

**Projets effectués dans le cadre du LEA *Math-Mode*
avec publications
2008 – 2015**

1. *Cohomologie de Koszul d'une variété projective à valeurs dans un fibré en droites.*

Marian Aprodu (IMAR-Bucarest)

Johannes Nagel (Université de Bourgogne).

2008-2010

Publications:

1. Marian Aprodu, Jan Nagel: *Koszul Cohomology and Algebraic Geometry*, University Lecture Series AMS, vol. 52, 2010, ISBN-10: 0-8218-4964-6, ISBN-13: 978-0-8218-4964-4

2. *Equations aux dérivées partielles stochastiques sans viscosité.*

Ioan Lucretiu Stoica (IMAR-Bucarest & Université de Bucarest).

Bernard Saussereau (Université de Franche-Comté, Besançon)

2008-2009

Publications:

1. Bruno Saussereau, Ion Lucretiu Stoica, *Scalar conservation laws with fractional stochastic forcing: Existence, uniqueness and invariant measure*, **Stochastic Processes and their Applications** **122** (2012) 1456–1486

3. *Variétés caractéristiques et de résonance.*

Stefan Papadima (IMAR-Bucarest).

Alexandru Dimca (Université de Nice Sophia Antipolis)

2008-2009

Publications:

1. A. Dimca, S. Papadima, A. Suciu: *Topology and geometry of cohomology jump loci*, **Duke Math. Journal**, vol. **148** (2009), no.3, 405-457
2. A. Dimca, S. Papadima: *Finite Galois covers, cohomology jump loci, formality properties, and multinefs*, **Annali Scuola Norm. Sup. Di Pisa**, (5) Vol. **X** (2011), p. 253 – 268.
3. Dimca, S. Papadima, A. Suciu: *Quasi-Kähler groups, 3-manifold groups, and formality*, **Math. Zeitschrift**, vol. **268** (2011), no. 1-2, p. 169 – 186.
4. A. Dimca, S. Papadima: *Arithmetic group symmetry and finiteness properties of Torelli groups*, **Annals in Mathematics** **177** (2013), 395-423.
5. A. Dimca, D. Ibadula et D. A. Macinic, *Pencil type line arrangements of low degree: classification and monodromy*, **Ann. Scuola Norm. Sup. Pisa**, Vol. **XV** (2016), 249-267.

4. *Comportement en hystérésis des matériaux ferroélectriques.*

Aida-Mirela Timofte (IMAR-Bucarest).

Marius Paicu (Université de Paris - Sud)

2008

Publications:

1. Aida-Mirela Timofte: *Homogenization for a nonlinear ferroelectric model*, **Asymptotic Analysis** (2009), p. 177 -- 194

5. *Méthodes variationnelles en micromagnétisme.*

Radu Precup (Université Cluj-Napoca).

Radu Ignat (Université de Paris - Sud)

Francois Alouges (Ecole Polytechnique),

Benoit Merlet (Université Paris-Nord),

2008-2009

Publications:

1. R. Ignat, F. Otto: *A compactness result in thin-film micromagnetics and the optimality of the Néel wall*, **J. Eur. Math. Soc.** **10** (2008), 909-956.
2. F. Alouges, A. De Simone and A. Lefebvre: *Optimal strokes for axisymmetric microswimmers*, **Eur. Phys. J. E** **28** (2009), no. 3, p. 279-284.
3. François Alouges and Karine Beauchard: *Magnetization switching on small ellipsoidal ferromagnetic samples*, **ESAIM: COCV** **15** (3), (2009); p. 676-711.
4. R. Ignat: *A Γ -convergence result for Néel walls in micromagnetics*, **Calc. Var. Partial Differential Equations** **36** (2009), p. 285-316.
5. R. Ignat, B. Merlet: *Lower bound for the energy of Bloch walls in micromagnetics*. **Arch. Ration. Mech. Anal.** **199** (2011), no. 2, 369–406
6. R. Ignat, B. Merlet: *Entropy methods for line-energies*, **Calc. Var. Partial Differential Equations** **44** (3), (2012), p. 375-418

6. *Filtres multiniveaux et équations dispersives - décomposition multiéchelles et stabilisation.*

Vicentiu Radulescu (IMAR et Université de Craiova),

Liviu Ignat (IMAR),

Jean-Paul Chehab (Université de Picardie).

