Curriculum Vitae

GENERAL DATA:

First Name and Last Name: Dragoș - Pătru COVEI

Date and Place of birth: December 08, 1977, Bumbesti-Jiu (Romania)

PROFESSIONAL ADDRESS:

Department of Applied Mathematics,

The Bucharest University of Economic Studies,

Piata Romana, 1st District, Postal Code: 010374, Postal Office: 22, Romania

PROFESSIONAL DEGREES:

PhD in Mathematics with distinction: West University of Timișoara, November, 2009

Degree in Mathematics (B.A.): University of Craiova, June 2001

Post graduate certificate in Algebra and Geometry (M.Sc.): University of Craiova, June 2002

Specialization diploma in Informatics (M.Sc.): West University of Timisoara, March 2007

Professional conversion diploma at post-academic level in Information and Communication Technology (M.Sc.): Constantin Brancusi University of Tg-Jiu, February 2007

PRESENT POSITION:

Full Professor: The Bucharest University of Economic Studies, 2016-Present

PREVIOUS POSITIONS:

Associate Professor: The Bucharest University of Economic Studies, 2013-2016

Assistant Professor: Constantin Brancusi University of Tg-Jiu, 2004-2013

Research Fellow: West University of Timisoara, Department of Mathematics, 2009-2011

Junior Assistant Professor: Constantin Brancusi University of Tg-Jiu, 2002-2004

Professor: Alexandru Stefulescu and Constantin Brancusi middle school (Tg-Jiu), 2001-2002

SCIENTIFIC INTERESTS:

Nonlinear elliptic partial differential equations and systems; Stochastic Processes

GRANTS:

Grants at international competition, by the organizer universities for carrying out research stages on professional development:

Discontinuous change in behaviour issues in partial differential equations, Euroconference in Crete, Academic Village of Anogia, Anogia, Crete, June 10-16, 2006

Summer School: PDE from Geometry, University of Cologne, Germany, July 21--25, 2008

Summer School: Fifth Summer School in Analysis and Applied Mathematics, Universita' di Roma "La Sapienza", Piazzale Aldo Moro, Roma, Rome June 1-5, 2009

International Conference on Advances in Optimization and Related Topics, Centre de Recerca Matematica, Bellaterra, Barcellona, 29 November-3 December 2010

Grants at national competition as a member:

Generalized groupoid morphisms grant CEEX. Grant from the Romanian Ministry of Education and Research, cod ET 65/2005, contract no. 2987/11.10.2005

Promoting of scientific research on the theme: Operator Models and Applications. Grant CEEX-Modulul III -contract 69/2006

Advanced Research Studies on the Asymptotic Behavior of Evolution Equations. Grant PN II ID 1080, (2009-2011)

Responsible of the following mobility grants:

Mobility grant of the Romanian Ministry of Research and Innovation, CNCS-UEFISCDI, project number PN-III-P1-1.1MC-2017-0016 within PNCDI-III.

Mobility grant of the Romanian Ministry of Research and Innovation, CNCS-UEFISCDI, project number PN-III-P1-1.1-MC2019-0168 within PNCDI-III.

Mobility grant of the Romanian Ministry of Research and Innovation, CNCS-UEFISCDI, project number PN-III-P1-1.1-MCD-2019-0151, within PNCDI-III.

ORGANIZATION OF MEETINGS:

Chair to a section of the *GENERAL SESSION at ICNPAA 2012 Congress*, Vienna University of Technology, Vienna, Austria, July 10, 2012 – July 14, 2012

Co-organizer to the session *Contributions of PhD students (and post-doctoral researchers)* from the 8th International Conference on *Mathematical Problems in Engineering, Aerospace and Sciences,* National Institute for Space Research, Sao Jose dos Campos (SP), Brazil, during June 30 - July 3, 2010

Co-organizer to the workshop *Operator Models and Applications-OMA 2006*, Timişoara 29 June - July 4, 2006

EDITORIAL ACTIVITY:

Member of the editorial board for two journals:

Surveys in Mathematics and its Applications

British Journal of Mathematics & Computer Science

Guest editor for the ISI journal Abstract and Applied Analysis in the years 2013 and 2014

PRIZES AND AWARDS:

19 papers awarded by **National Research Council**

Award for excellence in scientific research accorded by the Constantin Brâncuşi University of Târgu-Jiu: Excellence Diploma Best Young Researcher of 2011

PUBLISHING PAPERS IN ISI-IDEXED JOURNALS: 47 publications selected from Web of Science Core Collection

TIMES CITED: 235 Times Cited Without self-citations.
H-INDEX: 8
BOOKS PUBLISHED (ISBN): 4
PROFESSIONAL MEMBERSHIPS:
SPSR: https://spsr.ase.ro/lista-membrilor/
IFNA - The International Federation of Nonlinear Analysts: **https://www.ifnaworld.org/**
THE PROFILE ADDRESS:
WEBPAGE LINKS: https://covei.weebly.com/education.html
ORCID: https://orcid.org/0000-0001-7042-9089
Google Scholar: https://scholar.google.com/citations?user=fW3OF2UAAAAJ&hl=ro

CONTRIBUTIONS:

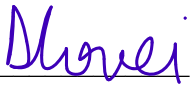
The broad field of Nonlinear Partial Differential Equations which is related to problems motivated by financial mathematics, physics, geometry among other fields has been my research area since my undergraduate years.

Already, for my master thesis in 2002, I studied some difficult problems in geometry. The interaction between geometry and PDE was very fruitful for my research, since I managed to apply PDE techniques to problems in geometry.

In 2009, I completed my PhD thesis at West University of Timisoara under supervision of Prof. Mihail Megan. The results of my PhD thesis were acknowledged with a distinction granted by the public support commission members as well as C.N.A.T.D.C.U. My PhD thesis added contributions to the broad subject of Nonlinear Partial Differential Equations, with specific interest to elliptic equations and related problems. Up to the present date I have published over 47 papers (some in the top journals in the field of Mathematics with high impact factor).

In the last years of my research activity, due to the profile of my university and my vision about real world problems, I studied stochastic production planning problems with regime switching corresponding to different economic cycles in a random environment. In our model, a factory is planning its production of several economic goods as to minimize its inter temporal production and inventory costs. A constant discount rate was used to measure on the same time scale costs which occur at different times. The stochasticity is driven by a N-dimensional Brownian motion and a Markov chain. The Markov chain models the different economic regimes while the multidimensional Brownian motion captures the random nature of good's demand; the demand is also linked to economic cycles and this makes it dependent on the Markov chain as well. The constant discount rate may also depend on the Markov chain as well. We have tackled the production planning problems by the value function approach. Using probabilistic techniques we

derived the Hamilton Jacobi Bellman (HJB) equation and system of the value function. We have emplyed partial differential equations and systems tools/techniques to analyze the HJB system of equations. In the end we have proved a verification result, i.e., we have shown that the HJB equation and system yields the optimal production. Our theoretical results have been published in international specialized journals acknowledged by the scientific community.

SIGNATURE: 

DATE: October 10, 2025