

Curriculum Vitae

1 Personal Data

Name: EMIL HOROBET

Address:

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Nationality:

2 Studies

2.1 B.Sc. Studies

Period: 2007-2010

Institute: Babeş-Bolyai University, Cluj-Napoca, Romania. B.Sc. in Mathematics

Title of the diploma work: Representation Theory of skew group algebras

Scientific Adviser: Dr. Andrei Marcus

2.2 M.Sc. Studies

Period: 2010-2012

Institute: Babeş-Bolyai University, Cluj-Napoca, Romania. M.Sc. in Computational Mathematics

Title of the dissertation: Module category of skew group algebras

Scientific adviser: Dr. Andrei Marcus

Period: 2011-2012

Institute: Central European University, Budapest, Hungary. M.Sc. in Mathematics and it's Applications.

2.3 Ph.D. Studies

Period: 2012-2016

Institute: Eindhoven University of Technology, The Netherlands

Title of thesis: Tensors of Low Rank

Scientific adviser: Dr. Jan Draisma

3 Employment

- 2019 September-present: Associate Professor, Sapiientia University, Department of Mathematics and Computer Science, Tg. Mureş, Romania
- 2017 September-2019 September: Lecturer, Sapiientia University, Department of Mathematics and Computer Science, Tg. Mureş, Romania
- 2016 September-2017 September: Assistant Lecturer, Sapiientia University, Department of Mathematics and Computer Science, Tg. Mureş, Romania
- 2013 September - 2016 September: Research Assistant, "Babeş-Bolyai" University, Romania, within the project: PN-II-ID-PCE-2012-4-0100, named *Categorical and combinatorial methods in representation theory*.
- 2012 September - 2016 August: Ph.D. student, Eindhoven University of Technology, The Netherlands, supervisor: Dr. Jan Draisma, within the NWO Free Competition Grant, project name: *Tensors of bounded rank*.
- 2011 May - 2012 August: Actuarial mathematician, UNIQA Raiffeisen Software Service, Cluj-Napoca, Romania.

4 Awards

- International (Hungarian) Mathematical Contest: 2007 (Szeged-Hungary) Silver medal
- Youth Contest of the Hungarian Innovation Center (2008, Honorable Mention). Project Title: Equichordal Curves in multi-dimensional spaces.
- BeNeLux Mathematical Congress Ph. D. prize (2016, selected for presentation)

5 Research projects

- 2019-2020 Co-applicant: Institute of Scientific Research, Sapiientia University, project named *Critical points from analysis to algebra II*.
- 2017-2019 Co-applicant: Institute of Scientific Research, Sapiientia University, project named *Critical points from analysis to algebra I*.

- 2013-2016 Member: Romanian National Science Foundation (UEFISCDI) project number PN-II-ID-PCE-2012-4-0100, named *Categorical and combinatorial methods in representation theory*.
- 2012-2016: Member: N.W.O. (Netherlands Wiskunde Organization) Free Competition Grant, project name: *Tensors of bounded rank*.

6 Memberships

- Member: SIAM Algebraic Geometry Activity Group since 2013.

7 Research visits

- Guest researcher: Max Planck Institute for Mathematics in the Sciences (MIS) in Leipzig, Germany, period: June-July 2017 (one month), in the Nonlinear algebra group, led by dr. Bernd Sturmfels.
- Guest researcher: Max Planck Institute for Mathematics in the Sciences (MIS) in Leipzig, Germany, period: January-February 2018 (one month), in the Nonlinear algebra group, led by dr. Bernd Sturmfels.

8 Teaching activity

8.1 Lectures and instructions

- Lectures and instructions at Sapientia University in the period 2017-2018: Lectures: Algebra (for first year computer science students), Linear algebra, analytic and differential geometry (for first year mechanical engineering students), Probability and statistics (for third year computer science students); Instruction classes: Algebra, Linear algebra, analytic and differential geometry, Bio-statistics, Probability and statistics.
- Instruction classes at Sapientia University in the period 2016-2017: Linear algebra, analytic and differential geometry, Calculus I and II, Probability and Statistics, Numerical Mathematics.
- Instruction classes at TU Eindhoven in the period 2012-2016: Mathematics I (instruction consisting of linear algebra and analytic geometry for electrical engineers) and Calculus Tutoring (basic calculus for first year students).

8.2 Management and organization

- Student project supervision: student name: Kucsván Zsolt-Levente, title: *Challenges in computer vision*; project presented by the student at the 6th

International Conference on Mathematics and Informatics, Tg. Mureş, 2017;

- Responsible person for the mathematics curriculum design since 2016, at Sapientia University.
- Co-organizer of the 6-th International Conference on Mathematics and Informatics, Tg. Mureş, 2017;
- Co-organizer of the 7-th International Conference on Mathematics and Informatics, Tg. Mureş, 2019;

9 Personal Competencies

Mother's Language: Hungarian

Other Languages: Romanian (fluent), English (fluent), German(elementary).

10 Workshops and Conferences (selected list)

1. International Conference on modules and representation theory, Cluj-Napoca, Romania, July 7-14, 2008.
2. Advanced School and Conference on Homological and Geometrical Methods in Representation Theory, ICTP, Trieste, Italy, January 18- February 05, 2010.
3. Combinatorial Algebraic Geometry Summer course, Levico Terme, Italy, June 10-15, 2013.
4. Polynomial Optimization Summer School, Isaac Newton Institute, Cambridge, United Kingdom, July 15-August 09, 2013.
5. SIAM conference on Applied Algebraic Geometry, Fort Collins, Colorado, August 1-4, 2013.
6. Summer School on An Interdisciplinary Approach to Tensor Decomposition. Trento, Italy, July 14-18, 2014.
7. Symbolic and Numerical Methods for Tensors and Representation Theory, Berkeley, California, November 17-20, 2014.
8. Effective Methods in Algebraic Geometry (MEGA 2015), Trento, Italy, June 15-19, 2015.
9. SIAM Conference on Applied Algebraic Geometry (AG15), Daejeon, South Korea, August 3-7, 2015.
10. Oberwolfach Workshop on Algebraic Statistics, Oberwolfach, Germany April 16-22, 2017.

11. Workshop for Young Researchers in Mathematics 8th edition, IMAR, Bucharest, Romania, May 17-18, 2018.
12. Workshop on random algebraic geometry, Trieste, Italy, October 29-30, 2018.
13. SIAM Conference on Applied Algebraic Geometry (AG19), Bern, Switzerland, July 9 - 13, 2019.