CURRICULUM VITAE

Laurenţiu Leuştean

PERSONAL DATA

- Birth Date: January 16, 1971, Drobeta-Turnu Severin, Romania

- Nationality: Romanian

- Family status: Married to Ioana Leuştean (since July 15, 1995) with whom I have three children (Maria, Andrei, Ştefan)

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AFFILIATION

Professor
Faculty of Mathematics and Computer Science, University of Bucharest, Romania
Academiei 14, P.O. Box 010014, Bucharest, Romania

and

Senior Researcher
Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), Bucharest, Romania
P.O. Box 1-764, RO-014700, Bucharest, Romania

EDUCATION

- May 16, 2013: Habilitation in Mathematics, Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), Bucharest, Romania

- October 16, 2009: Habilitation in Mathematics, Technische Universität Darmstadt, Germany

- May 19, 2004: PhD in Mathematics, University of Bucharest, Romania

- 1995 - 1996: Master in Computer Science, Faculty of Mathematics and Computer Science, University of Bucharest, Romania

- 1990-1995: Undergraduate Studies in Computer Science, Faculty of Mathematics and Computer Science, University of Bucharest, Romania

EMPLOYMENT

- October 1, 2014 - present: Professor, Faculty of Mathematics and Computer Science, University of Bucharest, Romania

- January 1, 2014 - present: Senior Researcher II, Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), Bucharest, Romania

- October 1, 2003 - December 31, 2013: Scientific Researcher, Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), Bucharest, Romania

- April 1, 2004 - October 31, 2009: Postdoctoral Position (Wissenschaftlicher Mitarbeiter), Department of Mathematics, Technische Universität Darmstadt, Germany

- June 1, 2000 - September 31, 2003: Researcher, National Institute for Research and Development in Informatics (ICI), Bucharest, Romania

- November 1, 1996 - May 31, 2000: Programmer, National Institute for Research and Development in Informatics (ICI), Bucharest, Romania

AWARDS

- The 2010 Simion Stoilow Prize of the Romanian Academy (awarded in 2012)

FELLOWSHIPS

- October 16, 2008 - February 13, 2009 and September 14 - October 31, 2009: Oberwolfach Leibniz Fellowship, Mathematisches Forschungsinstitut Oberwolfach, Germany

- April 27-29, 2006: Horizons of Truth: Logics, Foundations of Mathematics, and the Quest for Understanding the Nature of Knowledge. Gödel Centenary 2006. An International Symposium Celebrating the 100th Birthday of Kurt Gödel, Vienna, Austria
Young Scholar Competition, chosen between the 10 scholars (out of 63 applicants) to attend the meeting and present their project proposals

- July 7 - September 14, 2003: NASA Ames/RIACS 2003 Summer Student Research Program (Second Year), organized by NASA Ames Research Center and the Research Institute for Advanced Computer Science (RIACS), Moffet Field, CA, USA

- June 10 - August 16, 2002: NASA Ames/RIACS 2002 Summer Student Research Program, organized by NASA Ames Research Center and the Research Institute for Advanced Computer Science (RIACS), Moffet Field, CA, USA

- January 8 - June 7, 2002: Marie Curie Fellowship (mobility research training grant from the European Community) at BRICS (Basic Research in Computer Science) International PhD School, University of Aarhus, Denmark

RESEARCH GRANTS

- Principal Investigator of the Grant *Proof mining in metric analysis, geometric group theory and ergodic theory*, CNCS Romania, PN-II-ID-PCE-2011-3-0383, 2011- present

- Member of the Grant *Optimized program synthesis from proofs*, CNCS Romania, PN-II-RU-TE-2011-3-0122, 2011-2013

- Member of Deutsch-Südafrikanisches Kooperationsprojekt *From continuity to computability*, DFG (Deutsche Forschungsgemeinschaft), 2007-2009

- Member of Deutsch-Russisches Kooperationsprojekt *Berechnungen über nicht diskreten Strukturen: Modelle, Semantik, Komplexität*, DFG (Deutsche Forschungsgemeinschaft), 2006-2008

SCIENTIFIC VISITS

- November 1 - 10, 2012: Technische Universität Darmstadt, Germany (invited by Ulrich Kohlenbach)

- April 19 - May 19, 2012: University of Illinois at Urbana-Champaign, USA (invited by Grigore Roşu)

- May 25 - June 14, 2010: Department of Mathematical Analysis, University of Seville, Spain (invited by Genaro Lopez)

