Raport Anual

Institutul de Matematică "Simion Stoilow" al Academiei Române

2017

Contents

1 Rezumat al celor mai importante realizări

În anul 2017 cercetătorii din IMAR au continuat studiul problemelor de cercetare din cadrul celor 6 Programe de Cercetare ale Academiei Române, a unei Teme Prioritare de Cercetare a Academiei Române şi al unui proiect ERC-like tip Grant de Excelenţă.
In perioada 2017-2020 se va derula proiectul GDRI-EcoMath, in colaborare cu CNRS, Academia Română, Université Paris-Sud şi Institutul de Matematică *Alfréd Rényi* al Academiei Ungare de Ştiinţe.

Printre principalele realizări obţinute în această activitate menţionăm publicarea a 96 de articole în reviste cotate ISI din străinătate.

Menţionăm de asemenea că în anul 2017 IMAR a participat la organizarea a 12 manifestări ştiinţifice internaţionale.

Publicaţii remarcabile apărute în anul 2016

- M. Aprodu, G. Farkas, A. Ortega: *Minimal resolutions, Chow forms of K3 surfaces and Ulrich bundles*, **Journal für die reine und angew. Mathematik, 730** (2017), pag. 225 – 250

- B. C. Berndt, A. Dixit, A. Roy, A. Zaharescu: *New pathways and connections in number theory and analysis motivated by two incorrect claims of Ramanujan*, **Adv. Math. 304** (2017), pag. 809 – 929.

- Horia D. Cornean, Bernard Helffer, Radu Purice: *Low lying spectral gaps induced by slowly varying magnetic fields*, **Journal of Functional Analysis, 273** (2017), pag. 206 – 282

- S. Papadima, A. Suciu: *The Milnor fibration of a hyperplane arrangement: from modular resonance to algebraic monodromy*, **Proc. London Math. Soc. 114** (2017), pag. 961–1004.

- L. Păunescu, F. Rădulescu: *A generalisation to Birkhoff–von Neumann theorem*, **Advances in Mathematics 308** (2017), pag. 836 – 858.

2 Lucrări publicate la finele lui 2016 şi neconţinute în Raportul pe 2016

2.1 În reviste din străinătate cotate ISI

1. S. Burciu: *On Müger's centralizer in braided equivariantized fusion categories*, **J. Algebra 466** (2016), pag. 100–140.

2. A.L. Agore, G. Militaru: *Extending structures, Galois groups and supersolvable associative algebras*, **Monatshefte für Mathematik 181** (2016), pag. 1–33

3. Vasile Dragan, Eduardo F. Costa: *Optimal stationary dynamic output-feedback controllers for discrete-time linear systems with Markovian jumping parameters and additive white noise perturbations-*, **IEEE Trans. on Automatic Control, 61,** (2016), pag. 3912 – 3924

4. Cornel Murea, Dan Tiba: *A direct algorithm in some free boundary problems*, **Journal of Numerical Mathematics 24** (2016), pag. 253 – 271

5. N. Papageorgiou, Vicenţiu D. Rădulescu: *Multiplicity theorems for resonant and superlinear nonhomogeneous elliptic equations*, **Topological Methods in Nonlinear Analysis 48** (2016), pag. 283-320.

6. M. Boureanu, Vicenţiu D. Rădulescu, D. Repovš: *On a $p(.)$-biharmonic problem with no-flux boundary condition*, **Computers and Mathematics with Applications 72** (2016), pag. 2505-2515.

7. N. Chorfi, Vicenţiu D. Rădulescu: *Continuous spectrum for some classes of $(p, 2)$-equations with linear or sublinear growth*, **Miskolc Math. Notes 17** (2016), pag. 817-826.

8. C. Raicu, J. Weyman: *Local cohomology with support in ideals of symmetric minors and Pfaffians*, **J. London Math. Soc. 94**, (2016), 709–725.

9. R. Diaconescu: *Functorial semantics of first-order views*, **Theoretical Computer Science 656** (2016), pag. 46 – 59

10. L. Leuştean, V. Radu, A. Sipoş: *Quantitative results on the Ishikawa iteration of Lipschitz pseudo-contractions*, **Journal of Nonlinear and Convex Analysis 17** (2016), pag. 2277 – 2292.

11. G. Polanco, D. Schultz, A. Zaharescu: *Continuous distributions arising from the three gap theorem*, **Int. J. Number Theory 12** (2016), pag. 1743 – 1764.

12. D. Beltiţă, K.-H. Neeb: *Polynomial representations of C^*-algebras and their applications.* **Integral Equations Operator Theory 86** (2016), no. 4, 545–578.

13. R. Pantilie: *Quaternionic-like manifolds and homogeneous twistor spaces*, **Proceedings of the Royal Society A, 472** (2016) 20160598, 11 pp.

2.2 În reviste din România cotate ISI

1. Victor Alexandru, Marian Vâjâitu, Alexandru Zaharescu: *Isometric Galois actions over p-adic fields*, **Bull. Math. Soc. Sci. Math. Roumanie, 59 (107)** (2016), pag. 295 – 301

2.3 În alte reviste

1. Mircea Cimpoeaş: *On the quasi-depth of squarefree monomial ideals and the sdepth of the monomial ideal of independent sets of a graph*, **An. Stiint Univ. Al. I. Cuza Iasi Mat. (N.S.) LXII** (2016), pag. 863 – 870

2. Mircea Cimpoeaş: *On the Stanley depth of the path ideal of a cycle graph*, **Rom. J. Math. Comput. Sci. 6** (2016), pag. 116 – 120

3. Vasile Dragan: *On the linear quadratic optimization problems and associated Riccati equations for systems modeled by Ito linear differential equations* , **Innovativity in Modeling and Analytics Journal of Research 1**, (2016), pag. 13 – 33

2.4 În volume de conferinţe

1. Vasile Ursu: *A correspondence between the commutative rings and Jordan loops*, **Collection of Abstracts**, The International Conference Mal'tsev Meeting. (International Mathematical Center Sobolev Institute of Mathematica of the Siberian Branch of the Russian Academy of Russia), (November 21-25, 2016, Novosibirsc, State University), p. 201.

2. Roxana Nicolai (Matei), Dan Tiba: *Implicit parametrizations and applications*, **CSMO 2015**, IFIP 2015, Nice, 2015, editori: L. Bociu et al, Springer International Publishing AG (2016), pag. 390 – 398

3. L. Maxim, M. Saito, J. Schürmann: *Hirzebruch-Milnor classes and Steenbrink spectra of certain projective hypersurfaces*, **Arbeitstagung Bonn 2013**, Progress in Mathematics 319, Springer International Publishing 2016, pag. 265–287

4. I. Chalendar, E. Fricain, D. Timotin: *A survey of some recent results on truncated Toeplitz operators*, **RECENT PROGRESS ON OPERATOR THEORY AND APPROXIMATION IN SPACES OF ANALYTIC FUNCTIONS**, Conference on the Completeness Problems, Carleson Measures, and Spaces of Analytic Functions, Inst Mittag Leffler, Djursholm, 29 iunie–3 iulie 2015; editori: Beneteau, C; Condori, AA; Liaw, C; Ross, WT; Sola, AA, editura AMS, Providence (2016), pag. 59–77, ISBN: 978-1-4704-2305-6.

5. D. T. Vuza, M. Vladescu: *Enhanced automated platform for 2D characterization of RFID communications*, **Proc. SPIE 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII**, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies, Constanta, Romania, 24 august 2016 - 28 august 2016, editori: I. Cristea, M. Vladescu, R. Tamas, SPIE, Bellingham, WA (2016), pag. 1001008 (9 pp.), doi: 10.1117/12.2246113

6. D. T. Vuza, M. Vladescu: *Studying the thermal regime of power LEDs by using the embedded protection diode*, **Proc. SPIE 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII**, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies, Constanta, Romania, 24 august 2016 - 28 august 2016, editori: I. Cristea, M. Vladescu, R. Tamas, SPIE, Bellingham, WA (2016), pag. 100101G (4 pp.), doi: 10.1117/12.2246113

2.5 Alte lucrări elaborate în cadrul contractelor IMAR

1. Marius Leordeanu, Alexandra Radu, Shumeet Baluja, Rahul Sukthankar: *Labeling the Features Not the Samples: Efficient Video Classification with Minimal Supervision*, **AAAI Conference on Artificial Intelligence. Rangul Conferintei: A+**

2. Radu Tudor Ionescu, Bogdan Alexe, Marius Leordeanu, Marius Popescu, Dim P. Papadopoulos, Vittorio Ferrari: *How Hard Can It Be? Estimating the Difficulty of Visual Search in an Image*, **The IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016, pp. 2157-2166. Rangul Conferintei: A+**

3. Dragos Costea, Marius Leordeanu: *Aerial image geolocalization from recognition and matching of roads and intersections*, **British Machine Vision Conference (BMVC) 2016. Rangul Conferintei: B**

3 Lucrări publicate în 2017

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2. Sebastian Burciu: *On the Grothendieck rings of generalized Drinfeld doubles*, **J. Algebra**, 486 (2017), pag. 14–35.

