costica MOROȘANU.

## II. Conferences and workshops participation:

- Bucharest, Romania, september 14-16/1995, "Applied Mathematics and Industrial Problems";
- Constanta, Romania, august 1998, 2000, "Analysis and Control of Differential Systems";
- Cluj-Napoca, Romania, september 1988, octomber 1999, "Fixed Point Theory and Applications";
- Plovdiv, Bulgaria, august 1999, "Tenth International Colloquium on Differential Equations";
- Iasi, Romania, may 14-16/1999, 2000, 2001: Workshop "Partial differential equations and optimal control";
- Chisinau, R.P. Moldova, august 16-18/2001, "First Conference of the Mathematical Society of Moldova";
- Athens, Ohio, SUA, november 2001, 2002;
- Galanesti, Romania, august 10-16/2005, "International Workshop. Functional Methods in Biomathematics";
- Iasi, Romania, november 09-12/2006, 2nd International Conference on " Biomaterials & Medical Devices", BiomMedD'2006,
- Bratislava, Slovakia, february 06-09/2007, 6-th International Conference APLIMAT 2007
- Mioveni, Romania, october 12-14/2007, XV-th Conference on Applied and Industrial Mathematics, CAIM2007,
- Iasi, Romania, november 16-17/2007, 9-th International Symposium on Automatic Control and Computer Science, Workshop on Control Theory,
- Riccione, Italy, june 3-6/2008, 6th European Conference of Continuous Casting 2008,
- Aachen, Germany, september 22-26/2008, International Conference on Aluminium Alloys -Simulation and modelling
- Oradea, Romania, october 09-11/2008, XVI-th Conference on Applied and Industrial Mathematics, CAIM2008,
- Constanta, Romania, september 17-21/2009, XVII-th Conference on Applied and Industrial Mathematics, CAIM2009,

- Iasi, Romania, october 14-17/2010, XVIII-th Conference on Applied and Industrial Mathematics, CAIM2010, *co-organizer*: <http://www.math.uaic.ro/caim2010/co.php>,
- Vancouver, Canada, July 18-22/2011, VII-th International Congress on Industrial and Applied Mathematics, ICIAM2011,
- Iasi, Romania, September 22-25/2011, XVIII-th Conference on Applied and Industrial Mathematics, CAIM2011, *co-organizer*:
- Iasi, Romania, June 2014, RoAIMS2014,
- Madrid, Spanish, July 7-11, 2014, The 10th AIMS Conference on DSDEA
- Bacau, Romania, September 18-21, 2014, The 22nd Conference on Applied and Industrial Mathematics, CAIM2014

### III. Visiting professor:

- Normala Huazhong University, Wuhan, China (march-may, 2001); the course taught to the Ph.Ds students: *Control and numerical analysis on the phase-field system*,
- Ohio University, Athens, Ohio, S.U.A (september-november, 2001, 2002); here I have taught undergraduate and graduate courses on *calculus* and *ordinary and partial differential equations*.

### IV. coordinated research work:

- Ph.D. - Tomasso Benincasa (2008, 2009), University of Bologna, Italy, <http://core.ac.uk/download/pdf/11012938.pdf>
- Postdoctoral fellowship - Dr. Armel ANDAMI OVONO, Universit des Sciences et Techniques de Masuku (Gabon), the scholarship program "Eugen Ionescu" 2012/2013.

### V. Organized national and international scientific meetings:

- a. workshop: "Technologies for continuous casting of steel. New mathematical methods for improving the quality and increasing the reliability of mechanical components", September 21-23, 2006, Iasi, Romania
- b. workshop: "Improving the process of continuous casting of steel by promoting and implementing methods based on the phase-field transition model", June, 8-9, Galați, Romania
- c. THE 18th CONFERENCE ON APPLIED AND INDUSTRIAL MATHEMATICS, October 14-17, 2010, Iasi, Romania; <http://www.math.uaic.ro/~caim2010>
- d. THE 19th CONFERENCE ON APPLIED AND INDUSTRIAL MATHEMATICS, September 22-25, 2011, Iasi, Romania; <http://www.univagro-iasi.ro/caim2011>

### VI. Reviewer of some journals of mathematics, applied mathematics, interdisciplinary:

- a. Applied Mathematics and Computation, ISSN: 0096-3003, Elsevier;
- b. Journal of Materials Processing Technology, ISSN: 0924-0136, Elsevier;

- c. Applied Mathematics and Optimization, ISSN: 0095-4616, Springer;
- d. Boundary Value Problems, ISSN: 1687-2770, Springer;
- e. Journal of Global Optimization, ISSN: 0925-5001, Springer;
- f. Nonlinear Differential Equations and Applications NoDea, ISSN: 1021-9722, Springer;
- g. Numerical Functional Analysis and Optimization, ISSN: 0163-0563, Taylor & Francis;
- h. Mathematical Modelling of Natural Phenomena, ISSN: 0973-5348, edp sciences;
- i. Electronic Journal of Differential Equations, ISSN: 1072-6691, Department of Mathematics Texas State University-San Marcos, SUA
- j. ROMAI JOURNAL, Romanian Society of Applied and Industrial Mathematics  
(ROMAI - <http://www.romai.ro>)

October, 2015