

Raport de cercetare pe anul 2008

I. Lucrări ISI

1. **M. Stefanescu**, I. Cristea - *On the fuzzy grade of hypergroups*. Fuzzy Sets and Systems, 159(2008), 1097-1106. (este ISI si a fost available on-line din 12 nov.2007).
2. **M. Stefanescu**, I. Cristea - *Binary relations and reduced hypergroups*. Discrete Mathematics 308 (2008), pp. 3537 – 3544.
3. **V. Ene**, Popescu, D. - *On the Structure of Maximal Cohen-Macaulay Modules over the Ring $k[[x,y]]/(x^n)$* . Algebras and Representation Theory, **11** (2), 2008, 191-205.
4. **A. Olteanu** - *Constructible ideals*. **Acceptata** spre publicare in Communications in Algebra.
5. **D. Popa** - *Integral and nuclear operators on the space $\mathcal{C}(\Omega, \mathbb{C})$* . Rocky Mountain J. Math. 38(2008), no. 1, 253-265.
6. Al.Agnew, **A.Bobe**, **W. Boskoff**, B.D. Suceava - *Gheorghe Tzitzeica and the origins of affine differential geometry*, to appear in Historia Mathematica, 2008, manuscript number: HM-06-24R2.
7. **W.Boskoff**, B.D.Suceava - *Barbilian metrization procedure in the plane yields either Riemannian or Lagrange Generalized metrics*, The Czechoslovak Mathematical Journal 58 (4), 1059-1068, 2008.
8. F. Ghionea, **C. Flaut** - *An optimization of a transportation problem*, Metalurgia International (http://www.metalurgia.ro/metalurgia_int.html), **13** (1) (2008), index CNCSIS 480.
9. C. I. Koncsag, **A. Bărbulescu** - *Modeling the removal of mercaptans from liquid hydrocarbon streams in structured packing columns*, Chemical Engineering and Processing, **47** (2008), pp. 1717 – 1725. (ISSN: 0255-2701)
10. **V. Ene**, **A. Olteanu**, L. Sorrenti - *Properties of lexsegment ideals*. To **appear** in Osaka Journal of Mathematics.
11. N. Peride, A. Carabineanu, **E.M. Craciun** - *Mathematical modelling of the interface crack propagation in a pre-stressed fiber elastic*, Comp. Mat. Sci., in press, [doi:10.1016/j.commatsci.2008.05.023](https://doi.org/10.1016/j.commatsci.2008.05.023), (2008).
12. N. Peride, **E.M. Craciun**, A. Carabineanu, L. Marsavina - *Mixed mode crack propagation in advanced materials*, J. Opt.. Adv. Mater. **10** (11), p. 2870-2876, (2008).
13. L. Marsavina, **E.M. Craciun**, R. A. Tomlinson - *Combining thermo-photo elasticity for analysis of cracked bodies*, J. Opt.. Adv. Mater., **10** (11), p. 2876-2883, (2008).
14. **E. M. Craciun**, A. Carabineanu, N. Peride - *Antiplane interface crack in a pre-stressed fiber-reinforced elastic composite*, Comp. Mat. Sci., **43** (1) , p. 184-189, (2008); proceedings of the 16th International Workshop on Computational Mechanics of Materials.

II. Lucrări BDI

1. **C. Flaut**, **M. Stefanescu**, *Some applications of Peirce decomposition in generalized rings and algebras*, Italian J. of Pure and Applied Mathematics, nr. 24, 191-202, 2008. <http://www.unipg.it/bibliost/riviste%20sezione%203.htm>

2. **C. Flaut**, *Rational points on elliptic curves over finite fields*, Seminar Series in Mathematics: Algebra, 2008, 45-54.
3. **W.Boskoff**, B.D.Suceava - *A projective characterization of cyclicity*, Beitrage zur Algebra und Geometrie 49 (1), pp. 195-203.

III. Articole în reviste CNCSIS

1. **W. Boskoff**, B. Suceava, A. Vajiac - *An exploration of Hilbert's Neutral geometry*. Gazeta Matematica Seria A, Nr. 1/2008, pg.1-23.
2. **W.G.Boskoff**, *Behind an elementary problem of geometry*, Gazeta Matematica A, 26, No.2/2008, 126-127.
3. A. Carabineanu, **E.M. Craciun**, N. Peride - *Filtration Flow through Cracked Porous Media*, An. St. Univ. "Ovidius" Constanta, seria Inginerie Mecanica, Industriala si Maritima, Vol X(1), p. 451-453, (2008).