3. A.L. Agore: *The maximal dimension of unital subalgebras of the matrix algebra*, **Forum Math. 29** (2017), pag. 1–5

4. A.L. Agore, G. Militaru: *Hochschild products and global non-abelian cohomology for algebras. Applications*, **J. Pure Appl. Algebra 221** (2017), pag. 366–392

5. S. Dăscălescu, C. Năstăsescu, L. Năstăsescu: *Graded semisimple algebras are symmetric*, **J. Algebra, 491** (2017), pag. 207– 218

6. G. Pfister, D. Popescu: *Constructive General Neron Desingularization for one dimensional local rings*, **J. Symbolic Computation, 80** (2017), 570-580.

7. Z. Kosar, D. Popescu: *Nested Artin Strong Approximation Property*, **J. Pure Appl. Algebra**, 2017, https://doi.org/10.1016/j.jpaa.2017.05.008.

8. Z. Kosar, D. Popescu: *Constructive Neron Desingularization of algebras with big smooth locus*, **Commun. Algebra**, http://dx.doi.org/10.1080/00927872.2017.1360333, (2017).

9. L. Badea, F. Lebon: *Schwarz method for dual contact problems*, **Comp. Appl. Math., 36** (2017), pag. 719-731.

10. Marius Buliga, Géry de Saxcé: *A symplectic Brezis-Ekeland-Nayroles principle*, **Mathematics and Mechanics of Solids 22,** (2017), pag. 1288-1302

11. Ionescu-Kruse D., Martin C. I.: *Periodic equatorial water flows from a Hamiltonian perspective*, **J. Diff. Equations 262** (2017), 4451–4474.

12. Ionescu-Kruse D.: *Variational derivation of a geophysical Camassa-Holm type shallow water equation*, **Nonlinear Analysis 156** (2017), 286–294.

13. Ionescu-Kruse D.: *Exact steady azimuthal edge waves in rotating fluids*, **J. Math. Fluid Mechanics 19** (2017), 501–513.

14. Ionescu-Kruse D., Martin C. I.: *Local Stability for an Exact Steady Purely Azimuthal Equatorial Flow*, **J. Math. Fluid Mechanics** (2017), DOI: 10.1007/s00021-016-0311-4.

15. Ionescu-Kruse D.: *Local stability for an exact steady purely azimuthal flow which models the Antarctic Circumpolar Current*, **J. Math. Fluid Mechanics** (2017), DOI: 10.1007/s00021-017-0335-4.

16. Isabelle Gruais, Dan Poliševski: - *Heat transfer models for two-component media with interfacial jump*, **Applicable Analysis, 96** (2017), pag. 247 – 260

17. L. Beznea, I. Cîmpean, M. Röckner: *Irreducible recurrence, ergodicity, and extremality of invariant measures for resolvents*, **Stochastic Processes and their Applications** (2017), https://doi.org/10.1016/j.spa.2017.07.009

18. L. Beznea, S. Vlădoiu: *Markov processes on the Lipschitz boundary for the Neumann and Robin problems*, **J. Math. Anal. Appl. 455** (2017), 292–311

19. M. Colţoiu, Cezar Joiţa: *Finite coverings of complex spaces by connected Stein open sets*, **Math. Z. 287** (2017), pag.929 – 946.

20. Mihnea Colţoiu, Cezar Joiţa: *Convexity Properties of Intersections of Decreasing Sequences of q-Complete Domains in Complex Spaces*, **Publ. Res. Inst. Math. Sci. 53** (2017), pag. 587 – 595.

21. O. Preda: *On the Intersection of* $(n-1)$*-Complete Open Subsets with* $\mathcal{C}^2$ *Boundary in* $\mathbb{C}^n$, **Complex Anal. Oper. Theory, 11** (2017) pag. 1669–1684;

22. Ioniţă G.I.; O. Preda: *On the Projection of Stein Domains in Holomorphic Fiber Bundles*, **Complex Anal. Oper. Theory, 11** (2017) pag. 1839–1843;

23. Vasile Drăgan, Samir Aberkane: *Computing the stabilizing solution of a large class of stochastic game theoretic Riccati differential equations: a deterministic approximation*, **SIAM Journal on Control and Optimization, 55,** (2017), pag.650 – 670

24. Vasile Drăgan, Ivan G. Ivanov: *Sufficient conditions for Nash equilibrium point in the linear quadratic game for Markov jump positive systems*, **IET Control Theory and Applic., 11** (2017), pag. 2658 – 2667

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26. C. Cazacu, L. Ignat, A. Pazoto: *On the asymptotic behavior of a subcritical convection-diffusion equation with nonlocal diffusion* **Nonlinearity 30** (2017), 3126–3150

27. L. Ignat, T. Ignat: *Long-time behavior for a nonlocal convection diffusion equation*, **J. Math. Anal. Appl. 455** (2017), 816–831

28. Gh. Nenciu, I. Nenciu: *Drift-diffusion equations on domains in* $\mathbb{R}^d$*: Essential self-adjointness and stochastic completeness*, **J. Funct. Anal. 273** (2017), pag. 2619 – 2654

29. Horia D. Cornean, Bernard Helffer, Radu Purice: *Low lying spectral gaps induced by slowly varying magnetic fields*, **Journal of Functional Analysis, 273** (2017), pag. 206 – 282

30. G. Molica Bisci, V. D. Rădulescu, R. Servadei: *Competition phenomena for elliptic equations involving a general operator in divergence form*, **Analysis and Applications 15** (2017), pag. 51 – 82

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33. N. Papageorgiou, V. D. Rădulescu: *Multiplicity theorems for nonlinear nonhomogeneous Robin problems*, **Revista Matematica Iberoamericana 33** (2017), pag. 251 – 289

34. N. Papageorgiou, V. D. Rădulescu: *Periodic solutions for time-dependent subdifferential evolution inclusions*, **Evolution Equations and Control Theory 6** (2017), pag. 277 – 297

35. N. Chorfi, V. D. Rădulescu: *Small perturbations of elliptic problems with variable growth*, **Appl. Math. Letters 74** (2017), pag. 167 – 173

36. B. Ge, V. D. Rădulescu, J. Zhang: *Infinitely many positive solutions of fractional boundary value problems*, **Topological Methods in Nonlinear Analysis 49** (2017), pag. 647 – 664

37. N. Papageorgiou, V. D. Rădulescu: *Asymmetric, noncoercive, superlinear $(p, 2)$-equations*, **Journal of Convex Analysis 24** (2017), pag. 769 – 793

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39. G. Afrouzi, V. D. Rădulescu, S. Shokooh: *Multiple solutions of Neumann problems: an Orlicz-Sobolev space setting*, **Bull. Malaysian Math. Sci. Soc. 40** (2017), pag. 1591 – 1611

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41. F. Enescu, Y. Yao: *On the Frobenius complexity of determinantal ideals*, **J. Pure Appl. Alg. vol 222** (2018) 414–432

42. M. Aprodu, G. Farkas, A. Ortega: *Minimal resolutions, Chow forms of K3 surfaces and Ulrich bundles*, **Journal für die reine und angew. Mathematik, 730** (2017), pag. 225 – 250

43. M. Aprodu, E. Sernesi: *Excess dimension for secant loci in symmetric products of curves*, **Collectanea Math., 68:1** (2017), pag. 1 – 7

44. M. Fulger, B. Lehmann: *Zariski decompositions of numerical cycle classes*, **J. Algebraic Geom. 26** (2017), 43–106.

