

CURRICULUM VITAE

DANIEL MATEI

PERSONAL

Data si locul nasterii: Septembrie 9, 1967, la Craiova, Dolj, Romania.

Nationalitatea: Roman

Familie: Casatorit, doi copii.

LOCUL de MUNCA

Matematician, cercetator stiintific gradul III
Institutul de Matematica "Simion Stoilow" al Academiei Romane
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EDUCATIE

Liceu: Craiova, 1980–1985, Diploma Bacalaureat, Iulie 1985.

Serviciu Militar: Septembrie 1985–Mai 1986.

Studii universitare:

Universitatea Bucuresti, 1986–1990, Diploma de Licenta, Matematica, Iunie 1990.

Teza: *Spatiile de moduli de conexiuni Yang-Mills.*

Coordonator: *Kostake Teleman*

Studii masterale:

Universitatea Bucuresti, 1990–1991, Masterat in Matematica, Iunie 1991.

Teza: *Invarianti polinomiali de noduri si linkuri.*

Coordonator: *Stefan Papadima*

Studii doctorale:

Universitatea Northeastern, Boston, Massachusetts, S.U.A., 1993–1999.

Ph.D. in Mathematics (Doctor in Matematica), Septembrie 1999.

Teza: *Fundamental groups of links and arrangements (Grupurile fundamentale ale inlantuirilor si aranjamentelor).* Coordonator: *Alexandru Suciu*

LOCURI de MUNCA:

Cercetator gradul III	Instit. de Mat., Bucharest	din Septembrie 2005
Postdoctoral Fellow	MSRI, Berkeley	Aug.–Dec. 2004
Visiting Scholar	Northeastern University	Feb.–Mai 2004
Assistant Professor	University of Tokyo	Oct. 2002–Feb. 2004
Assistant Professor	University of Rochester	Sept. 1999–Iunie 2002
Teaching Assistant	Northeastern University	Sept. 1993–Aug. 1999
Cercetator asistent	Instit. de Mat., Bucuresti	din Iunie 1993
Cercetator stagiar	Instit. de Mat., Bucuresti	Sept. 1991–Iunie 1993
Preparator	Universitatea Bucuresti	Sept. 1990–Iunie 1991

POZITII de VISITING

Professeur Invite	Université de Lille	Ianuarie–Mai 2013
Visiting Researcher	Scuola Normale Pisa	Mai–Iunie 2010
Visiting Researcher	Université de Pau, CNRS	Nov. 2009–Ian. 2010
Research Fellow	University of Zaragoza	Iulie.–Dec. 2006, Oct.–Dec. 2011
Visiting Researcher	University of Tokyo	Oct. 2005–Martie 2006
Chercheur Invite	Inst. J. Fourier, Grenoble	Mai–Iunie 2005, Nov.–Dec. 2010
Visiting Scholar	Northeastern University	Februarie–Mai 2004

PUBLICATII

Articole publicate:

1. *Characteristic varieties of quasi-projective manifolds and orbifolds*, cu E. Artal-Bartolo, J.I. Cogolludo-Agustin, in *Geom. Top.* 17 (2013) 273–309;
2. *Hyperplane arrangements of Torelli type*, cu D. Faenzi, J. Vallès, in *Comp. Math.* 149 (2013), 309–332;
3. *Fundamental groups of quasiprojective manifolds and orbifolds*, in “7th Congress of Romanian Mathematicians, Brasov, 2011”, Editura Academiei Române, 2013, 197–205.
4. *Cohomology algebra of plane curves, weak combinatorial type, and formality*, cu J.I. Cogolludo-Agustin, in *Transactions of the A.M.S.* 364 (2012), 5765–5790;
5. *Orbifold groups, quasi-projectivity and covers*, cu E. Artal-Bartolo, J.I. Cogolludo-Agustin, in *Journal of Singularities* 5 (2012), 33–47;
6. *Quasi-projectivity, Artin groups and pencil maps*, cu E. Artal-Bartolo, J.I. Cogolludo-Agustin, *A.M.S. Contemporary Mathematics* 538 (2011), 113–136;
7. *Homology of finite index subgroups of finitely presented groups*, *An. Stiint. Univ. Al. I. Cuza Iasi. Mat.* 53 (2007), 241–276.
8. *Pro- p link groups and p -homology groups*, cu J. Hillman, M. Morishita, in *Primes and knots*, *A.M.S. Contemporary Mathematics* 416 (2006), 121–136;
9. *Massey products of complex hypersurface complements*, *Adv. Stud. in Pure Math.*, vol. 43 (2006), MSJ, Tokyo, 205–219;
10. *Counting homomorphisms onto finite solvable groups*, cu A. Suciu, *Journal of Algebra* 286 (2005), 161–186;
11. *Hall Invariants, homology of subgroups and characteristic varieties*, cu A. Suciu, *International Math. Research Notices* 9 (2002), 465–503;
12. *Cohomology rings and nilpotent quotients of real and complex arrangements*, cu A. Suciu, *Adv. Stud. in Pure Math.*, vol. 27 (2000), MSJ, Tokyo, 185–215.
13. *Homotopy types of complements of 2-arrangements in \mathbb{R}^4* , cu A. Suciu, *Topology* 39 (2000), no. 1, 61–88.