IV. Conferințe

Lucrări publicate în volumele unor conferințe indexate ISI

1. M. Parvan, F. Ghionea, **C. Flaut** - *A mathematical model of the relevant request determination in the transport problem*, Mathematics and Computer in Business and Economics, Proceedings of the 9th WSEAS International on Mathematics and Computer in Business and Economics(MCBE' 08), Bucuresti, 24-26 iunie 2008, pag. 105-111.
2. **C. Flaut**, F. Ghionea, M. Parvan - *Optimization of urban transportation network*, Mathematics and Computer in Business and Economics, Proceedings of the 9th WSEAS International on Mathematics and Computer in Business and Economics(MCBE' 08), Bucuresti, 24-26 iunie 2008, pag. 111-116.
3. **A. Bărbulescu**, **E. Pelican** – *On the Sulina Precipitation Data Analysis using the ARMA and a neureal network technique*, Recent Advances in Mathematical and Computational Methods in Science and Engineering, Proceedings of the 10th WSEAS International Conference on Mathematical and Computational Methods in Science and Engineering, MACMESE'08, Part II, WSEAS Press, 2008, pp.508-511 (ISSN: 1790 - 2769).
4. **A. Bărbulescu**, D.C.Toncu, L. Orac, *Analysis and models of some composites corrosion evolution*, Recent Advances in Materials Science, Proceedings of the 1st WSEAS International Conference on Materials Science, MATERIALS'08, WSEAS Press, 2008, pp.63 – 69 (ISSN: 1790 - 2769).
5. C. Maftai, **A. Bărbulescu** - *Statistical analysis of climate evolution in Dobrudja region*, presented at World Congress on Engineering 2008, 2-4 July, published in Lecture Notes in Engineering and Computer Sciences, vol.II, p. 1082 – 1087.

Alte proceedings-uri

1. **E.M. Craciun**, N. Peride, A. Carabineanu - *Mathematical modeling of the critical loads producing superficial and internal instability in glass-epoxy elastic composites*,

EUROMECH Colloquium 498 "Nonlinear Dynamics of Composite and Smart Structures" (NDCS), 2008.

2. **D. Ibadula**, *The Group of Rational Points on Elliptic Curves*, Seminar Series in Mathematics, Ovidius University, Algebra: 5, Proceedings of the 16th National School of Algebra on Elliptic Curves, Constanta, September 5-12, 2007, 75-92.
3. **D. Ibadula**, *Computing the Rank of Nonsingular Elliptic Curve*, Seminar Series in Mathematics, Ovidius University, Algebra: 5, Proceedings of the 16th National School of Algebra on Elliptic Curves, Constanta, September 5-12, 2007, 57-74.

Participări la conferințe naționale

1. **E.M. Craciun**, N. Peride, A. Carabeanu- *Propagation in pre-stressed elastic materials*, 29-31 August, Brasov, 2008.
2. A. Carabeanu, **E.M. Craciun**, N. Peride - *Filtration Flow through Cracked Porous Media*, The 6-th International Scientific Conference on Naval and Mechanical Engineering, Constanta, 22-24 Mai 2008.
3. **E.M. Craciun**, Tomasz Sadowski - *Mathematical modelling of the crack propagation in wood materials*, SML 85- Conference, 21-23 Noiembrie, Timisoara, 2008.
4. **D. Ibadula**, *On the Rationality of the Igusa zeta function of some classes of polynomials*, A XVII-a editie a Scolii Nationale de Algebra, Curbe eliptice, Constanta, octombrie 2008.
5. **D. Ibadula**, *The Arboreal Structure of the Metric Space $GL_2(Q_p)/Q_p^* GL_2(Z_p)$* , comunicare la Exploratory Workshop on Combinatorial Commutative Algebra and Computer Algebra, Mangalia, mai 2008.
6. **W.G. Boskoff**, **M.G. Ciucă**, *Asupra unei geometrii numerice*. Conferinta de Didactica Matematica la UBB Cluj, aprilie 2008.