45. M. Fulger, B. Lehmann: *Positive cones of dual cycle classes*, **Algebr. Geom. 4** (2017), no. 1, 1–28.

46. M. Fulger, B. Lehmann: *Kernels of numerical pushforwards*, **Adv. Geom. 17** (2017), no. 3, 373–378.

47. M. Maican: *On two moduli spaces of sheaves supported on quadric surfaces*, **Osaka Journal of Mathematics 54** (2017), pag. 323 – 333

48. M. Jardim, M. Maican, A. Tikhomirov: *Moduli spaces of rank* 2 *instanton sheaves on the projective space*, **Pacific Journal of Mathematics 291** (2017), pag. 399 – 424

49. S. Cappell, L. Maxim, J. Schürmann, J. Shaneson, S. Yokura: *Characteristic classes of symmetric products of complex quasi-projective varieties*, **J. Reine Angew. Math. 728** (2017), pag. 35 – 63

50. Y. Liu, L. Maxim: *Spectral pairs, Alexander modules, and boundary manifolds*, **Selecta Math. (N.S.) 23** (2017), pag. 2261 – 2290

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58. R. Diaconescu: *Implicit Kripke semantics and ultraproducts in stratified institutions*, **Journal of Logic and Computation, 27(5)** (2017), pag. 1577 – 1606

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61. A. Sipoş: *Effective results on a fixed point algorithm for families of nonlinear mappings*, **Annals of Pure and Applied Logic, 168** (2017), pag. 112–128.

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71. D. Beltiţă, A. Zergane: *Amenability and representation theory of pro-Lie groups.* **Math. Z. 286** (2017), no. 1-2, 701–722.

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3. G. Paşa: *An Instability Phenomenon in Hele-Shaw Displacements*, **Journal of Mathematics Research, 9** (2017), pag. 14-24, doi:10.5539/jmr.v9n6p14.

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2. V. Ursu: *On remarks of about some classes of generalized solvable loops*, **Book of Abstracts**, The 25rd Conference on Applied and Industrial Mathematics — CAIM 2017 (September 14-17, 2017, Iaşi, România.), p. 94.

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7. H. Mukaidani, M. Unno, H. Xu, V. Drăgan: *Gain-Scheduled Nash Games with H_∞ Constraint for Stochastic LPV Systems*, **IFAC-PapersOnLine, Volume 50, Issue 1,** The 20th IFAC World Congress, July 2017, Toulouse, France, editori: J. A. De La Puente, D. Peaucelle, editura ELSEVIER, (2017), pag. 1478– 1483, ISSN:2405-8963

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12. D. T. Vuza, M. Vladescu: *Platform for monitoring the temperature of power LED junction by using the embedded protection diode*, **Electronics, Computers and Artificial Intelligence (ECAI), 2016 8th International Conference on**, 8th International Conference on Electronics, Computers and Artificial Intelligence ECAI 2016, Ploiesti, Romania, 30 iunie 2016 - 2 iulie 2016, editori: N. Bizon, N. Paraschiv, IEEE (2017), pag. 1 - 6, ISBN: 978-1-5090-2047-8

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2. V. Drăgan, A. M. Stoica, T. Morozan: *A Criterion for Robust Stability with Respect to Parametric Uncertainties Modeled by Multiplicative White Noise with Unknown Intensity, with Applications to Stability of Neural Networks*, **System Modeling and Optimization**, editori: Lorena Bociu, Jean-Antoine Desideri, Abderrahmane Habbal, editura Springer Nature, (2017), pag. 252 – 262, ISBN:978-3-319-5579

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5. A. Marcu, M. Leordeanu: *Object Contra Context: A Local - Global Approach to Semantic Segmentation in Aerial Images*, **AAAI 2017 (Rang A+) Oral Presentation at the Workshop on Artificial Intelligence for Connected and Automated Vehicles, San Francisco, USA**.

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5.1 In străinătate

1. L. Beznea, A. Gheondea, P. Hästö, C. Joiţa, A. Rasila, M. Vuorinen: *Special Issue: Trends in Modern Analysis*, Complex Analysis and Operator Theory **11**, Issue 8 (2017), ISSN: 1661-8254

2. R. Diaconescu, M. Coniglio: *Universal Logic and Computation.* Special issue of Journal of Logic and Computation to celebrate Jean-Yves Beziaus 50th birthday, Oxford University Press (2017), pag. 1677 – 1870 ISSN: 0955-792X

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1. L. Beznea, V. Brinzănescu, M. Iosifescu, D. Timotin: *Proceedings of The Eighth Congress of Romanian Mathematicians*, REV. ROUMAINE MATH. PURES APPL. **62**, No. 1 (2017), Editura Academiei.

2. M. Aprodu, M. Vlădoiu: *Volum omagial pentru Dorin Popescu, cu ocazia împlinirii a 70 de ani*, Bull. Soc. Math. Roumanie (2017), ISSN 1220–3874

3. Ph. Jaming, A. Hartmann, K. Kellay, S. Kupin, G. Pisier, D. Timotin: *Harmonic Analysis, Function Theory, Operator Theory, and their Applications*, Theta (2017), 267 pag. ISBN: 978-606-8443-08-9.

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Notă Statistica de mai sus nu include citările domnilor: *Cristian Sminchişescu* şi *Marius Leordeanu*.

7 Premii

7.1 Premiile Academiei Române

Premii acordate în 2017 pentru lucrări din 2015

1. M. Cipu: Premiul Academiei Române
2. L. Păunescu: Premiul Academiei Române

7.2 Alte premii

- R. Răsdeaconu: Premiu in valoare 4000USD oferit de Vanderbilt University (Shanks Endowment) pentru organizarea conferinţei "The Topology of Real Algebraic Varieties: Deterministic and Random Aspects", Shanks Workshop, March 11-12, 2017, Vanderbilt University.
- D. Costea, A. Marcu, E. Slusanschi, M. Leordeanu: *Creating Roadmaps in Aerial Images With Generative Adversarial Networks and Smoothing-Based Optimization*, **Best Paper Award - UAVision Workshop, International Conference on Computer Vision, Venice, 2017**.
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8 Conferinţe

8.1 Organizări de conferinţe

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   http://math.univ-ovidius.ro/sna/edition.aspx?itemID=12
2. A. L. Agore: *Brauer groups, Hopf algebras and monoidal categories*, University of Turin, Italy, 24-27 Mai 2016
   http://homepages.vub.ac.be/ hopfalgb/Steffest/welcome.html
3. M. Staic: Special session on *Cohomology, Deformations, and Quantum Groups* at the AMS meeting at SUNY at Buffalo, Buffalo NY, September 16-17 2017

4. R. Stavre: *The 37-th Caius Iacob Conference on Fluid Mechanics and its Technical Applications*, Bucharest, November 16-17, 2017
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5. L. Beznea, M. Cipu: *The Second Romanian-Turkish Mathematics Colloquium*, Istanbul, October 25-29, 2017
http://math.gsu.edu.tr/2017RT.html

6. L. Beznea: *Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society*, September 16-19, 2017, Constanta
http://imar.ro/ imar/2017/DFG/description.php.html

7. L. Beznea: *Atelier de travail en stochastique et interfèrences avec EDP*, September 13-14, 2017
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8. L. Beznea: Organizarea seriei de conferinţe lunare IMAR,
http://imar.ro/organization/activities/imarLectures.php

9. M. Pascu: *The 13th international workshop on differential geometry and applications*, Ploieşti, September 26-28, 2017
http://www.imar.ro/ imar/2017/Talks/Workshop

10. L. Ignat, L. Maxim, A. Măcinic: *Workshop for Young Researchers in Mathematics*, 7th Edition, 18/05/2017-19/05/2017. IMAR, Bucharest, Romania

11. L. Ignat: *Happy PDEs*, 8-9 decembrie 2016, IMAR, Bucharest, Romania

12. M. Aprodu, A. Constantinescu: *Instruments of Algebraic Geometry*, Bucuresti, 11-22 Septembrie 2017
iag.math.fu-berlin.de