Articole in curs de publicare:

1. *On multiserver retrial queues: History, Okubo-type hypergeometric systems and matrix continued-fractions*, cu F. Avram, Y.Q. Zhao, urmeaza sa apara in “Asia-Pacific Journal of Operational Research”.
2. *Arrangements of hypersurfaces and Bestvina-Brady groups*, cu E. Artal-Bartolo, J.I. Cogolludo-Agustin, urmeaza sa apara in “Groups, Geometry, and Dynamics”.

CONFERINTE

Prezentari la conferinte internationale si seminarii:

- *Canada*: Fields Institute, Toronto; Pacific Institute of Math. Sci., Vancouver.
- *Europa*: SNS Pisa, Italy; Univ. de Zaragoza, Spain; Univ. de Pau, France; Oberwolfach Math. Inst., Germany; Inst. J. Fourier, Grenoble, France; Univ. of Bucharest, Romania.
- *Japan*: Hokkaido Univ., Sapporo; Tokyo Met. Univ.; Tohoku Univ., Sendai; Univ. of Tokyo.
- *S.U.A.*: MSRI, Berkeley; Univ. Massachusetts, Boston; Louisiana St. Univ., Baton Rouge; Florida St. Univ., Tallahassee; Johns Hopkins Univ., Baltimore; George Washington Univ., Washington D.C.; Columbia Univ., New York; Univ. of Michigan, Ann Arbor; Univ. of Rochester, Rochester; Northeastern Univ., Boston.

Conferinte internationale recente (2013-2007):

- *Fundamental groups of complex algebraic varieties and singularity links*, Faculty of Sciences 150 - Anniversary Conference, University of Bucharest, Romania; *Graphs, groups, homology*, Joint AMS-RMS Meeting, Alba-Iulia, Romania; *Topology of hypersurface arrangements*, Algebra, Geometry and Topology, Eforie, Romania;
- *Arrangements of hypertori and Artin kernels*, Singular Workshop, Zaragoza, Spain; *Characteristic varieties of quasiprojective manifolds and orbifolds*, Romanian Math Congress, Brasov, Romania; AMS Meeting, Worcester, MA; *Logarithmic sheaves and arrangements of hyperplanes*, Configuration Spaces, SNS Pisa, Italy; *Solvable representations of 3-manifold groups*, Workshop Pau-Zaragoza, Spain, *Plane curves and cohomology*, Non-Euclidean Geometry, Cluj, Romania;
- *Artin groups, algebraic curves and Alexander polynomials*, Braids in Pau, France; *Fundamental groups of smooth quasiprojective varieties*, Libgober fest, Jaca, Spain; *Moduli Spaces*, Sibiu, Romania; *Cohomology of complements to algebraic plane curves*, Topology of Stratified Spaces, MSRI; *Fundamental groups of smooth algebraic varieties*, Orlik fest, Fields Institute, Toronto; *Cohomology algebras of arrangements of plane curves*, AMS Meeting, LSU, Baton Rouge; *Arrangements of hypersurfaces and Bestvina-Brady groups*, Mini-Workshop, Oberwolfach.

ARII de CERCETARE

Matematica pura:

- Topologie algebrica: teoria omotopiei, spatii formale, produse Massey.
- Topologie geometrica: trese, spatii de configuratii, noduri, 3-varietati.
- Topologia varietatilor: aranjamente de hiperplane, hipersuprafete, singularitati.
- Teoria grupurilor: teoria combinatoriala a grupurilor, grupuri solvabile si nilpotente.

