

CURRICULUM VITÆ

Personal Data

First/Last Name: **Andreea GRECU**
Sex: Female
Date of birth: October 3rd, 1992
Place of birth: Sfantu Gheorghe, Covasna, Romania
Current town: Bucharest, Romania
Nationality: Romanian
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Education

Oct. 2016-present: **Ph.D. Studies in Mathematics, University of Bucharest**, under the joint supervision of Prof. Dr. Liviu Marin (University of Bucharest) and Senior Researcher I Dr. Liviu Ioan Ignat (SCOSAAR, Romanian Academy) - with thesis "Quantitative and qualitative properties in the study of evolution equations"
2014-2016: **M.S. in Mathematics, University of Bucharest**, Faculty of Mathematics and Computer Science, with specialization in Analysis, Mathematical Modeling and Financial Mathematics, Supervisor Senior Researcher I Dr. Liviu Ioan Ignat - Master Degree (10)
2014-2015: Psihopedagogical Studies, University of Bucharest, Faculty of Psychology and Educational Sciences - Level I
2011-2014: **B.S. in Mathematics, University of Bucharest**, Faculty of Mathematics and Computer Science, with specialization in Applied Mathematics - Bachelor's Degree (9.54)

Experience

Research activity

Oct. 2016-Sept. 2017: Research Assistant, "Simion Stoilow" Institute of Mathematics of The Romanian Academy, Bucharest, Grant PN-II-RU-TE-2014-4-0007 (P.I. Dr. Liviu Ignat), Financed by CNCS-UEFISCDI, ANCS
Sept. 2014-Sept. 2016: "Simion Stoilow" Institute of Mathematics of The Romanian Academy, Bucharest, Research Project Team Member, Grant PN-II-ID-PCE-2011-3-0075 (P.I. Dr. Liviu Ignat), Financed by CNCS-UEFISCDI, ANCS

Teaching activity

Feb. 2017 - present: Research Assistant, University of Bucharest, Faculty of Mathematics and Computer Science, Teaching activity in hourly payment regime: Laboratories of
Feb. 2021 - present: Elements of Scientific Computing (L1)
Mathematical Modeling in Material Science (L2)
Oct. 2020 - Jan. 2021: Numerical Analysis (L3)
Oct. 2019 - Jan. 2020: Numerical Analysis and Numerical Methods (L3)
Numerical Calculus (L3)
Oct. 2018 - Jan. 2019: Numerical Analysis and Numerical Methods (L3)

Feb. -June 2018: General Mechanics (L2)
Oct. 2017-Jan. 2018: Numerical Analysis and Numerical Methods (L3)
Feb. - June 2017: Numerical Calculus (L1)

Research Interests

Evolution equations, Schrödinger equation, Quantum Graphs, Spectral theory for unbounded self-adjoint operators, Dispersive estimates

Researcher ID: <http://www.researcherid.com/rid/X-2134-2018>

ORCID ID: <http://orcid.org/0000-0001-5829-7765>

Google Scholar: <https://scholar.google.ro/citations?user=TCLwMogAAAAJ&hl=ro&oi=ao>

ResearchGate: https://www.researchgate.net/profile/Andreea_Grecu2

Publications

[3] with A.F. Bertolin

and L.I. Ignat: “Hardy uncertainty principle for the linear Schrodinger equation on regular quantum trees” - submitted for publication (2020) 30 pages (arXiv version: <https://arxiv.org/pdf/2005.06204.pdf>)

[2] with I. Cimpean: “The nonlinear Schrodinger equation with white noise dispersion on quantum graphs” - published in *Comm. Math. Sci.* **19 (2)** (2021) pages 405-435
<https://dx.doi.org/10.4310/CMS.2021.v19.n2.a5>, (arXiv version: <https://arxiv.org/pdf/1905.11708.pdf>)