2008-2009

Publications:

1. L. Ignat, *Strichartz estimates for the Schrodinger equation on a tree and applications*, **SIAM J. MATH. ANAL.**, Vol. **42** (2010), No. 5, pp. 2041–2057
2. L. Ignat, D. Stan, *Dispersive Properties for Discrete Schrödinger Equations*, **J. Fourier Anal Appl**, **17** (5), (2011), p. 1035-1065. DOI 10.1007/s00041-011-9173-6.

7. *Géométrie spinorielle sur les variétés localement conformément Kähleriennes.*

Liviu Ornea (IMAR et Université de Bucarest).

Andrei Moroianu (Ecole Polytechnique)

2008-2009

Publications:

1. A. Moroianu, L. Ornea: *Transformations of locally conformally Kähler manifolds*, **Manuscripta Mathematica** **130** (2009), p. 93 – 100.
2. F. Belgun, A. Moroianu, L. Ornea, *Essential points of conformal vector fields*, **J. Geom. Phys.** (2011), no. 3, 589–593.

8. *Méthodes de décomposition de domaines pour les problèmes de contact avec frottement.*

Lori Badea (IMAR),

Marius Cocou (Université de Provence)

Frédéric Lebon (Université de Provence).

2008-2015

Publications:

1. L. Badea: *One- and Two-Level Domain Decomposition Methods for Nonlinear Problems*, in B.H.V.Topping, P.Iványi (Editors), *Proceedings of the First International Conference on Parallel, Distributed and Grid Computing for Engineering*, Civil-Comp Press, **2009**. doi:10.4203/ccp.90.6.
2. L. Badea and M. Cocou, *Approximation results and subspace correction algorithms for implicit variational inequalities*, **Discrete and Continuous Dynamical Systems - Series S**, **6, 6**, (2013), pp. 1507—1524.
3. L. Badea, *Globally convergent multigrid method for variational inequalities with a nonlinear term*, accepté dans **Proceedings of the 22nd International Conference on Domain Decomposition Methods**, September 16-20, 2013, Università della Svizzera Italiana, Lugano, Switzerland.
4. M. Cocou, *A variational analysis of a class of dynamic problems with slip dependent friction*, **Annals of the University of Bucharest (mathematical series)** **5 (LXIII)**, (2014), pp. 279-297.
5. L. Badea, *Two-level methods with optimal computing complexity for variational inequalities of the second kind*, **Annals of the University of Bucharest (mathematical series)**, **5 (LXIII)**, (2014), pp. 195-218.
6. Lori Badea et Marius Cocou, *Internal and subspace correction approximations of implicit variational inequalities*, **Mathematics and Mechanics of Solids**, **20**, (2015), pp. 1026-1048.
7. M. Cocou, *A class of dynamic contact problems with Coulomb friction in viscoelasticity*, **Nonlinear Analysis-Real World Applications**, **22**, (2015), pp. 508-519.
8. L. Badea, F Lebon, *Schwarz method for dual contact problems*, **Comp. Appl. Math.** (2015 – on line), DOI 10.1007/s40314-015-0255-y, à paraître.

9. *Etude des immersions d'une courbe dans une surface $K3$.*

Marian Aprodu (IMAR),

Gianluca Pacienza (IRMA Strasbourg).

2008-2009

Publications:

1. Marian Aprodu, Marius Marchitan, *A note on vector bundles on Hirzebruch surfaces*, **C. R. Acad. Sci. Paris Ser. I Math.** **349**, no 11-12 (2011), 687-690.