Matematica aplicata:

Metode algebrice si topologice in: biologie, informatica, robotica si statistica.

Geometrie si topologie in fizica matematica: teorie conforma de camp si simetrie in oglinda.

Proiecte de cercetare in curs:

1. Topologia aranjamentelor de hipersuprafete algebrice.
2. Homologia acoperirilor, varietati de reprezentari si invarianti de tip Alexander.
3. Metode algebrice in probabilitati si statistica.

EXPERIENTA DIDACTICA

Cursuri masterale si doctorale:

Introduction to Mirror Symmetry, SNSB, Bucharest, 2012.
Topology of Manifolds, SNSB, Bucharest, 2011.
Introduction to algebraic topology, SNSB, Bucharest, 2009.
Topological combinatorics, University of New Brunswick, Canada, 2009.
Fiber bundles and characteristic classes, SNSB, Bucharest, Fall 2008.
Introduction to Hodge theory, SNSB, Bucharest, Spring 2008.
Topology of algebraic plane curves, SNSB, Bucharest, 2007.
An introduction to knot theory via Khovanov homology, University of Tokyo, 2006.
Reidemeister torsion in knot theory, University of Tokyo, 2003.

Cursuri de primul ciclu: Algebra Liniara, Université de Lille, 2013

Analiza reala: University of Rochester, 1999-2002; Northeastern University, 1993-1999.

Geometrie diferentiala: Universitatea Bucuresti, 1990-1991.

Minicursuri: *Arrangements of hyperplanes, Algebraic statistics*, Univ. of Pau, 2009-2010; *Artin groups, Bestvina-Brady groups and arrangements of hypersurfaces*, CIMPA Summer School, Istanbul, 2007; *Massey products of cell complexes*, Univ. of Zaragoza, 2006; *Topology of hyperplane arrangements*, Inst. J. Fourier, 2005; *Braid monodromy of plane curves*, Univ. of Tokyo, 2003.

PREGATIRE INFORMATICA

Cunostinte de *Pascal, C, Unix, Mathematica, Maple, Macaulay, Gap*.

ACTIVITI de ORGANIZARE

Geometry and Topology of Arrangements of Hypersurfaces, special session of Joint AMS-RMS Meeting, June 2013, Alba-Iulia, Romania.

Arrangements in Pyrénées, School on hyperplane arrangements and related topics, June 2012, Université de Pau, France.

ASOCIATII PROFESIONALE

din 1993: Membru al "American Mathematical Society".

din 2002: Recenzent *Mathematical Reviews*.

din 2006: Recenzent *Zentralblatt Math*.

BURSE si GRANTURI de CERCETARE

2007-2011, 2013-2015: Research Grants of the National Research Council, Romania.

2011: Research Fellowship Grant of the Government of Aragon, Spain.

2010: Bourse du gouvernement français de séjour scientifique de haut niveau, France.

2010: Research Project Laboratoire Européen Associé CNRS, France-Roumanie.

2006: Research Fellowship Grant of the Ministry of Education and Science, Spain.

LIMBI STRAINE

Engleza si Franceza.

ALTE INTERESE

Educatia matematica, concursuri si olimpiade de matematica, algoritmi si matematica computationala, matematica financiara, istoria stiintei.

REFERINTE

Prof. Frederick Cohen, University of Rochester, USA, cohf@math.rochester.edu

Prof. Alexandru Dimca, Université de Nice, France, dimca@math.unice.fr

Prof. Louis Funar, Université de Grenoble, France, funar@fourier.ujf-grenoble.fr

Prof. Toshitake Kohno, University of Tokyo, Japan, kohno@ms.u-tokyo.ac.jp

Prof. Anatoly Libgober, University of Illinois at Chicago, USA libgober@math.uic.edu

Prof. Stefan Papadima, Inst. of Math., Bucharest, Romania, Stefan.Papadima@imar.ro

Prof. Hal Schenck, Univ. of Illinois at Urbana-Champaign, USA, schenck@math.uiuc.edu

Prof. Alexander Suci, Northeastern University, USA, a.suciu@neu.edu

Prof. Hiroaki Terao, Hokkaido University, Japan, hterao00@za3.so-net.ne.jp

Prof. Sergey Yuzvinsky, University of Oregon, USA, yuz@math.uoregon.edu