[1] with L.I. Ignat: “The Schrodinger equation on a star-shaped graph under general coupling conditions” published in *J. Phys. A: Math. Theor.* **52 (3)** (2019) 035202, 26 pages
<https://doi.org/10.1088/1751-8121/aaf3fc>, (arXiv version: <https://arxiv.org/pdf/1711.10235v3.pdf>)

Scholarships and Awards

Jul.-Oct. 2020: BITDEFENDER Junior Research Fellowship ("Simion Stoilow" Institute of Mathematics of the Romanian Academy)

2019: Research Award, Competition 2019, PN-III-P1-1.1-PRECISI-2019-34725, Prize by CNCS-UEFISCDI, ANCS

Nov.-Dec. 2019: BITDEFENDER Junior Research Fellowship ("Simion Stoilow" Institute of Mathematics of the Romanian Academy)

Oct.-Dec. 2018: BITDEFENDER Junior Research Fellowship ("Simion Stoilow" Institute of Mathematics of the Romanian Academy)

Oct.-Dec. 2017: BITDEFENDER Junior Research Fellowship ("Simion Stoilow" Institute of Mathematics of the Romanian Academy)

Oct.2016-Sept.2019: Ph.D Scholarship, Centre Francophone en Mathématique, Agence Universitaire de la Francophonie, Bucharest, Romania (10 months/year)

Oct.2016-Sept.2019: Ph.D Scholarship, University of Bucharest, Bucharest, Romania (5 months)

2014-2015: Anghelescu Scholarship (University of Bucharest)

Scientific events

With talks and posters

- 2018 Inverse and Spectral Problems for (Non)-Local Operators, September 10-14, Max-Planck Institute for Mathematics in the Sciences, Leipzig, Germany (with the poster: "*The Schrödinger equation on star-graphs under general coupling conditions*")
- XIV-eme Colloque Franco-Roumain de Mathematiques Appliquees, August 27-31, University of Bordeaux, Bordeaux, France (with the talk: "*The Schrödinger equation on star-graphs under general coupling conditions*")
- Summer School on Nonlocal Interactions in PDEs and Geometry, May 21-25, 2018, Mittag-Leffler Institute, Stockholm, Sweden (with the talk "*The Schrödinger equation on a star-shaped graph under general coupling conditions*")
- 2017 VII Partial Differential Equations, Optimal Design and numerics, August 20-September 1, 2017, Centro de Ciencias Pedro Pascual, Benasque, Spain (with the talk: "*Dispersive Properties for the Linear Schrödinger Equation on Star-Graphs. Application to NLS*")
- Insubria Summer School in Mathematical Physics, September 18-22, 2017, Universita degli Studi Dell'Insubria, Como, Italy (with the poster: "*Dispersive and Strichartz estimates for the linear Schrödinger equation on star-graphs*")
- Nonlinear Partial Differential Equations on Graphs, June 18-24, 2017, Mathematisches Forschungsinstitut Oberwolfach, Germany, (with the talk: "*Dispersive Properties for the Linear Schrödinger Equation on Star-Graphs. Application to NLS*") - Oberwolfach Leibniz Graduate Student
- Workshop in Geometry and PDEs, June 13-14, West University of Timisoara, Timisoara, Romania (with the talk: "*Dispersive Properties for the linear Schrödinger Equation on Star-Shaped Graphs*")
- Workshop for Young Researchers in Mathematics, 7th Edition, May 17-20, 2017, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania (with the talk: "*Dispersive Properties for the Linear Schrödinger Equation on Star-Shaped Graphs*")
- 2016 Happy PDEs' Days, December 8-9, 2016, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania (with the talk: "*Laplacians on Metric Graphs*")
- XIII-eme Colloque Franco-Roumain de Mathematiques Appliquees, August 25-29, 2016, "Alexandru Ioan Cuza" University, Iasi, Romania (with the talk: "*Dispersive and Strichartz Estimates for the Solution of the Schrödinger Equation on a Graph with Cycle*")
- Workshop for Young Researchers in Mathematics, 6th Edition, May 19-22, 2016, Ovidiu University, Constanta, Romania (with the talk: "*Dispersive Properties of the Solution for the Schrödinger Equation on a Graph with Cycle*")
- Workshop for Young Researchers in Mathematics, May 21-24, 2015, 5th Edition, Constanta, Romania (with the talk: "*Heat and Schrödinger Kernels on Graphs with Cycles*")
- ### Other Attendances
- 2021 Workshop for Young Researchers in Mathematics (online conference), May 20-21, 2021, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania
- 2020 QGraph 2020: Quantum graphs in Mathematics, Physics and Applications (online conference), December 8-9, 2020, Stockholm University, Stockholm, Sweden