10. *L'analyse semi-classique des systèmes quantiques en champ magnétique avec un formalisme mathématique invariant de jauge.*

Radu Purice (IMAR),

Bernard Helffer (Université de Paris - Sud).

2008-2009

Publications:

1. B. Helffer, R. Purice, *Magnetic calculus and semiclassical trace formulas*. **J. Phys. A** **43** (2010), no. 47, 474028, 21 pp.

11. *Courants transitoires dans certains systèmes mésoscopiques, quelques questions mathématiques.*

Valeriu Moldoveanu (National Institute of Material Physics, Bucharest)

Pierre Duclos (Centre de Physique Théorique Luminy, Marseille)

2009

12. *L'indice de l'opérateur de Dirac dans un contexte (variétés complètes de volume infini) où il n'est plus de Fredholm.*

Sergiu Moroianu (IMAR)

Andrei Moroianu (Ecole Polytechnique, Palaiseau)

2009-2011

Publications:

1. Andrei Moroianu, Sergiu Moroianu, *The Dirac operator on generalized Taub-NUT spaces*, **Comm. Math. Phys.** **305** (2011), 641-656.
2. Bernd Ammann, Andrei Moroianu, Sergiu Moroianu, *The Cauchy problems for Einstein metrics and parallel spinors*, **Comm. Math. Phys.** **320** (2013), 173-198.

13. *Opérateurs de composition universels.*

Elodie Pozzi (Université Lyon1)

Dan Timotin (IMAR)

2009-2010

14. *L'unicité et la propriété de Liouville pour le système dynamique de Glauber.*

Ludovic Dan Lemle ("Politehnica" University of Timisoara),

Liming Wu (Université Blaise Pascal de Clermont-Ferrand).

2010-2011

Publications:

1. L.D. Lemle, R. Wang, L.M. Wu, *Uniqueness of Fokker-Planck equation for spin lattice systems (I): compact case*, **Semigroup Forum**, **86** (2013), 583-591.
2. L.D. Lemle, R. Wang, L.M. Wu, *Uniqueness of Fokker-Planck equation for spin lattice systems (II): non-compact case*, **Sci. China Math.**, **57** (2014), 161-172

15. *Géométries convexes tropicales.*

Viorel Nitica (IMAR)

Ivan Singer (IMAR).

Marianne Akian, Stéphane Gaubert (Ecole Polytechnique)

2010-2011

Publications:

1. M. Akian, S. Gaubert, V. Nitica, I. Singer, *Best approximation in max-plus semimodules*, **Linear Algebra and its Applications** **435** (2011), pp. 3261 – 3296.
2. V. Nitica, S. Sergeev, *An interval version of separation by semispaces in max-min convexity*, **Linear Algebra and its Applications** **435** (2011), pag. 1637 – 1648
3. Marianne Akian, Stéphane Gaubert, Alexander Guterman, *Tropical polyhedra are equivalent to mean payoff games*, **Internat. J. Algebra Comput.** **22** (2012), no. 1, 1250001, 43 pp.
4. M. Akian, S. Gaubert, A. Guterman. *The correspondence between tropical convexity and mean payoff games*, **Proceedings of the 19th International Symposium on Mathematical Theory of Networks and Systems** (MTNS 2010), 5-9 July, 2010, Budapest, Hungary, pp. 1295--1302, ISBN 978-963-311-370-7.

16. *Modélisation mathématique en mécanique du contact: analyse, optimisation et approche numérique des modèles.*

Dan Tiba (IMAR).