Internaționale

1. **M. Ștefănescu** - *Near-rings appeared in connection with geometry* - **plenary talk**, Tensor Conference Constanța, Sept 2008.
2. **M. Ștefănescu** - *A survey on connections between hypergroups and geometry*- **plenary talk**, 16th Conference of ROMAI, CAIM 2008, 9-12 Oct 2008, Oradea.
3. **M. Ștefănescu** - *Hyperstructures and geometry*. International Conference of Differential Geometry and Dynamical Systems, 29 August-2 Sept. 2008, Mangalia.
4. **A. Bărbulescu**, C. Maftai, *Modeling the seasonal evolution of precipitations in Dobrudja*, EGU, Viena, 14-18.04.2008, <http://meetings.copernicus.org/egu2008/>.
5. **A. Bărbulescu**, D. C. Toncu, *Study of some composites corrosion*, RSE – SEE, Rovinj, Croatia, 4-8.05.2008, <http://www.rse-see.net/>.
6. **A. Bărbulescu**, D - C. Toncu, *Copper - based alloys corrosion behaviour in circulated medium*, RSE – SEE, Rovinj, Croatia, 4-8.05.2008, <http://www.rse-see.net/>.
7. **A. Bărbulescu**, **E. Pelican**, *Modeling the evolution of precipitation in a region of Romania*, 7th World Congress in Probability and Statistics – Singapore, 2008.
8. **D. Savin**, **C. Flaut**, *Some properties of the symbol algebras*. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its Applications September 3 - 7, 2008, Constanta, Romania.

9. **W.G. Boskoff, M.G. Ciucă**, Generalized Lagrange metrics induced by Lorentz and Minkowski geometries. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its Applications September 3 - 7, 2008, Constanta, Romania.
10. **W.G. Boskoff, B. Suceavă**, *Revisiting the Foundations of Barbilian's Metrization Procedure: Domains with Two Associated Metrics*. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its Applications September 3 - 7, 2008, Constanta, Romania.
11. **W.G. Boskoff, L. Homentcovschi**, *Atiyah's conjecture revisited*. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its Applications September 3 - 7, 2008, Constanta, Romania.
12. **W.G. Boskoff, A. Bobe**, *Before Tzitzeica Surfaces*. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its Applications September 3 - 7, 2008, Constanta, Romania.
13. **C. Flaut, M. Stefanescu**, *Some equations over generalized quaternion and octonion division algebras*. The International Conference DGDS-2008 & MENP-5, August 29 - September 02, 2008, Callatis High School, Mangalia, Romania.
14. **V. Ene**, *Lexsegment ideals*. A V-a conferinta internationala Commutative Algebra and Applications, 23-29 iunie 2008, Fez, Maroc,
<http://faculty.kfupm.edu.sa/math/kabbaj/FezConf/fezconf.htm>.
15. **V. Ene**, *Properties of lexsegment ideals and ideals with linear quotients*, Geometric, Homological and Combinatorial Aspects in Commutative Algebra, 20 august- 2 septembrie 2008, Lahore, Pakistan, www.sms.edu.pk/introduction_GHCA.php.
16. **E.M. Craciun** - *Mathematical modeling of the critical loads producing superficial and internal instability in glass-epoxy elastic composites*, EUROMECH Colloquium 498 "Nonlinear Dynamics of Composite and Smart Structures" (NDCS), Kazimiersz Dolny, Poland, Mai,21-24, 2008.
17. L. Marsavina , **E.M. Craciun**, R.A. Tomlinson– *Combining Thermo-Photo Elasticity for Analisis of Cracked Bodies*, 9th International Balkan Workshop on Applied Phisics July 7-9, Constanta, 2008.
18. N. Peride, **E.M. Craciun**, A. Carabeanu, L. Marsavina - *Mixed mode crack propagation in advanced materials*, 9th International Balkan Workshop on Applied Phisics July 7-9, Constanta, 2008.
19. A. Carabeanu, N. Peride, E. Rapeanu, **E-M Craciun** - *Mathematical modelling of the interface crack - II. A new improved numerical method*, 18-th IWCMM, 6-11 Octombrie, Beijing, China, 2008.
20. T.Sadowski, L. Marsavina, N. Peride, **E-M Craciun** - *Cracks propagation and interaction in PMMA. Analytical, numerical and experimental methods*, 18-th IWCMM, 6-11 Octombrie, Beijing, China, 2008.