13. M. Fulger: *Mini-Workshop: Positivity in Higher-dimensional Geometry: Higher-codimensional Cycles and Newton–Okounkov Bodies*, Oberwolfach, Germany, 17 Sep - 23 Sep 2017
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16. L. Maxim: Oberwolfach Mini-Workshop: *Interactions between low-dimensional topology and complex algebraic geometry*, Oberwolfach, Germany, 22-28 Octombrie 2017
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17. C. Raicu: *A View Toward Algebraic Geometry, in honor of the 70th birthday of David Eisenbud*, at the Harbor View Hotel, Martha's Vineyard, May 2017.
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18. R. Răsdeaconu: *The Topology of Real Algebraic Varieties: Deterministic and Random Aspects* - Shanks Workshop, Vanderbilt University, Nashville, TN, USA, 10-11 martie, 2017
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19. V. Paşol, A. Popa: *Fifth Bucharest Number Theory Day,* Bucharest, 10-11 iulie 2017
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20. A. Popa: *Automorphic forms and L-functions*, sectiune a *Joint International Meeting of the German and Romanian Mathematical Societies*, Constanta, 16-19 septembrie 2017
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21. L. Leuştean: *International Workshop on Graphs, Networks and Digital Humanities*, Universitatea din Bucureşti, 09-11.10.2017,
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24. F. Rădulescu: *Workshop in operator Algebras and Sofic Groups*, IMAR, Bucharest, Septembrie 2017
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28. C. Vîlcu: *The 13th International Conference on Discrete Mathematics: Discrete Geometry and Convex Bodies*, Bucureşti, 4-7 septembrie 2017,
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29. C. Sminchisescu: *Neural Information Processing Systems*, NIPS 2017

30. C. Sminchisescu: *IEEE Conference on Computer Vision and Pattern Recognition CVPR 2017*

31. C. Sminchisescu: *International Conference on Machine Learning*, ICML 2017,

32. C. Sminchisescu: *Artificial Intelligence and Statistics AISTATS 2017*

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8.2 Conferinţe susţinute

1. M. Cipu: *Tomografie pentru matematicieni (sănătoşi)*, Univ. Ovidius Constanţa, 5 mai 2017

2. M. Cipu: *Perfecţiunea nu există (în lumea cuboizilor)*, Univ. Ovidius Constanţa, 6 mai 2017

3. M. Cipu: *Computer-aided solution of a Diophantine equation*, Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society, Constanţa, 16–19 septembrie 2017

4. M. Cipu: *A new approach to the study of $D(-1)$-quadruples*, Workshop on Analytic Number Theory and Related Areas, RIMS Kyoto, 31 octombrie–1 noiembrie 2017

5. S. Burciu: *Müger centralizer for representations of factorizable Hopf algebras*, Brussels Hopf Algebra workshop, 28 - 30 August 2017.

6. A.L. Agore: *On the category of (Poisson) Hopf algebras*, Conference for young researchers in homotopy theory and categorical structures, Max Planck Institut für Mathematik, Bonn, Germany - February 13 - 15, 2017.

7. A.L. Agore: *Bicrossed descent theory for groups. Applications*, 7th European Congress of Mathematics, Technische Universität Berlin, Germany - July 18 - 22, 2016.

8. A.L. Agore, *Galois theory for Lie algebras*, Workshop on Hopf algebras and related topics, University of Turin, Italy - January 21-22, 2016.

9. L. Leuştean: *Proof mining in convex optimization and nonlinear analysis*, Seminário de Lógica Matemática (SLM), Universidade de Lisboa, 20.10.2017.

10. A. Popa: *On the trace formula for Hecke operators*, Fifth Bucharest Number Theory Day, IMAR, 10-11 iulie

11. A. Popa: *On a generalization of Ramanujan's congruence*, Workshop for Young Researchers in Mathematics, 7th edition, IMAR, 17-20 mai 2017

12. N. Bonciocat: *Primality, Irreducibility and Separability*, în cadrul conferinţei *Workshop in Geometry and PDE's*, 13-14 iunie 2017, Universitatea de Vest din Timişoara.

13. N. Bonciocat: *Using prime numbers in attempts to understand polynomials*, în cadrul conferinţei *Fifth Bucharest Number Theory Day*, 10-11 iulie 2017, IMAR, Bucureşti.

14. M. Cimpoeaş: *Gröbner-nice pairs of ideals*, Workshop for Young Researchers in Mathematics, Bucureşti, România, 17-20 mai 2017.

15. M. Cimpoeaş: *A class of square-free monomial ideals associated to two integer sequences*, Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society, Constanţa, România, 16-19 septembrie 2017.

16. I. Beltiţa: *Quasdiagonality of C^*-algebras of solvable Lie groups*– Barcelona Conference on C^*-Algebras: Structure, Classifications and Dynamics, 19–23 iunie 2017, CRM Barcelona.

17. C. Ionescu: *About almost Cohen-Macaulay modules*, Research Days in Commutative Algebra and Combinatorics, Messina, 23-25 Mai 2017.

18. C. Năstăsescu: *Comunicare despre omul, matematicianul şi mentorul Nicolae Popescu*, Sesiune comemorativă dedicată mentorului Nicolae Popescu, 29 iunie 2017, Institutul de Matematică "Simion Stoilow" al Academiei Române, Bucureşti.

19. D. Popescu: *Constructive solutions for polynomial equations over formal power series rings*, in Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society in partnership with the Simion Stoilow Institute of Mathematics of the Romanian Academy, September 16 - 19, 2017, Constanta.

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27. R. Stavre: *Asymptotic analysis for a general case of fluid-structure interaction model*, The 37-th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, Bucharest, November 16-17, 2017.

28. S. Papadima: *Moduli spaces and finiteness issues in deformation theory*, FMI Bucharest, 25 iun 2017.

29. C. Czarnota, N. Jacques, S. Mercier, A. Molinari, C. Făciu: *Spall fracture prediction based on a multi-scale approach for the behavior of porous ductile materials accounting for microinertia*, International Conference on Dynamic Fracture of Ductile Materials (DYMAT 23rd Technical Meeting), Trondheim, Norway, 12-14 September 2017.

30. G. Paşa: *On the displacement of two immiscible Oldroyd-B fluids in a 3D Hele-Shaw cell*, The 13-th International Workshop on Differential Geometry and its Applications, Petroleum-Gas University, Ploiesti, 26-28 September 2017.

31. D. Polişevschi: *Model of two-temperature convective transfer in porous media*, The 37th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, 16-17 November 2017, Bucharest, Romania

32. G. Paşa: *Non-Newtonian effects in three-layer Hele-Shaw displacements*, The 37-th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, INCAS, Bucharest, 16-17 November 2017.

33. L. Beznea: Invariant, super and quasi-martingale functions of a Markov process, *Probability and Analysis*, Bedlewo, Polonia, 15-19 mai, 2017

34. L. Beznea: An introduction to Markov processes associated to nonlinear and nonlocal operators, *BCAM - Basque Center for Applied Mathematics*, Bilbao, Spania, 29 mai-2 iunie 2017

35. L. Beznea: Irreducible recurrence, ergodicity, and extremality of invariant measures for resolvents, *Japanese-German Open Conference on Stochastic Analysis 2017*, Kaiserslautern, Germania, 4-8 septembrie 2017

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37. I. Cîmpean: *On the nonlinear Schrodinger equation with white noise dispersion on graphs*, Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society, Constanta, 16-19 septembrie, 2017.

38. I. Cîmpean: *On the nonlinear Schrodinger equation with white noise dispersion on graphs*, Workshop for Young Researchers in Mathematics, Bucuresti, 17-20 mai, 2017.

39. C. Joiţa: *Finite coverings of complex spaces by connected Stein open sets*, Complex Analysis and Geometry - XXIII, Levico T. (Trento), iunie 12-15, 2017.

40. E. Mihăilescu: *Iterated function systems with overlaps*, Univ. Lille, France, March 2017.

41. E. Mihăilescu: *Smale skew products over countable alphabets and applications in number theory*, Conference on Thermodynamic Formalism and Applications in Number Theory, Univ. Bremen, Germany, July 2017.

42. E. Mihăilescu: *Dynamics of skew products and applications to continued fractions* Fractal geometry and dynamics, Institut Mittag-Leffler, Stockholm, Sweden, Dec 2017.

43. V. Drăgan: *On the minimization of the mean square of the final value of an output of a linear stochastic controlled system*, International Conference on Applied Modeling in Economics, Finance and Social Sciences (AMEFSS), 27-31 August, 2017, Hisar, Bulgaria.

44. V. Drăgan: *Exponential Stability in Mean Square of Stochastic Linear Systems Modeled by Singularly Perturbed Itô Differential equations with Markovian Jumping*, International Conference Recent Trends in Pure and Applied Mathematics (TREPAM) 2017, 31 Iulie-4 August, Alba Iulia, Romania.