- March 1 - April 15, 2007: Max Planck Institute for Mathematics, Bonn, Germany (participation at the Trimestre on Methods of Proof Theory)

- February 16 - 28, 2001: Dipartimento di Matematica e Informatica, Universita' di Salerno, Italy (invited by Antonio Di Nola)

PROFESSIONAL ACTIVITIES

- Member of:

  - American Mathematical Society (AMS) (2003 -)
  - Association for Symbolic Logic (2004 - 2009 and 2013 -)
  - Deutsche Vereinigung für Mathematische Logik und für Grundlagenforschung der Exakten Wissenschaften (DVMLG) (2010 -)

- Reviewer for Mathematical Reviews (2007 -) and Zentralblatt MATH (2010 -)

- Coordinator of the Logic Seminar (2012 -), IMAR and Faculty of Mathematics and Computer Science, University of Bucharest Romania

- Organizing Committee Member:

    - Special Session: Logic in Computer Science, The Eighth Congress of Romanian Mathematicians, June 26 - July 1, Iaşi, Romania.
    - Algebra and Probability in Many-Valued Logics, International Workshop on Logical and Algebraic aspects of Many-Valued Reasoning, May 14-16, 2009, Technische Universität Darmstadt, Germany

- Refereeing for Journals or Publishers: Acta Applicandae Mathematicae, Advances in Nonlinear Analysis, Analele Stiintifice ale Universitatii Ovidius Constanta, Annals of the Alexandru Ioan Cuza University, Annals of Pure and Applied Logic, Annals of Functional Analysis, Computers and Mathematics with Applications, Fixed Point Theory and Applications, International Journal of Mathematics and Mathematical Sciences, Journal of Advanced Mathematical Studies, Journal of Mathematical Analysis and Applications, Journal of Multiple-Valued Logic and Soft Computing, Mathematical Reports, Mathematisches Zeitschrift, Nonlinear Analysis, Proceedings of the Romanian Academy, Romanian Journal of Pure and Applied Mathematics, Rendiconti del Circolo Matematico di Palermo, Soft Computing, Computer Science Logic 2005, 2006, European Analytical Philosophy Congress 2014

TEACHING RECORD

Courses Taught

- *Model Theory*, Master I, Department of Computer Science, Faculty of Mathematics and Computer Science, University of Bucharest, Summer Term 2015.

- *Techniques of Combinatorial Optimization*, Master I, Department of Computer Science, Faculty of Mathematics and Computer Science, University of Bucharest, Winter Term 2014/2015.

- *Ergodic theory and additive combinatorics*, Department of Mathematics, SNSB (Şcoala Normală Superioară Bucureşti), Summer Term 2013.

- *Ergodic Ramsey Theory*, Department of Mathematics, SNSB (Şcoala Normală Superioară Bucureşti), Winter Term 2010/2011.

- *Analysis II* for MCS (Mathematics with Computer Science), Department of Mathematics, Technische Universität Darmstadt, Germany, Summer Terms 2006 and 2007.

- *Analysis I* for MCS (Mathematics with Computer Science), Department of Mathematics, Technische Universität Darmstadt, Germany, Winter Term 2006/2007.

Scientific Seminars

- *Effective methods in (nonlinear) ergodic theory*, Department of Mathematics, SNSB (Şcoala Normală Superioară Bucureşti), Summer Term 2011.

Assistant for Undergraduate Courses

- *Linear Algebra II*, Department of Mathematics, Technische Universität Darmstadt, Germany, Germany, Summer Term 2009

- *Analysis II* for MCS (Mathematics with Computer Science), Department of Mathematics, Technische Universität Darmstadt, Germany, Germany, Summer Terms 2004, 2005 and 2008.

- *Analysis I* for MCS (Mathematics with Computer Science), Department of Mathematics, Technische Universität Darmstadt, Germany, Germany, Winter Term 2004/2005 and 2005/2006.

TALKS

Invited Talks at Conferences and Workshops

- *Proof theoretic methods in nonlinear analysys III. Quantitative results on Féjer monotone sequences* Oberwolfach Workshop 1147: Mathematical Logic: Proof Theory, Type Theory and Constructive Mathematics,

Mathematisches Forschungsinstitut Oberwolfach, Germany, November 16 - 22, 2014.