V. Cărți

1. **C. Flaut , M. Ștefănescu** - *Extinderi de câmpuri-Probleme*, Editura "Ovidius" University Press, 2008, 120 pag.

2. **M. Ștefănescu**, Diana Savin - *Lecții de aritmetică și teoria numerelor*, Editura MatrixRom, 2008.
3. **M. Ștefănescu** - *15 lecții de istoria matematicii*, Editura MatrixRom, 2008.
4. Rene De Borst, Tomasz Sadowski (editors), "*Lectures Notes on Composites Materials, Curent Topics and Achievments – Solids Mechanics and its Applications*", Springer, 6 Chapters 236 pp.(2008), **E.M. Craciun** – Chapters 5-6, p. 173 – 236.

VI. Granturi de cercetare aflate în derulare

1. Tip: P-CD; titlu: Metode combinatoriale, algebrice, topologice în algebră și geometrie; Coordonator: Institutul de Matematică al Academiei Române; Responsabil din partea Facultății de Matematică și Informatică: Conf. dr. **Viviana Ene**; link: <http://www.imar.ro/~nboncio/MATAG-roum.html>. Încheiat la 1 oct 2008.
2. Proiect IDEI: cod 262, director: **Barbulescu Alina**, titlu proiect: MODELAREA MATEMATICA A PRECIPITATIILOR DIN DOBROGEA.
3. Proiect tip A: cod 902, director: **Barbulescu Alina**, titlu proiect: STUDII PRIVIND MATERIALELE METALICE FOLOSITE IN CONSTRUCTIILE DE NAVE - MODELAREA PIERDERILOR DE MASA IN DIFERITE MEDII.
4. Proiect tip TD; director: **Olteanu Anda-Georgiana**, titlu proiect: ASPECTE COMBINATORIALE IN STUDIUL GRUPURILOR COXETER. Încheiat la 1 oct 2008.
5. Grant Academia Româna nr.106/17.08.2007- 2008 - Comportarea navei în mișcare pe valuri progresive regulate – membru **A. Bărbulescu**.
6. Grantul Marie Curie –Transfer of Knowledge Fellowship (TOK), director: Prof. Univ. Dr. Tomasz Sadowski, Univ. Lublin Polonia; advanced Researcher: **E.M. Crăciun**.
7. **D. Ibadula**: United Nations Educational, Scientific and Cultural Organization and International Atomic Energy Agency Grant, The Abdus Salam International Centre for Theoretical Physisc, Trieste, Italia, August-Septembrie 2008.
8. **D. Ibadula**: Marie Curie Training Courses Programme MSCF-CT-2006-045987 GROUPS and University of the Aegean (Department of Mathematics), Anogia Academic Village, Grecia, Mai-Iunie 2008.

VII. Manifestări Științifice organizate

1. Exploratory workshop on Combinatorial Commutative Algebra and Computer Algebra, finanțat de CNCSIS, 29-31 mai 2008, Mangalia, conferința internațională (în colaborare cu IMAR, FMI București și SSMR), cu participare din: SUA, Germania, Italia, Spania, Grecia, Japonia și, evident, România. Proceedings-ul conferinței va apărea la Contemporary Mathematics, AMS, Providence, Rhode Island, 2009. <http://www.univ-ovidius.ro/math/workshop/2008/>
2. The 17th National School on Algebra, Combinatorial Commutative Algebra Constanța, 5 – 12 octombrie 2008 (în colaborare cu IMAR, Facultatea de Matematică și Informatică din București și SSMR). <http://www.univ-ovidius.ro/math/sna/>.
3. The 10th International Conference of TENSOR Society on Differential Geometry & Its Applications and Mathematical Foundations of Information Sciences & Its

Applications Constanța, 3 – 7 septembrie 2008 (în colaborare cu Societatea TENSOR din Japonia și SSMR). <http://www.univ-ovidius.ro/math/tensor/2008/>.

Analele Științifice ale Universității Ovidius Constanța

Web page: <http://www.anstuocmath.ro/>

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Decan

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