45. L. Ignat: *Kuramoto-Sivashinsky equation on a strar-shaped tree. A controllability result*, Nonlinear Partial Differential Equations on Graphs, Oberwolfach, 18-24 June 2017, Germany

46. L. Ignat: *Asymptotic behaviour for fractional diffusion- convection equations*, Workshop on Nonlinear Analysis on the Occasion of the 65th Birthday of Patrizia Pucci, May 25-27, 2017, Babes-Bolyai University, Cluj-Napoca

47. L. Ignat: *Asymptotic behaviour for fractional diffusion- convection equations*, International Conference on Elliptic and Parabolic Problems, Gaeta, 22-26 May 2017, Gaeta, Italy

48. L. Ignat: *Flash Dispersion on Trees*, French-American Conference on Nonlinear Dispersive PDEs June 12 - 16, 2017, CIRM, France

49. L. Ignat: *Asymptotic behaviour for fractional diffusion-convection equations*, Workshop on Pure and Applied Analysis, Univ. of Craiova, 21/10/2017

50. L. Ignat: *Asymptotic behaviour for fractional diffusion- convection equations*, Deusto University, 14/11/ 2017, Bilbao, Spain

51. R. Purice: *Low lying spectral gaps induced by slowly varying magnetic fields*, Workshop: Spectral Theory and Mathematical Physics, Metz, 16-18 May, 2017.

52. R. Purice: *Spectral analysis of the bottom of the spectrum of 2-dimensional periodic Hamiltonians in slowly varying magnetic fields*, Seminarul Departamentului de Matematica, Universitatea Aalborg, 27 Octombrie, 2017.

53. R. Purice: *Peierls' substitution at the bottom of the spectrum*, Seminarul Departamentului de Matematica, Universita de Chile, Santiago de Chile, 15 Noiembrie, 2017.

54. A. Constantinescu: *Castelnuovo-Mumford Regularity vs. Virtual Cohomological Dimension* , SIAM Conference on Applied Algebraic Geometry - GIT Atlanta (USA), august 2017.

55. A. Constantinescu: *Linear syzygies, hyperbolic Coxeter groups, and regularity*, Encounter in Topology 'n Algebra, Catania (Italy), iunie 2017.

56. A. Constantinescu: *Castelnuovo-Mumford Regularity Vs. Virtual Cohomological Dimension*, British Mathematics Colloquium - Algebra Workshop, Durham (UK), aprilie 2017.

57. A. Constantinescu: *Linear syzygies, hyperbolic Coxeter groups, and regularity*, Scoala Nationala de Algebra, Bucuresti, septembrie 2017.

58. A. Constantinescu: *Linear syzygies and hyperbolic Coxeter groups*, Berlin-Leipzig Seminar on Algebra, Geometry and Combinatorics - MPI Leipzig, octombrie 2017.

59. A. Constantinescu: *Linear syzygies and Coxeter groups*, GTM Seminar Politecnico di Torino, Italia, noiembrie 2017.

60. A. Constantinescu: *Linear syzygies and hyperbolic Coxeter groups*, CMS Winter Meeting - University of Waterloo, Canada , decembrie 2017.

61. V. Rădulescu: *Two classical results with lack of monotonicity*, "James Serrin: from His Legacy to the New Frontiers", University of Perugia, 30 January-3 February 2017.

62. V. Rădulescu: *Principes variationnels associés à quelques problèmes d'équilibre*, "Le Premier Congrès International sur la Modélisation et le Calcul Scientifique en Ingénierie Mathématiques", Marrakech, 17-20 Avril 2017.

63. V. Rădulescu: *Nonhomogeneous problems with singular weights*, "Fourth Conference on Recent Trends in Nonlinear Phenomena", University of Messina, 18-20 September 2017.

64. V. Rădulescu: *Maximum principle and Keller-Osserman theorem revisited*, Faculty of Applied Mathematics, AGH University of Science and Technology, Krakow, 8 November 2017.

65. V. Rădulescu: *How much monotonicity is necessary in nonlinear PDEs?*, Faculty of Mathematics and Applied Physics, Rzeszow University of Technology, Rzeszow, 17 November 2017.

66. V. Rădulescu: *Nonlinear eigenvalue problems: old and new*, Chair of Optimization and Control, Jagiellonian University, Krakow, 23 November 2017.

67. A. Zărnescu: *On the dynamical emergence of nematic defects* , Mathematical Congress of the Americas, Montreal, July 2017

68. A. Zărnescu: *Hyperbolic-parabolic models for nematic hydrodynamics*, Conference on Elliptic and Parabolic Problems, Gaeta, Italy, May 2017

69. A. Zărnescu: *Recent advances in the variational aspects of the Landau-de Gennes theory of liquid crystals* Phase Transitions Models Workshop, Banff, Canada, May 2017

70. F. Ambro: *Curves with ordinary singularities*, The Second Turkish-Romanian Mathematics Colloquium, Galatasaray University, Istanbul, October 27 2017

71. F. Ambro: *Curves with ordinary singularities,* Instruments of Algebraic Geometry, Bucharest, September 21 2017

72. F. Ambro: *Curves with ordinary singularities,* Stability, Boundedness and Fano varieties, BICMR, Beijing, August 29 2017

73. F. Ambro: *Weakly log canonical varieties,* Conference on Birational Geometry, Simons Foundation, New York, August 22 2017

74. F. Ambro: *Complements I, II,* Workshop on Singularities, Linear Systems, and Fano Varieties, NCTS Taipei, April 14 2017

75. C. Anghel: *Freeness, extendability and arrangements* , X. International Symposium: Qunatum Theory and Symmetries, Varna, 19-25 June 2017.

76. C. Anghel: *Freeness of arrangements and extendability of bundles* , International Conference on Recent Trends in Pure and Applied Mathematics, Alba-Iulia, 31 July-4 August 2017.

77. C. Anghel: *Special bundles and superstrings* , The 25-th Conference on Applied and Industrial Mathematics - CAIM 2017, Iaşi, 14-17 September 2017.

78. O. Păsărescu: *On the Riemann Hypothesis: an aproach using Algebraic Geometry and Non-standard Analysis*, International Conference on Didderential Geometry, UPG Ploiesti, Romania, 26-29 septembrie 2017.

79. D. Matei: *Analytic and topological torsion*, University of Luxembourg, Geometry Seminar, January 2017.

80. V. Brinzănescu: *Moduli of vector bundles on ruled surfaces*, Commutative Algebra meeting Algebraic Geometry- A conference in honor of Dorin Popescu's 70th birthday, Bucuresti, Iunie 23-28.

81. M. Aprodu: *Ulrich bundles on projective surfaces*, Séminaire Méditerranéen de Géométrie Algébrique, Univ. Nice, 16 – 17 martie 2017

82. M. Aprodu: *Syzygies and secant loci*, Modern Algebra and Classical Geometry, Trento, 21 – 24 iunie 2017

83. M. Aprodu: *Ulrich bundles on projective surfaces*, Commutative Algebra meeting Algebraic Geometry, Universitatea din Bucureşti, 23 – 28 iunie 2017

84. M. Aprodu: *Minicourse on syzygies*, The 25th National School of Commutative Algebra, Universitatea din Bucureşti, 3 – 9 septembrie 2017

85. M. Aprodu: *Green's conjecture and vanishing of Koszul modules*, North German Algebraic Geometry Seminar (NoGAGS), Humboldt Univ. Berlin, 16 – 17 noiembrie 2017

86. M. Fulger: *Seshadri constants for curve classes*, **Commutative Algebra meeting Algebraic Geometry: Dorin Popescu's 70th birthday**, Bucureşti, 24 Iun - 27 Iun 2017.

87. M. Fulger: *Seshadri constants for curve classes*, **Positivity in Algebraic and Complex Geometry**, Edinburgh, 24 Apr - 28 Apr 2017.

88. M. Fulger: *Seshadri constants for curve classes*, **Basel–EPFL birational geometry meeting**, Basel, Mar 2017.

89. L. Maxim: *Alexander invariants of very affine varieties*, la conferinta "Workshop for Young Researchers in Mathematics", Bucharest, Romania, 17-21 mai 2017.

90. C. Raicu: *Homological invariants of determinantal thickenings*, Instruments of Algebraic Geometry, Bucharest, September 2017.

91. C. Raicu: *Regularity of determinantal thickenings*, The Prospects for Commutative Algebra, Osaka, July 2017.

92. C. Raicu *Regularity of determinantal thickenings*, Commutative Algebra meeting Algebraic Geometry, University of Bucharest, June 2017.

93. C. Raicu *Regularity and cohomology of determinantal thickenings*, Spring Lecture Series, University of Arkansas, March 2017.