Mircea Sofonea (Université de Perpignan)

2010-2011

Publications:

1. Mircea Sofonea and Dan Tiba: *The Control Variational Method for Beams in Contact with Deformable Obstacles*, **Bulletin of the Transilvania University of Brasov**, Series III: Mathematics, Informatics, Physics 2 (2009), 127-136.
2. M. Sofonea & D. Tiba, *The Control Variational Method for Elastic Contact Problems*, **Annals of AOSR, Series on Mathematics and its Applications 2 (2010)**, 99-122.
3. A. Matei & M. Sofonea, *History-dependent Variational Inequalities for Viscoelastic Contact Problems*, **European Journal of Applied Mathematics 22 (2011)**, pp. 471--491.
4. M. Barboteu, M. Sofonea, D. Tiba, *The Control Variational Method for Beams in Contact with Deformable Obstacles*, **Zeitschrift für Angewandte Mathematik und Mechanik (ZAMM) 92 (2012)**, 25—40.
5. M. Barboteu, A. Matei, M. Sofonea, *Analysis of Quasistatic Viscoplastic Contact Problems with Normal Compliance*, **Quarterly Journal of Mechanics and Applied Mathematics 65 (2012)**, 555-579.
6. M. Boureau, A. Matei, M. Sofonea, *Analysis of a Contact Problem for Electro-elastic-visco-plastic Materials*, **Communications on Pure and Applied Analysis 11 (2012)**, 1185-1203.
7. M. Sofonea & A. Matei, *Mathematical Models in Contact Mechanics*, London Mathematical Society Lecture Note Series, vol 398, 2012, ISBN 978-1-107-60665-4
8. A. Matei, M. Sofonea, *Dual Formulation of a Viscoplastic Contact Problem with Unilateral Constraint*, **Discrete and Continuous Dynamic Systems - Series S 6 (2013)**, 1587—1598.
9. M. Boureau, A. Matei, M. Sofonea, *Nonlinear Problems with $p(\cdot)$ -growth. Conditions and Applications to Antiplane Contact Models*, **Advanced Nonlinear Studies 14 (2014)**, 295—313.
10. M. Barboteu, F. Patrulescu, A. Ramadan, M. Sofonea, *Viscoplastic Contact Problems with Normal Compliance and Memory Term*, **IMA Journal of Applied Mathematics 79 (2014)**, 1180-1200.
11. M. Barboteu, A. Matei & M. Sofonea, *On the Behavior of the Solution of a Viscoplastic Contact Problem*, **Quarterly of Applied Mathematics 72 (2014)**, 625-647.
12. M. Sofonea, F. Patrulescu, *Penalization of History-Dependent Variational Inequalities*, **European Journal of Applied Mathematics 25 (2014)**, 155—176.
13. M. Sofonea, F. Patrulescu, A. Farcas, *A Viscoplastic Contact Problem with Normal Compliance, Unilateral Constraint and Memory Term*, **Applied Mathematics & Optimization 69 (2014)**, 175-198.

17. *Modélisation de la dynamique de l'impact. Applications aux matériaux qui peuvent subir des transformations de phase ou des phénomènes d'écaillage.* (co-financé par l'Université de Metz)

Cristian Faciu (IMAR),

Alain Molinari (Université Paul Verlaine Metz – LPMM),

Sébastien Mercier (Université Paul Verlaine Metz - LPMM).

2010-2011

Publications:

1. C. Făciu, A. Molinari, *Some numerical aspects in modeling the impact of two shape memory alloy bars*, **U.P.B. Sci. Bull., Series D**, **72(4)**, (2010), 43--48.
2. C. Faciu, A. Molinari : *The structure of shock and interphase layers for a heat conducting Maxwellian rate-type approach to solid-solid phase transitions. Part I: thermodynamics and admissibility*, **Acta Mechanica** **224(11)** (2013), 2577--2610, DOI 10.1007/s00707-013-0846-x.
3. C. Faciu, A. Molinari : *The structure of shock and interphase layers for a heat conducting Maxwellian rate-type approach to solid-solid phase transitions. Part II: numerical study for an SMA model*, **Acta Mechanica** **224(9)** (2013), 1917--1941, DOI 10.1007/s00707-013-0847-9.

