

CURRICULUM VITAE

Forename: Mihai
Surname: Bucataru
Date of birth: 19 November 1995
Place of birth: Iași, Romania
Permanent address: 12 Vitejilor, Bloc B8, Et. 2, Ap. 7, 700407 Iași, Romania
Telephone: +40-(0)730-686544
Nationality: Romanian
E-mails: bucatarumihai95@gmail.com, mihai.bucataru@fmi.unibuc.ro

EDUCATION

2014-2017: Diploma (BSc) in Applied Mathematics,
University of Bucharest, Faculty of Mathematics and Computer Science, Bucharest,
Romania
2017-2019: MSc in Applied Mathematics: “Probability and Statistics”,
University of Bucharest, Faculty of Mathematics and Computer Science, Bucharest,
Romania
2019-2023: PhD in Mathematics: “Inverse Problems in Anisotropic Heat Conduction”,
Supervisor: Professor Liviu Marin,
University of Bucharest, Faculty of Mathematics and Computer Science, Bucharest,
Romania

EMPLOYMENT HISTORY

2017-2019: Research Assistant
University of Bucharest, Faculty of Mathematics and Computer Science, Research
Institute of the University of Bucharest (ICUB), 36-46 Bd. M. Kogălniceanu,
050107 Bucharest, Romania
2017-2019: Research Assistant
“Simion Stoilow” Institute of Mathematics of the Romanian Academy (IMAR), 21
Calea Griviței, 010702 Bucharest, Romania
2020-2022: Research Assistant
University “Alexandru Ioan Cuza” Iasi (UAIC), 11 Bd. Carol I, 700506 Iasi,
Romania
2020-present: Research Assistant
“Gheorghe Mihoc – Caius Iacob” Institute of Mathematical Statistics and Applied
Mathematics of the Romanian Academy (ISMMA), 13 Calea 13 Septembrie,
050711 Bucharest, Romania

RESEARCH INTERESTS

Inverse problems; numerical methods for ODEs and PDEs, e.g. finite-difference method (FDM),
finite element method (FEM).

TEACHING EXPERIENCE

BSc Tutorials and Practical in Scientific Computing, Numerical Analysis and Probabilities
University of Bucharest, Faculty of Mathematics and Computer Science, Romania, 2018-present.

GRANTS AND SCHOLARSHIPS RECEIVED

1. March 2016 – August 2016: Erasmus+ Scholarship at the Catholic University of Eichstätt-Ingolstadt, Germany.
2. April 2017: DAAD (German Office for Academic Exchange) Study Scholarship for Graduates of All Disciplines, 2017/18 (*declined*)
3. October 2014 – 2019: Merit Scholarship from the Faculty of Mathematics and Computer Science, University of Bucharest.
4. September 2019 – August 2020: „Traian Lalescu” Scholarship from the Faculty of Mathematics and Computer Science, University of Bucharest.
5. October 2019 – September 2022: PhD Scholarship from the Faculty of Mathematics and Computer Science, University of Bucharest.
6. June 2022: Participation scholarship at 8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS), Oslo, Norway.

RESEARCH PROJECTS

1. *Ministry of Research and Innovation, CNCS-UEFISCDI, PN-III-P4-ID-PCE-2016-0083, Contact no. 106/12.06.2017: Computational Methods for Some Inverse Problems in Solid Mechanics, 2017-2019. Principal Investigator: Professor Liviu Marin. **Investigator.***
2. *Ministry of Research and Innovation, CNCS-UEFISCDI, PN-III-P4-ID-PCE-2016-0372: Stochastic Analysis and Nonlinear Equations for Fragmentation Processes, 2017-2019. Principal Investigator: Professor Lucian Beznea. **Investigator.***
3. *Ministry of Research and Innovation, CNCS-UEFISCDI, PN-III-P1-1.1-TE-2019-0348: Calculus of variations and numerical techniques in solid mechanics, 2020-2022. Principal Investigator: Professor Dumitrel Ghiba. **Investigator.***

RESEARCH VISITS

1. University of Leeds, Department of Applied Mathematics, 29 October – 12 November 2017, invited by Professor Daniel Lesnic.

PUBLICATIONS

1. M. Bucataru, Iulian Cîmpean, Liviu Marin, A gradient-based regularization algorithm for the Cauchy problem in steady-state anisotropic heat conduction, *Computers & Mathematics with Applications*, **119** 220-240, 2022.
2. M. Bucataru, Liviu Marin, FDM-based alternating iterative algorithms for inverse BVPs in 2D steady-state anisotropic heat conduction with heat sources, *Applied Mathematics and Computation*, submitted.
3. M. Bucataru, Iulian Cîmpean, Liviu Marin, Stable reconstruction of discontinuous solutions to the Cauchy problem in steady-state anisotropic heat conduction with non-smooth coefficients, *ESAIM: Mathematical Modelling and Numerical Analysis*, submitted.
4. M. Bucataru, Liviu Marin, Accelerated iterative algorithms for the Cauchy problem in steady-state anisotropic heat conduction, *Numerical Algorithms*, submitted.

CONFERENCES AND SUMMER SCHOOLS ATTENDED:

1. *4th Regional Romanian-French Summer School*, Sinaia, Romania, 3–16 July 2017.
2. *Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society*, Constanta, Romania, 15–19 September 2017.
3. *5th Regional Romanian-French Summer School*, Sinaia, Romania, 1–11 July 2018.
4. *1st Workshop on Inverse Problems (IP2018)*, Ghent, Belgium, 17-19 September 2018.
5. *6th Regional Romanian-French Summer School*, Sinaia, Romania, 1–11 July 2019.
6. *10th Workshop for Young Researchers in Mathematics (online)*, 20-21 May 2021.
7. *Conference of doctoral schools, Universitaria Consortium (online)*, 22-24 September 2020.

8. *8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS)*, Oslo, Norway, 5-9 June 2022.
9. *6th Regional Romanian-French Summer School*, Sinaia, Romania, 6–14 July 2022.

TALKS AT CONFERENCES/WORKSHOPS

1. *FDM for Inverse Problems Associated with the Diffusion-Transport Equation in Various 2D Domains*, 1st Workshop on Inverse Problems, Ghent, Belgium, 18 September 2018.
2. *An Iterative Algorithm for the Cauchy Problem in Steady-State Anisotropic Heat Conduction*, Conference of doctoral schools, Universitaria Consortium (online), 2 October 2020.
3. *A GDM-based regularization algorithm for Cauchy inverse problems in anisotropic heat conduction*, Worskhop for Young Researchers in Mathematics (online), 1 May 2021.
4. *A GDM-based regularization algorithm for Cauchy inverse problems in anisotropic heat conduction*, Scientific communications session for students (online), 8 May 2021.
5. *Stable numerical reconstruction of non-smooth boundary data in steady-state anisotropic heat conduction*, Scientific communications session for students, Bucharest, Romania, 27 May 2022.
6. *Stable numerical reconstruction of non-smooth boundary data in steady-state anisotropic heat conduction*, 8th European Congress on Computational Methods in Applied Sciences and Engineering, Oslo, Norway, 5-9 June 2022.

Mihai Bucataru



Date,

12 December 2022