94. C. Cobeli: *Experimente matematice*, A XXI-a Conferinţă Anuală a Societăţii de Ştiinţe Matematice din România, Botoşani, 11-14 mai 2017.

95. C. Cobeli, A. Zaharescu: *Order and disorder in integer sequences*, Sesiune comemorativă dedicată mentorului Nicolae Popescu, Bucureşti, Iunie 29, 2017.

96. C. Cobeli: *On the numbers behind some beautiful pictures*, Fifth Bucharest Number Theory Day, July 10-11, 2017.

97. R. Diaconescu: *Specificare şi verificare bazate pe logică*, Academia Română (secţia de ştiinţa şi tehnologia informaţiei), September 2017.

98. R. Diaconescu: *Mathematical Foundations for Conceptual Blending* (invited talk), Working Formal Methods Symposium, Bucharest, Romania, July 2017.

99. F. Nicolae: *On the imaginary quadratic number fields with class group of exponent 4*, Bucharest Number Theory Day, Iunie 2017.

100. F. Nicolae: *On Artin's L-functions*, DMV-Romanian Mathematical Society Meeting, Constanţa, Septembrie 2017.

101. F. Nicolae: *On Artin's L-functions*, Oberseminar Computer Algebra und Zahlentheorie, Universität Paderborn, Noiembrie 2017.

102. R. Gaba: *On a generalization of Ramanujan's congruence II (Cohomological aspects)*, Workshop for Young Researchers in Mathematics - 7th edition, May 17-20, 2017.

103. R. Gaba: *A generalization of a congruence of Ramanujan*, Fifth Bucharest Number Theory Day, July 10-11, 2017.

104. V. Paşol: *Character sums and multiple Dirichlet series*, Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society, Constanta 16-19 sept 2017

105. M. Prunescu: *Homomorphisms of abelian p-groups and p-automatic sequencesi*, The 13th International Conference on Discrete Mathematics: Discrete Geometry and Convex Bodies, Bucharest (September 4 7, 2017).

106. A. Sipoş: *Proof mining in convex optimization*, PhDs in Logic IX, Bochum, Germania, 2-4 mai 2017.

107. A. Sipoş: *Representable functions in Moisil logic*, FROM 2017, Bucureşti, România, 5-8 iulie 2017.

108. A. Sipoş: *Proof mining in convex optimization*, Logic Colloquium 2017, Stockholm, Suedia, 14-20 august 2017.

109. A. Sipoş: *Playing with the logic of Moisil: nuances, games and representations*, BuCal 2017, Bucureşti, România, 25-27 septembrie 2017.

110. D. Beltiţă: *Reproducing kernels on infinite-dimensional manifolds*, Congreso Bienal de la Real Sociedad Matemática Española, 30 ianuarie - 3 februarie 2017, Facultad de Educación, Universidad de Zaragoza, Spania.

111. D. Beltiţă: *Quasidiagonality of C^*-algebras of generalized $ax + b$ groups*, "XXXVI Workshop on Geometric Methods in Physics", Białowieża, Polonia, 2–8 iulie 2017.

112. D. Beltiţă: *Modular theory and Poisson geometry*, Seminarul de Fizică Matematică, Universitatea din Białystok, Polonia, 21 septembrie 2017.

113. A. Gheondea: *Invariant positive semidefinite kernels*, Universitatea Politehnica, Timişoara, May 17-19, 2017.

114. A. Gheondea: *Symmetry vs Conservation Laws in Dynamical Quantum Systems*, Institut Henri Poincaré, Paris, Worshop "Operator Algebras and Quantum Information Theory", Sept. 11–15, 2017.

115. A. Gheondea: *Weak solutions for a degenerate elliptic problem*, AGH University of Science and Technology, Conference "Spectral Theory and its Applications", Krakow, May 30, June 2, 2017.

116. A. Gheondea: *Operator models of locally C^*-modules*, Université de Galatasaray, Istanbul, "The second Roumanian-Turkish Mathematics Colloquium", Oct. 25–29, 2017.

117. F. Rădulescu: *Operator Algebras and Number Theory*, Joint International Meeting of the German Mathematical Society and the Romanian Mathematical Society, Constanţa, Septembrie 2017.

118. M. Popa: *Applications of non-commutative functions in free probability*, CMI Toulouse, Octombrie 2017

119. M. Popa: *Permutations of entries and asymptotic freeness for some classes of random matrices*, Bazos Seminar of Modern Analysis, Houston, Noiembrie 2017

120. D. Timotin: *Szegö type theorems for truncated Toeplitz operators*, Great Plains Operator Theory Symposium, Fortworth, 22–26 mai 2017.

121. D. Timotin: *A preorder relation for contractions*, AMS Spring Central Sectional Meeting, Bloomington, 1–2 aprilie 2017.

122. D. Timotin: *Beyond truncated Toeplitz operators*, Workshop on Operator Theory and Complex Analysis, Lisabona, 3–6 iulie 2017.

123. D. T. Vuza, R. Frosch, H. Koeberl, I. Rusi Shkupi, M. Vlădescu: *Quantitative Theory of Signal Inversion in RFID*, 3rd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, Bucuresti, Romania, 12 octombrie 2017 - 14 octombrie 2017.

124. D. T. Vuza, M. Vlădescu: *Studies on the Transient, Continuous and Pulsed Regimes of High Power LEDs*, 3rd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, Bucuresti, Romania, 12 octombrie 2017 - 14 octombrie 2017.

125. C. Sminchisescu: Invited talk, INRIA, Franta.

126. C. Sminchisescu: Invited speaker, Deep Learning Symposium, Stockholm, Suedia.

127. C. Sminchisescu: Invited speaker, IEEE ICCV 2017, Manifold Learning: from Euclid to Riemann, Italia.

128. C. Sminchisescu: Invited talk: Google Research, Elvetia.

129. F. Nichita: *poster*, The 13-th International Workshop on Differential Geometry and its Applications, UPG Ploiesti, 26–28 septembrie, 2017.

130. D. Cheptea: *Goldman Lie algebra and its role in the theory of knots and 3-dimensional manifolds*, Workshop for Young Researchers in Mathematics, 7th edition, Bucureşti, România, May 17-19, 2017 (expunerea sustinută pe 18 mai)

131. A. Otiman: *Twisted cohomology of LCS solvmanifolds*, Cortona, Italia, 2. 05. 2017.

132. A. Otiman: *Twisted cohomology of LCK manifolds*, Marburg, Germania, 11.10.2017.

133. A. Otiman: *Twisted cohomology of LCK manifolds*, Regensburg, Germania, 25.10.2017.

134. L. David: *Twist, elementary deformation and the KK-correspondence in generalized complex geometry*, Workshop for Young Researchers in Mathematics, IMAR, 17-20 mai 2017.

135. L. David: *Invariant generalized complex structures on Lie groups*, Geometry and PDE's, Universitatea de Vest din Timisoara, 13-14 iunie 2017.

136. A.Măcinic: *Freeness and arrangements of hyperplanes*, Scoala Nationala de Algebra (http://math.univ-ovidius.ro/sna/edition.aspx?itemID=12)). September 3 - September 9, 2017, FMI, Bucharest.

137. C. R. Popescu: *Geometrical and topological aspects of partial configuration spaces* Bucureşti, WYRM, 17 – 20 Mai.

138. C. Vîlcu: *Folding, unfolding, and flattening*, Discrete Geometry Fest 2017, Budapesta, 15-19 mai 2017.

139. C. Vîlcu: *On the geometry of Alexandrov surfaces*, Discrete Geometry and Convexity - Bárány 70, Budapesta, 19-23 iunie 2017.

140. C. Vîlcu: *Envelopes of α-sections*, The 13th International Conference on Discrete Mathematics: Discrete Geometry and Convex Bodies, Bucureşti, 4-7 septembrie 2017.

141. S. Moroianu: *On sums of squared norms of holomorphic functions*, AIC University Iasi, Sep. 2017.

142. L. Ornea: *The canonical foliation of a Vaisman manifold*, Université Libre de Bruxelles, februarie 2017.

143. L. Ornea: *New results in LCK geometry*, Higher School of Economics, Moscova, aprilie 2017.

144. L. Ornea: *New results in LCK geometry, I, II*, Univ. din Firenze, iunie 2017.

145. R. Pantilie, *Morphisms in differential geometry*, IMAR Monthly Lectures, April 2017.

146. M. Pilca: *Holonomy Groups of Locally Conformally Kähler Metrics*, Workshop Femei in Geometrie, Max Planck Institut, Bonn, 4 aprilie 2017.