- *An invitation to proof mining,*Topics in Geometric Group Theory, Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), Bucharest, 29.09 - 05.10 2014

- *Effective methods in geodesic spaces*, IRTG Research Seminar "Proof Mining and Nonlinear Analysis", Technische Universität Darmstadt, 26.02 - 28.02.2014.

- *Proof mining and applications in nonlinear ergodic theory*, Anniversary Conference "Faculty of Sciences - 150 years", University of Bucharest, 29.08 - 01.09.2013.

- *Effective methods in geodesic spaces*, Workshop on Operator Theory in Metric Spaces, Department of Mathematical Analysis, Universidad de Sevilla, 03 - 04.04.2013.

- *Firmly nonexpansive mappings in classes of geodesic spaces*, 21st International Symposium on Mathematical Programming (ISMP 2012), Berlin, Germany, August 19-24, 2012,
Invited Session: Variational inequalities and optimization problems on Riemannian manifolds.

- *Recent developments in proof mining*, Oberwolfach Workshop 1145: Mathematical Logic: Proof Theory, Type Theory and Constructive Mathematics, Mathematisches Forschungsinstitut Oberwolfach, Germany, November 6-12, 2011.

- *Logical methods in nonlinear analysis*, Conference on Nonlinear Analysis and Optimization (in celebration of Alex Ioffe's 70th and Simeon Reich's 60th birthdays), Technion, Haifa, Israel, June 18-24, 2008.

- *Recent results in proof mining*, Oberwolfach Workshop 0815: Mathematical Logic: Proof Theory, Constructive Mathematics, Mathematisches Forschungsinstitut Oberwolfach, Germany, April 6-12, 2008.

- *Recent uses of proof mining*, Conference "Methods of Proof Theory in Mathematics", Max-Planck Institute for Mathematics, Bonn, Germany, June 4-9, 2007.

- *Proof mining in $CAT(0)$-spaces and $\mathbb{R}$-trees* , AMS-MAA Joint Mathematics Meetings, AMS-ASL Special Session on Logical Methods in Computational Mathematics, New Orleans, USA, January 5-8, 2007.

- *Proof mining in functional analysis, hyperbolic geometry and group theory*, Horizons of Truth: Logics, Foundations of Mathematics, and the Quest for Understanding the Nature of Knowledge. Gödel Centenary 2006. An International Symposium Celebrating the 100th Birthday of Kurt Gödel, Vienna, Austria, April 27, 2006.

- *Proof mining in CAT(0)-spaces*, MAP (Mathematics, Algorithms, Proofs), 2006, Castro Urdiales, Spain, January 9-13, 2006.

- *The approximate fixed point property in product spaces*, Oberwolfach Workshop 0512: Mathematical Logic: Proof Theory, Type Theory and Constructive Mathematics, Mathematisches Forschungsinstitut Oberwolfach, Germany, March 20-26, 2005.

- *Approximate fixed points of nonexpansive functions in product spaces*, Dagstuhl Seminar 05021: MAP (Mathematics, Algorithms, Proofs), Internationales Begegnungs- und Forschungszentrum (IBFI), Schloss Dagstuhl, Germany, January 09-14, 2005.

- *Proof mining in fixed point theory*, Workshop on Proof Theory and Algorithms, ICMS (International Center for Mathematical Sciences), Edinburgh, United Kingdom, March 22-29, 2003.

Invited Seminar and Colloquium Talks

- *Proof mining in nonlinear analysis*, Logic Seminar, Technische Universität Darmstadt, 09.11.2012.

- *Proof mining in nonlinear analysis*, Logic Seminar, Department of Mathematics, University of Illinois at Urbana-Champaign, USA, May 1, 2012.

- *Uniform (approximate) fixed point property*, Department of Mathematical Analysis, University of Seville, Spain, June 13, 2010.

- *Effective methods in metric fixed point theory and ergodic theory*, Department of Mathematical Analysis, University of Seville, Spain, June 14, 2010.

- *Proof mining in metric fixed point theory and ergodic theory*, Oberseminar mathematische Logik, Universität Bonn, Germany, October 19, 2009.

- *Logical methods in nonlinear analysis*, Seminaire de l'Equipe de Mathématiques Appliquées, Université Paul Verlaine-Metz, France, February 14, 2008.

- *Approximate fixed points of nonexpansive mappings*, Max-Planck Institute for Mathematics, Bonn, Germany, March 21, 2007.

- *Proof mining in fixed point theory*, Max-Planck Institute for Mathematics, Bonn, Germany, March 8, 2007.