18. *Existence of travelling waves for nonlocal reaction-diffusion equations.*

Narcisa Apreutesei (Technical University, Iasi),

Vitaly Volpert (Université Lyon 1)

2010-2011

Publications:

1. N. Apreutesei, V. Volpert, *Properness and topological degree for nonlocal reaction-diffusion operators*, **Abstract Appl. Anal. Vol. 2011** (2011), 21 pages.
2. N. Apreutesei, V. Volpert, *Properness and topological degree for nonlocal reaction-diffusion operators*, **Abstr. Appl. Anal.** (2011), Art. ID 629692, 21 pp.
3. N. Apreutesei, V. Volpert, *Existence of travelling waves for a class of integro-differential equations from population dynamics*, **Int. Electron. J. Pure Appl. Math.**, **5, no. 2** (2012), 53-67
4. N. Apreutesei, V. Volpert, *Reaction-diffusion waves with nonlinear boundary conditions*, **Netw. Heterog. Media**, **8, no. 1** (2013), 23-35, special issue "Nonlinear Partial Differential Equations: Theory and Applications to Complex Systems", (editors: Henri Berestycki, Danielle Hilhorst, FrankMerle, Masayasu Mimura and Khashayar Pakdaman).
5. N. Apreutesei, V. Volpert, *Properness and topological degree for nonlocal integro-differential systems*, **Topological Methods in Nonlinear Analysis**, **43, no. 1** (2014), 215-229.

19. *La modélisation des interactions entre les populations de neurones en utilisant une approche densité de population.*

Carmen Oana Tarniceriu (Alexandru Ioan Cuza University, Iasi),

Jacques Henry (Université Bordeaux 1)

2010-2011

Publications:

1. G. Dumont, J. Henry, C.O. Tarniceriu, *A density model for a population of theta neurons*, **Journal of Mathematical Neuroscience** **4(2)**, (2014). DOI 10.1186/2190-8567-4-2.

20. *Variétés projectives de codimension petite.*

Marian Aprodu (IMAR),
Mihai Paun (Université Nancy 1)
Matei Toma (Université Nancy 1)
2010-2011

Publications:

1. Marian Aprodu, Ruxandra Moraru, Matei Toma, *Two-dimensional moduli spaces of vector bundles over Kodaira surfaces*, **Advances in Mathematics** **231** (2012), 1202-1215.

21. *Méthodes algébriques en probabilités et statistique.*

Daniel Matei (IMAR),
Florin Avram (Université de Pau).
2010-2011

Publications:

1. F. Avram, D. Matei, Y. Zha: *On multiserver retrial queues: history, Okubo-type hypergeometric systems and matrix continued-fractions*. **Asia-Pacific Journal of Operational Research**, vol 31 -02 (2014), pg 1--28.

22. *Analyse diophantienne dans l'étude des polynômes et des équations diophantiennes.*

Nicolae Ciprian Bonciocat (IMAR),
Mihai Cipu (IMAR)
Yan Bugeaud (Université de Strasbourg)
Maurice Mignotte (Université de Strasbourg)
2010-2011

Publications:

1. N. C. Bonciocat, Y. Bugeaud, M. Cipu, M. Mignotte, *Some Polya-type irreducibility criteria for multivariate polynomials*, **Comm. Alg.**, **40**, no. **10**, (2012), 3733-3744.
2. N. C. Bonciocat, M. Cipu, M. Mignotte, *On $SD(-1)$ -quadruples*, **Publ. Mat.**, **56(2)** (2012), 279-304.

23. *Control of nonlinear PDE's.*

Viorel Barbu ("Al.I. Cuza" University Iasi)
Catalin Lefter ("Al.I. Cuza" University Iasi)
Catalin Popa ("Al.I. Cuza" University Iasi)
Armen Shirikyan (Université Cergy-Pontoise).
2010-2012

Publications:

1. V. Barbu, S. Rodrigues, A. Shirikyan. *Internal exponential stabilization to a non-stationary solution for 3D Navier-Stokes equations*, **SIAM Journal Control Optimization** **49**, no. **4** (2011), 1454-1478.