147. M. Pilca: *Kähler metrics in a conformal class*, Seminarul de Geometrie Diferentiala, Universitatea Greifswald, 28 iunie 2017.

148. M. Pilca: *Introduction to Locally Conformally Kähler Manifolds*, scoala de toamna, Universitatea Marburg , 10-13 octombrie 2017.

149. I. Popescu: *Optimal alignments and Tracy-Widom distribution*, Constanţa (Oct 2017)

150. I. Popescu: *Deterministic Distance couplings of Brownian motions on Manifolds*, Bucharest (Sept. 13-14, 2017)

151. I. Popescu: *Deterministic Distance couplings of Brownian motions on Manifolds*, Bonn, Spet 3-8

152. I. Popescu: *Deterministic Distance couplings of Brownian motions on Manifolds*, Luxembourg, July, 10–14, 2017.

9 Alte activităţi

9.1 Conducere granturi

1. S. Burciu: Director al grantului PN-III-P4-ID-PCE-2016-015 nr 54 din 12/07/2017.

2. N. Bonciocat: Responsabil temă de cercetare în echipa *Equations diophantiennes* în cadrul GDRI ECO-Math (Groupement de Recherche International en Matématiques visant l'Europe Centrale et Orientale - Director proiect: Radu Purice)

3. A. L. Agore: Grant postdoctoral, Fonds voor Wetenschappelijk Onderzoek - Vlaanderen (FWO), Belgia, Octombrie 2014 - prezent.

4. D. Ionescu-Kruse: *A qualitative description of travelling shallow water waves with constant vorticity*- proiect in cadrul Groupement de Recherche International (GDRI)
Partener: Denys Dutykh, LAMA, UMR 5127 CNRS, Université Savoie Mont Blanc, Franţa.

5. D. Ionescu-Kruse: Facultatea de Matematică, University of Vienna, Austria, 22/06/2017 - 21/07/2017.

6. D. Ionescu-Kruse: Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, în cadrul programului "Nonlinear water waves", 05/08/2017 - 19/08/2017

7. L. Beznea: Director de proiect al grantului Idei, PN-III-P4-ID-PCE-2016-0372, din programul PNCDI III, 2017-2019.

8. E. Mihăilescu: Director proiect PN III-P4-ID-PCE-2016-0823, "Dinamica si Teorie Ergodica Diferentiabila", de la UEFISCDI.

9. E. Mihăilescu: Grant "Ergodic theory on fractals", Institut des Hautes Études Sciéntifiques, Bures-sur-Yvette, France, 2 luni 2017.

10. E. Mihăilescu: Grant Institut Mittag-Leffler, Stockholm, Sweden, 4 saptamani, Fall 2017.

11. L. Ignat: PN-II-RU-TE- 2014-4-0007, CNCS-UEFISCDI

12. R. Purice: Le Groupement de Recherche International ECO-math - GDRI

13. V. Rădulescu: *Qualitative and numerical analysis of nonlinear problems on fractals*, Grant CNCS Idei (CNCS PCE-47/2011)

14. V. Rădulescu: *Sisteme de asigurare a securitatii informatiei bazate pe modele neliniare de analiza a fluxului informational.* Grant CNCS (CNCS PN-II-PT-PCCA-2013-4-0614)

15. V. Rădulescu: *Analiza calitativă şi numerică a unor clase de sisteme diferenţiale anizotrope şi aplicaţii*, Grant CNCS (PN-III-P4-ID-PCE-2016-0130)

16. A. Zărnescu: Director al grantului Tinere Echipe- RO-PN-II-RU-TE-2014-4-0657 cu titlul *Simetrie, fizicalitate si aspecte de regularitate in teoria tensorilor Q a cristalelor lichide* 2015-2017

17. A. Zărnescu: Co-investigator pe grantul *Liquid crystal defects in Landau-de Gennes Theory*, grant Leverhulme, UK-2015-2017

18. L. Maxim: *Singular Spaces in Geometry and Topology*, grant cercetare, National Science Foundation (USA), 09/2013 - 08/2017.

19. L. Maxim: *Stratified spaces in geometric and computational topology and physics*, grant conferinta, National Science Foundation (USA), 2015 - 2017.

20. C. Raicu: NSF Award DMS - 1600765.

21. R. Răsdeaconu: Grant de cercetare cu titlul "Deformation techniques in real enumerative geometry and Kähler geometry" din partea "Simons Foundation", SUA (Award Number: 281266). 2013-2018.

22. R. Răsdeaconu: Grant NSF (DMS - 1711567) pentru organizarea conferinţei *The Topology of Real Algebraic Varieties: Deterministic and Random Aspects*, Shanks Workshop, March 11-12, 2017, Vanderbilt University.

23. R. Diaconescu: Director grant PN-III-P2-2.1-PED-2016-0494 - *Formal Verification of Reconfigurable Systems*

24. M. Leordeanu: Director grant ERC-2016-0007 *The Classifier Graph: A Recursive Multi-class Network for Deep Category Recognition in Images and Video*

25. M. Leordeanu: PED-2016-1842 *Automatic linguistic descriptions of objects, people and their interactions in indoor videos*

26. V. Paşol: PN-II-RU-TE-2014-4-2077 *Galois Representations and Modular Forms*

27. Ingrid Beltiţă: director al proiectului *Harmonic Analysis on Solvable Lie Groups*, grant CNCS-UEFISCDI, cod RU-TE-2014-4-0370, desfăşurat in perioada octombrie 2014-septembrie 2017.

28. C. Sminchisescu: *Metode de invatare pentru recunoasterea vizuala activa* (180 KE).

29. C. Sminchisescu: *Metode pentru recunoasterea tri-dimensionala a obiectelor* (350 KE).

30. C. Sminchisescu: *Modelarea cu acuratete a persoanelor in video* (250 KE / 550 KE).

31. C. Sminchisescu Interactiunea multi-modala om-robot pentru imbunatatirea imaginatiei la copiii cu autism (450 KE/4 ME).

32. C. Călinescu: *Collaboration Grants for Mathematicians*, Investigator principal, Simons Foundation, 2014-2019.

33. C. Călinsecu PSC-CUNY grant TRADA-48-211, Investigator principal, 2017-2018.

34. L. David: Director proiect, *Geometrii speciale si structuri asociate*, cod proiect PN-III-ID-PCE-2016-0019, 2017-2019.

35. S. Moroianu: Director proiect, *Volumul varietatilor hiperbolice si Einstein*, Grant 0330/2017, PN-III-P4-ID-PCE-2016-0330, 2017-2019.

36. L. Ornea: *Topics in LCK geometry*, Program PNCDI III, PN-III-P4-ID-PCE-2016-0065, Contract nr. 8/12.07.2017.

9.2 Activităţi în cadrul granturilor

- M. Leordeanu: *Efficient Unsupervised Object Discovery and Segmentation in Video*, DeepMind, London, September 2017.

- M. Leordeanu: *Unsupervised Object Discovery and Learning from Video*, International Summer School on Imaging for Medical Applications, July 2017.

- M. Leordeanu: *Unsupervised Learning of Objects in Video*, 1st Conference on Recent Advances in Artificial Intelligence, RAAI, June 2017.

- M. Leordeanu: *Visual Recognition Machines - When Computers Learn to See like Humans*, The 15th Congress of the Romanian Society of Neurology, Bucharest, Romania, May 2017.

- M. Leordeanu: *When AI meets Medicine*, Healthcare, Education and Research Talks Heart International Conference, Cluj-Napoca, April 2017.