- *Detecting inconsistencies in domain theories*, NASA Ames/RIACS 2003 SSRP (Summer Student Research Program) Seminar, NASA Ames Research Center and Research Institute for Advanced Computer Science (RIACS), Moffet Field, California, USA, September 2, 2003.

- *Proof mining in fixed point theory*, Mathematical Logic Seminar, Stanford University, CA, USA, August 6, 2002.

- *Certifying Kalman filters*, NASA Ames/RIACS 2002 SSRP (Summer Student Research Program) Seminar, NASA Ames Research Center and Research Institute for Advanced Computer Science (RIACS), Moffet Field, California, USA, August 1, 2002.

- *Compact representations of BL-algebras*, Logic and Semantics Seminar, BRICS (Basic Research in Computer Science), University of Aarhus, Denmark, May 15, 2002.

Talks at Conferences and Workshops

- *Effective results on the asymptotic behavior of nonexpansive iterations*, Logic Colloquium 2014, Vienna, Austria, July 14-19, 2014.

- *An application of proof mining in nonlinear analysis*, Logic Colloquium 2012, Manchester, Great Britain, July 12-18, 2012.

- *Proof mining in metric fixed point theory*, ICFPTA 2009 (The 9th International Conference on Fixed Point Theory and its Applications), Changhua, Taiwan, July 16 - 22, 2009.

- *Recent applications of proof mining in ergodic theory*, Colloquium Logicum 2008, Darmstadt, Germany, September 10-13, 2008.

- *Logical methods in nonlinear analysis*, WCNA (World Congress of Nonlinear Analysis) 2008, Orlando, USA, July 2-11, 2008.

- *Proof mining in nonlinear analysis*, Domains VIII and Computability Over Continuous Data Types, Novo-sibirsk, Russia, September 11 - 15, 2007.

- *Logical methods in fixed point theory*, ICFPTA 2007 (The 8th International Conference on Fixed Point Theory and Applications), Chiang Mai, Thailand, July 17-22, 2007.

- *Proof mining in $\mathbb{R}$-trees and hyperbolic spaces*, 13th Workshop on Logic, Language, Information and Computation (WoLLIC'2006), Stanford, CA, USA, July 18-21, 2006.

Seminar Talks

- *An invitation to proof mining II (Effective results on the mean ergodic theorem)*, Logic in Computer Science Seminar, University of Bucharest, May 22, 2014.

- *An invitation to proof mining I*, Logic in Computer Science Seminar, University of Bucharest, May 16, 2014.

- *An application of proof mining to nonlinear iterations I-IV*, Logic Seminar, Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), January - February 2013.

- *Logical metatheorems for metric analysis I-IX*, Seminar "Effective methods in metric analysis", Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), February - April 2012.

- *Nonexpansive mappings in uniformly convex geodesic spaces I-III*, Seminar "Effective methods in metric analysis", Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR), January 2012.

- *Proof mining in metric fixed point theory and ergodic theory*, Department of Mathematics, Technische Universität Darmstadt, Germany, November 28, 2008.

- *Proof mining in ergodic theory and fixed point theory*, Logic Seminar, Department of Mathematics, Technische Universität Darmstadt, Germany, June 27, 2008.

- *Proof mining in fixed point theory*, Logic Seminar, Department of Mathematics, Technische Universität Darmstadt, Germany, May 25, 2007.

- *Proof mining in functional analysis*, University of Bucharest, Romania, September 21, 2006.

- *Representations of many-valued algebras*, AG1 Seminar, Department of Mathematics, Technische Universität Darmstadt, Germany, June 11, 2004.

- *Boolean products of BL-algebras*, Weekly Seminar "Alexandru Brezuleanu", University of Bucharest, Romania, January 23, 2003.

- *Compact representations of BL-algebras*, Weekly Seminar "Alexandru Brezuleanu", University of Bucharest, Romania, January 16, 2003.

- *Proof mining in fixed point theory*, ASE, Bucharest, Romania, September 17, 2002.

- *Sheaf representations of BL-algebras*, Communication Session "Alexandru Brezuleanu", University of Bucha-rest, Romania, May 5, 2001.

- *Boolean products of BL-algebras*, Anniversary Symposium "Sergiu Rudeanu", University of Bucharest, Romania, February 9, 2000.

- *Canonical models and filtrations in three-valued modal propositional logic*, Communication Session "Grigore C. Moisil", University of Bucharest, Romania, June 19, 1998.