24. *Bipotentials for non monotone multi-valued operators: fundamental results and applications.*

Marius Buliga (IMAR)

Géry de Saxcé (Université Lille 1)

2010-2011

Publications:

1. Marius Buliga, Gery de Saxcé, Claude Vallee: *Blurred maximal cyclically monotone sets and bipotentials*, **Anal. Appl.** **8** (2010), no. 4, p. 323–336.
2. Gery de Saxcé, Marius Buliga, Claude Vallee: *Blurred constitutive laws and bipotential convex covers*, **Mathematics and Mechanics of Solids**, vol. 16, (2), (2011); pp. 161-171.
3. G. de Saxce, M. Buliga, C. Vallee : *A variational formulation for constitutive laws described by bipotentials*, **Mathematics and Mechanics of Solid Journal**, Vol. 18, N°1 (2011), pp. 78-90.

25. *Control of some fluid-structure interaction.*

Sorin Micu (Université de Craiova).

Ionel Roventa (Université de Craiova).

Marius Tucsnak (Université de Nancy 1)

2011

Publications:

1. Micu Sorin, Roventa Ionel, Tucsnak Marius: *Time optimal boundary controls for the heat equation*, **J. Funct. Anal.** **263**(1) (2012), 25-49.

26. *Nonlinear diffusions related to generalized porous media type equations with Neumann boundary conditions. A probabilistic representation.*

Ioana Ciotir (Université “Al.I. Cuza” Iasi).

Francesco Russo (ENSTA ParisTech)

Jean-Francois Mercier (ENSTA – UMA)

2011

Publications:

1. Ioana Ciotir, Francesco Russo, *Probabilistic representation for solutions of a porous media type equation with Neumann boundary condition: the case of the half-line*. **Differential and Integral Equations**, vol. 27 1/2, (2014) pp. 181-200

27. *On some diffusion equations with a gradient term.*

Razvan Iagar (IMAR).

Philippe Laurençot (Université de Toulouse)

2011-2012

Publications:

1. Razvan Iagar, Philippe Laurençot, *Existence and uniqueness of very singular solutions for a fast diffusion equation with gradient absorption*. **J. Lond. Math. Soc.** (2) **87** (2013), no. 2, 509–529.
2. Razvan Iagar, Philippe Laurençot, *Eternal solutions to a singular diffusion equation with critical gradient absorption*. *Nonlinearity* 26 (2013), no. 12, 3169–3195.

28. *Méthodes effectives dans l'étude des polynômes et des équations diophantiennes*

Nicolae Ciprian Bonciocat (IMAR),
Mihai Cipu (IMAR)
Yan Bugeaud (Université de Strasbourg)
Maurice Mignotte (Université de Strasbourg)
2012-2013

Publications:

1. N. C. Bonciocat, Y. Bugeaud, M. Cipu, M. Mignotte, *Irreducibility criteria for sums of two relatively prime polynomials*, **Intern. J. Number Theory**, **9** (2013), 1529--1539.
2. N. C. Bonciocat, Y. Bugeaud, M. Cipu, M. Mignotte, *Irreducibility criteria for sums of two relatively prime multivariate polynomials*, **Publ. Math. Debrecen**, **87** (2015), 255—267.
3. N. C. Bonciocat, Y. Bugeaud, M. Cipu, M. Mignotte, *Irreducibility criteria for compositions of polynomials with integer coefficients*, **Monath. Math.**, (2016 – on line), DOI 10.1007/s00605-016-0890-4
4. N. C. Bonciocat, M. Cipu, M. Mignotte, *A new approach to the study of Diophantine $SD(-1)$ -quadruples*, (en cours d'élaboration)

29. *Surfaces minimales intrinsèques .*

Sergiu Moroianu (IMAR).
Andrei Moroianu (Ecole Polytechnique)
2012-2014

Publications:

1. Bernd Ammann, Andrei Moroianu, Sergiu Moroianu, *The Cauchy problems for Einstein metrics and parallel spinors*, **Comm. Math. Phys.** **320** (2013), 173-198.
2. Andrei Moroianu, Sergiu Moroianu, *Ricci surfaces*, **Ann. Sc. Norm. Super. Pisa Cl. Sci. XIV** (4) (2015), 1093-1118.
3. J. P. Bourguignon, O. Hijazi, J.-L. Milhorat, A. Moroianu, S. Moroianu, *A spinorial approach to Riemannian and conformal geometry*, **EMS Monographs in Mathematics** 2015, ISBN 978-3-03719-136-1

30. *Espaces de modules de fibrés vectoriels sur les surfaces de Kodaira .*

Marian Aprodu (IMAR).
Matei Toma (Université de Nancy 1)
2012-2013

Publications:

1. Marian Aprodu, Ruxandra Moraru, Matei Toma, *Two-dimensional moduli spaces of vector bundles over Kodaira surfaces*, **Advances in Mathematics** **231** (2012), 1202-1215.

31. *Evaluations des fonctions de matrices et algorithmes pararéels.*

Lori Badea (IMAR).
Jean-Paul Chehab (Université d'Amiens)
Madalina Petcu (Université de Poitiers)
2012-2014

Publications:

1. Jean-Paul Chehab and Madalina Petcu, *Parallel Matrix Function Evaluation via Initial value ODE modelling*, à paraître dans **Computers and Mathematics with Applications** (CAMWA), **2016**.

32. *Inverse scattering transform for the Camassa-Holm equation* .

Ingrid Beltita (IMAR).

Renata Bunoiu (Université de Lorraine - Metz)

2012-2013

33. *Bisets, fusion systems, and modular representation theory*.

Andrei Marcus (Université de Cluj-Napoca).

Cosmin Todea (Université de Cluj-Napoca).

Serge Bouc (Université d'Amiens)

Radu Stancu (Université d'Amiens)

2012-2013

Publications:

1. Serge Bouc, Radu Stancu, *The extension algebra of some cohomological Mackey functors*, **Advances in Mathematics**, **283** (2015), 51—87.
2. Constantin-Cosmin Todea, *A theorem of Mislin for cohomology of fusion systems and applications to block algebras of finite groups*, **Expo. Math**, vol. **33** (4), (2015), pag. 526—534 ; doi:10.1016/j.exmath.2014.12.006.

34. *Étude des formes et des courants positifs fermés sur les surfaces de la classe VII*.

Ionut Chiose (IMAR)

Toma Matei (Université de Lorraine).

2013-2015

35. *Autour d'équations elliptiques singulières*.

Radu Ignat (Université Paris Sud)

Filippo Santambrogio (Université Paris Sud)

Alexandru Kristaly (Université Babes-Bolyai – Cluj).

Csaba Farkas (Université Babes-Bolyai – Cluj).

2013-2014

36. *Locally conformally Kaehler manifolds with large symmetry group*.

Liviu Ornea (Université de Bucarest))

Andrei Moroianu (CNRS et Université de Versailles)

2014.

Publications:

1. Paul Gauduchon, Liviu Ornea et Andrei Moroianu, *Compact homogeneous LCK manifolds are Vaisman*, **Math. Annalen**, **361** (3-4), (2015) 1043-1048.

37. *Bifurcation sets and holomorphic arcs*.

Cezar Joita (IMAR)

Mihai Tibar (Université de Lille 1)

2014-2015

Publications:

1. Cezar Joita, Mihai Tibar: *Bifurcation values of families of real curves*, arXiv:1403.4808, a paraître dans **Proceedings of the Royal Society of Edinburgh**.
2. Cezar Joita, Mihai Tibar: *Bifurcation set of multi-parameter families of complex curves*, **arXiv:1512.07499**,

38. *Estimations de Strichartz pour l'équation de Schrödinger sur des arbres/graphes et applications.*

Liviu Ignat (IMAR)

Valeria Banica (Université d'Evry)

2014.