9.3 Conducere doctorate

- M. Staic: Conducător doctorat - Jake Laubacher, Bowling Green State University, teza susţinută Martie 2017.
- L. Beznea: Conducător doctorat - Tatiana Ignat, IMAR, teza susţinută Noiembrie 2017.
- D. Popescu: Conducător doctorat - Z. Kosar, A. Khalid, GCU Lahore.
- E. Mihăilescu: Conducator doctorat - Rodica Marineac, IMAR.
- L. Ignat: Co-tutela impreuna cu Liviu Marin, studenta Andreea Grecu, Universitatea Bucuresti.
- R. Purice: Conducător doctorat pentru Alexandru Mustăţea, admis in 2015.
- D. Tiba: Conducător doctorat - Roxana Nicolai (Matei), IMAR,teza sustinuta Noiembrie 2017
- V.D. Rădulescu: trei doctoranzi (anul II) la universitatea din Craiova.
- A. Zărnescu: Conducator de doctorat pentru Stuart Day (2013-2017) la Universitatea Sussex, UK.
- V. Brinzanescu: un doctorand la SCOSAR (Academia Română).
- M. Aprodu: Conducător doctorat - Filip Chindea, Universitatea din Bucureşti (din octombrie 2016).
- M. Aprodu: Conducător doctorat - Laura Filimon - Universitatea din Bucureşti (din octombrie 2017).
- M. Aprodu: Conducător doctorat - Ştefan Deaconu - Universitatea din Bucureşti (din octombrie 2017)
- L. Maxim: Conducător doctorat - Eva Elduque, anul IV, University of Wisconsin-Madison (USA)
- L. Maxim: Conducător doctorat - Christian Geske, anul IV, University of Wisconsin-Madison (USA)
- L. Maxim; Conducător doctorat - Fenglin Li, anul II, University of Science and Technology of China (China)
- C. Raicu: Conducător doctorat - Michael Perlman, University of Notre Dame, începând din 2015.
- C. Raicu: Conducător doctorat - Zhao Gao, University of Notre Dame, începând din 2017.

- L. Leuştean: Conducător doctorat - Andrei Sipoş, teza susţinutăîn Noiembrie 2017.
- A. Gheondea: Conducător doctorat - S. Ay, din 2015.
- M. Popa: Conducător doctorat - Zhiwei Hao, va sustine teza in decembrie 2017.
- C. Sminchisescu Abilitare (Universitatea din Bonn, 2007), echivalata automat prin ordin MEC, 2013
- C. Sminchisescu Incadrant a 6 doctoranzi.
- L. Ornea: Conducător doctorat - Alexandra Otiman, Universitatea din Bucureşti, teza susţinută Septembrie 2017.
- L. Ornea: Conducător doctorat - Miron Stanciu, Universitatea din Bucureşti,
- I. Popescu: Conducător doctorat - Emilian Paraicu (Oct. 2017)
- I. Popescu: Conducător doctorat - Adriana Nistor (Oct. 2017)

9.4 Membru în colective editoriale

- M. Cipu: Editor la: Bulletin Mathématique de la Société des Sciences Mathématiques de Roumanie, Gazeta Matematică, Seria A
- C. Nastasescu: Editor la: Analele Universităţii din Bucureşti, Seria Matematică, Revue Roumaine des Mathématiques Pures et Appliquées, Bulletin Mathématique de la Société des Sciences Mathématiques de Roumanie, Analele Ştiinţifice ale Universităţii "Ovidius" din Constanţa, Seria Matematică, Analele Universităţii din Craiova, Seria Matematică - Informatică, Mathematica (Cluj).
- L. Beznea: Editor la: Ann. Univ. Bucureşti, Editura Univ. din Bucureşti, Advances in Pure and Applied Mathematics, De Gruyter, Revue Roumaine Math. Pures Appl., Math. Reports, (co-editor şef), Editura Academiei Romane, Proc. Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, Editura Academiei Romane
- M. Colţoiu: Editor la: Acta Math. Apulensis, Proc. Rom. Academy
- C. Ionescu: Editor la: Asia Mathematika
- C. Joiţa: Secretar stiintific al comitetului de redactie la Mathematical Reports si Revue Roumaine De Mathématiques Pures et Appliquées
- E. Mihăilescu: Editor la: Discrete and Continuous Dynamical Systems - S.
- V. Drăgan: Editor la: International Journal of Innovative Computing, Information and Control, ICIC-Express Letters, IET Control Theory and Applications, IMAJOR - Innovativity in Modeling and Analytics Journal of Research.

- V. Rădulescu: Editor la: Mathematics in Science and Engineering, Book Series, Academic Press (an imprint of Elsevier), Advances in Nonlinear Analysis (Walter de Gruyter)(editor-şef), Nonlinear Analysis: Theory, Methods & Applications, Journal of Mathematical Analysis and Applications, Complex Variables and Elliptic Equations, Boundary Value Problems, Electronic Journal of Differential Equations, de Gruyter–Versita Book Publishing Program in Mathematics, Advances in Pure and Applied Mathematics (Walter de Gruyter), Discrete and Continuous Dynamical Systems, Series S (American Institute of Mathematical Sciences), Opuscula Mathematica (Krakow University), MATHlics Research Paper Series Applied MATHematics JournaL for EconomICS, (edited by MEDAlics–Research Centre on Mediterranean Relations), Journal of Numerical Analysis and Approximation Theory (Romanian Academy), Ann. St. Univ. Ovidius Constanta, Annals of the University of Craiova - Mathematics and Computer Science Series(editor-şef).

- V. Brinzanescu: Editor şef la: Revue Roumaine Math. Pures Appl. şi Math. Rep. până la 30.06.2017.

- V. Brinzanescu: Editor la: Serdica Math J., Proc. Rom. Acad., Bull. Math.SSMR, Bull. UPB, An. Univ. Ovidius Constanta.

- M. Aprodu: Editor la: Revue Roumaine Math. Pures Appl., Math. Reports.

- L. Maxim: Editor la: *Mathematics* (open access journal).

- R. Diaconescu: Editor la: Studies in Universal Logic, book series at Springer Basel, Switzerland.

- M. Leordeanu: Editor la: Machine Vision and Applications.

- V. Timofte: Editor la: Australian Journal of Mathematical Analysis and Applications (AJMAA).

- D. Beltiţă: Editor la: Analele Ştiinţifice ale Universităţii ,,Al.I.Cuza" din Iaşi —Matematică.

- A. Gheondea: Editor la: Journal of Operator Theory, Complex Analysis and Operator Theory, Opuscula Mathematica, Journal of Function Spaces.

- F. Rădulescu: Editor la: Journal of Operator Theory, Liberthas Mathematicae.

- D. Timotin: Editor la: Journal of Operator Theory, Revue Roumaine de Mathématiques Pures et Appliquées, Mathematical Reports, Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, Matematică.

- C. Sminchisescu: Editor la: IEEE Transaction on Pattern Analysis and Machine Intelligence.

- F. Nichita: Editor la: Axioms, MDPI, Basel.

- C. Popescu: Editor la: Gazeta Matematică — Seria A, Romanian Mathematical Competitions Series.

- L. Ornea: Editor la: Bull. Math. Soc. Sci. Math. Roumanie, Math. Reports, Revue Roum. Math. Pures Appl.

- St. Papadima: Editor la: Revue Roumaine de Mathématiques Pures et Appliquées, Mathematical Reports.

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2. F. Enescu, J. Hull: *On subfield-compatible polynomials and a class of Vandermonde-like matrices*, acceptată la **Bulletin. Math. Soc. Sci. Roumanie**

3. M. Cipu, Y. Fujita, T. Miyazaki: *On the number of extensions of a Diophantine triple* acceptată la **Internat. J. Number Theory**.

4. M. Cipu: *Explicit formula for the solution of simultaneous Pell equations* $x^2-(a^2-1)y^2 = 1$, $y^2 - bz^2 = 1$ acceptată la **Proc. Amer. Math. Soc.**

5. M. Cimpoeaş: *On the Stanley depth of powers of some classes of monomial ideals*, **Bulletin of the Iranian Mathematical Society**, pag. 8

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9.7 Cooperări ştiinţifice

- Reţeaua de tip GDRI-*Eco-Math* organizată de CNRS(Franţa) în colaborare cu Academia de Ştiinţe din Ungaria şi Academia Română (2017-2020).
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- Radu Purice: cercetător invitat la Univ. Alborg(Danemarca), Univ. de Chile(Chile).
- Delia Ionescu-Kruse: cercetător invitat Univ. Viena(Austria) şi Isaac Newton Institute for Mathematical Sciences, Cambridge (Marea Britanie).
- Delia Ionescu-Kruse: in cadrul GDRI, colaborare cu Denys Dutykh, LAMA, UMR 5127 CNRS, Université Savoie Mont Blanc, Franţa.
- Ruxandra Stavre: cercetător invitat la Institute Camille Jordan UMR CNRS 5208, Saint-Etienne, Franţa.
- Dan Timotin: profesor invitat la Indiana Univ., Bloomington, SUA.
- Dan Vuza: colaborare cu firma Freaquent Frosch Electronics GmbH (Graz, Austria) pe tema sistemelor de comunicatie pentru transpondere RFID.