- 2019 Regional Romanian-French Summer School in Applied Mathematics, 6th Edition, July 3-11, 2019, Sinaia, Romania
- The Ninth Congress of Romanian Mathematicians, June 28 - July 3, 2019, Galati, Romania
- Workshop for Young Researchers in Mathematics, June 03-04, 2019, University of Bucharest, Bucharest, Romania
- 2018 Unique Continuation and Uncertainty Principles, November 26-30, 2018, Basque Center for Applied Mathematics, Bilbao, Spain
- Workshop of Analysis, Differential Equations and Mechanics, November 9, 2018, University of Bucharest, Bucharest, Romania
- Regional Romanian-French Summer School in Applied Mathematics, 5th Edition, July 2-10, 2018, Sinaia, Romania
- Summer School on Fractional and Other Nonlocal Models, May 28-31, 2018, Basque Center for Applied Mathematics, Bilbao, Spain
- Workshop for Young Researchers in Mathematics, May 17-18, 2018, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania
- Atelier Transitions de Phase et Equations Nonlocales, April 25-27, 2018, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania
- 2017 Atelier de travail en Equations aux Dérivées Partielles, December 7-8, 2017, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania
- Harmonic Analysis, Spectral Theory and PDEs, September 12-15, 2017, Sapienza Universita di Roma, Rome, Italy
- Regional Romanian-French Summer School in Applied Mathematics, 4th Edition, July 3-11, 2017, Sinaia, Romania
- Minischool on Recent Trends in PDEs, March 21-30, 2017, Universidad Autonoma de Madrid, Madrid, Spain
- 2016 Regional Romanian-French Summer School in Applied Mathematics, 3rd Edition, June 29-July 7, 2016, Sinaia, Romania
- The 14th Romanian-Finnish Seminar (International Conference on Complex Analysis and Related Topics), June 20-24, 2016, Bucharest, Romania
- The 6th Workshop Series on Mathematics, June 3-June 4, 2016, Pitesti, Romania
- 2015 Partial Differential Equations, Optimal Design and Numerics, August 23-September 4, 2015, Centro de Ciencias Pedro Pascual, Benasque, Spain
- Frontiers of Mathematics and Applications IV, Summer Course UIMP, July 20-24, 2015, Santander, Spain
- Regional Romanian-French Summer School in Applied Mathematics, 2nd Edition, July 1-9, 2015, Sinaia, Romania
- The Eighth Congress of Romanian Mathematicians, June 26-July 1, 2015, "Alexandru Ioan Cuza" University, Iasi, Romania
- 2014 Regional Romanian-French Summer School in Applied Mathematics, 1st Edition, July 2-10, 2014, Sinaia, Romania

Communications in scientific seminars

2017 Introduction to conservation laws, November 27, 2017 - Scientific Seminar on PDEs,
University Of Bucharest

Other Communications

2020 Limits of sequences of real numbers. Limits of functions, Faculty of Mathematics
Admission Lessons, March 07, 2020, University of Bucharest, Bucharest, Romania

2018 Limits of sequences of real numbers. Limits of functions, Faculty of Mathematics
Admission Lessons, March 10, 2018, University of Bucharest, Bucharest, Romania

Organization of events

2018 Atelier de travail en Equations aux Derivees Partielles, December 13-14, 2018, "Simion
Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania

Language skills

Romanian - Native

English - Fluent

Software skills

MATLAB

Python

LaTeX

MS Office