Publications:

1. V. Banica, L. Ignat, *Dispersion for the Schrödinger Equation on Networks.* **J. Math. Physics**, **52**, (2011), 083703.
2. V. Banica, *Dispersion pour l'équation de Schrödinger 1-D avec plusieurs potentiels de Dirac.* **Séminaire Laurent Schwartz - EDP et applications (2013-2014)**, Exp. No. 20, 11 p
3. V. Banica, et L. Ignat, *Dispersion for the Schrödinger equation on the line with multiple Dirac delta potentials and on delta trees.* **Anal. PDE**, **7(4)**, (2014), 903--927.

39. *Ondes de surface en milieux dissipatifs.*

Stan Chirita (Univ. "Al. I. Cuza", Iasi),

Alexandre Danescu (Ecole Centrale de Lyon).

2014-2015

Publications:

1. S. Chirita, A. Danescu, *Surface waves problem in a thermoviscoelastic porous half-space,* **Wave Motion**, vol **54** (2015), pp. 100-114.

40. *Analyse variationnelle et numérique en mécanique du contact.*

Andaluzia Matei (Univ. Craiova)

Mircea Sofonea (Université de Perpignan)

2014-2015

Publications:

1. M. Sofonea, A. Matei, *History-dependent Mixed Variational Problems in Contact Mechanics,* **Journal of Global Optimization**, **61** (2015), 591-614.
2. M. Sofonea, A. Matei, *A Mixed Variational Problem with Applications in Contact Mechanics,* **Journal of Applied Mathematics and Physics (ZAMP)** **66** (2015), 3573-3589.
3. M. Sofonea, F. Patrulescu, Y. Souleiman, *Analysis of a contact problem with wear and unilateral constraint,* **Applicable Analysis (2015 – on line)**, DOI: 10.1080/00036811.2015.1102892, à paraître.

41. *Extensions abéliennes, applications moment et modèles sigma.*

Cornelia Vizman (Universitatea de Vest din Timisoara).

Francois Gay-Balmaz (CNRS et Ecole Normale Supérieure de Paris)

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42. *Opérateurs de Toeplitz tronqués sur les espaces modèles.*

Dan Timotin (IMAR)

Isabelle Chalendar (Université de Lyon 1)

Emmanuel Fricain (Université de Lille 1)

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Gabriela Marinocchi (Institut de mathématiques statistiques et Mathématiques appliquées, Bucarest)

Vuk Milisic (CNRS et Université Paris 13)

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44. *Inverse scattering for inhomogeneous media.*

Ingrid Beltita (IMAR)

Renata Bunoiu (Université de Metz)

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1. I. Beltita, R.. Bunoiu, Inverse scattering for the 1-D Helmholtz equation. **Complex Analysis and Operator Theory, 10, no. 4 (2016)**, 639-666. <http://link.springer.com/article/10.1007/s11785-014-0441-8>

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Laurian Suci (Université "Lucian Blaga", Sibiu)

Catalin Badea (Université Lille 1).

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Denys Dutykh (Université de Savoie).

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47. *Modeling of snow avalanches and stochastic aspects*

Ioan R. Ionescu (Université Paris Nord)

Jean-Stéphane Dhersin (Université Paris Nord)

Oana Lupașcu (Inst. Stat. Math. Math. Appl., Bucarest),

Lucian Beznea (IMAR).

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48. *Méthodes inverses pour les problèmes de détermination des conditions aux limites.*

Liviu Marin (Université de Bucarest).

Franck Delvare (Université de Caen)

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Claudia Timofte (Université de Bucarest).

Renata Bunoiu (Université de Lorraine-Metz)

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50. *Thermodynamic formalism and applications.*

Eugen Mihailescu (IMAR).

Volker Mayer (Université Lille 1)

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