

Scientific work 2000-2016

Associate Professor George Pantelimon Popescu, Ph.D.

List of scientific publications (2000-2016)

Monographs, book chapters (national publishing)

- P.G.Popescu, O.Stanasila, Enunturi Matematice Comentate, Ed. Politehnica Press, Bucuresti, 2017, p. 105, ISBN 978-606-515-773-6.
- P.G.Popescu, Inequalities for Inegalitati pentru Entropia Informationala, Ed. Politehnica Press, 2017, p. 120, ISBN 978-606-515-772-9.
- P.G.Popescu, R.D.Stochitoiu, Utilizarea Exemplicata a Functiilor de Aproximare, Editura Politehnica Press, Bucuresti, 2017, ISBN 978-606-515-774-3.
- V.Iorga, F.Pop, P.G.Popescu et al., Metode Numerice. Proiectare, Analiza si Implementare, Ed. Politehnica Press, Bucuresti, 2015, p. 150, ISBN 978-606-515-646-3.
- P.G.Popescu, I.V.Maftei, J.L.Diaz-Barrero si M.Dinca, Inegalitati matematice - Modele inovatoare, Ed. Didactica si Pedagogica, Bucuresti, 2007, p. 186, ISBN 978-973-30-1985-5.
- I.V.Maftei, P.G.Popescu, M.Piticari, C. Lupu si M.A.Tataram, Inegalitati alese in matematica - Inegalitati clasice, Ed. Niculescu, Bucuresti, 2005, p. 180, ISBN 937-748-017-1.

Articles in journals and conference proceedings (indexed ISI and IEEE Xplore Digital Library)

- M.Carabas, P.G.Popescu, Energy-efficient virtualized clusters, Future Generation Computer Systems: The International Journal of eScience, Volume 74, September 2017, p. 151-157, DOI:10.1016/j.future.2015.10.018, ISSN: 0167-739X. **COMPUTER SCIENCE, THEORY & METHODS Q1**
- M.O.Choudary, P.G.Popescu, Back to Massey: Impressively fast, scalable and tight security evaluation tools, CHES 2017. **CRYPTOGRAPHY A***
- P.G.Popescu, R.Poenaru, F.Pop, New third-order Newton-like method with lower iteration number and lower TNFE, Soft Computing: Methodologies And Application, Vol. 21 (2), 2017, p. 459-466, ISSN: 1432-7643. **COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS Q2**
- P.G.Popescu, E.I.Slusanschi, V.Iancu, F.Pop, A new upper bound for Shannon entropy. A novel approach in modeling of Big Data applications, Concurrency and Computation: Pract. & Exper. Vol. 28 (2), 2016, p. 351-359, ISSN: 1532-0634.
- P.G. Popescu, S.S. Dragomir, E.I. Slusanschi, O.N. Stanasila, Bounds for Kullback-Leibler Divergence, Electronic Journal of Differential Equations, Article number 237, 2016, ISSN: 1072-6691. **MATHEMATICS Q1**
- L. Diez, P.G. Popescu, R. Aguero, A Geometric Programming Solution for the Mutual Interference Model in HetNets, IEEE Communications Letters, Vol. 20 (9), 2016, p. 1876-1879, ISSN: 1089-7798. **TELECOMMUNICATIONS Q2**
- P.G.Popescu, E.I.Slusanschi, V.Preda, Towards a New Bound for a Matrix Norm, Carpathian Journal of Mathematics, Vol. 31 (2), May 2015, p. 255 - 260, ISSN: 1584-2851. **MATHEMATICS Q2**
- P.G.Popescu, J.L.Diaz-Barrero, Annuli for the Zeros of a Polynomial, U.P.B. Scientific Bulletin Series A, Vol. 77(4), 2015, p. 147 - 156, ISSN: 1223-7027.

- P.G.Popescu, E.Slusanschi, A New Bound in Information Theory, IEEE, 2015 20th International Conference on Control Systems and Science, Bucharest, UPB, Romania, 27-29 may 2015, p.220 - 221, ISBN: 978-1-4799-1779-2.
- R.C.Poenaru, R.Constantinescu, P.G.Popescu, New third-order method for solving nonlinear equations with lower iteration number, IEEE, 2015 20th International Conference on Control Systems and Science, Bucharest, UPB, Romania, 27-29 may 2015, p. 222 - 225, ISBN: 978-1-4799-1779-2.
- P.G.Popescu, V.Preda, E.I.Slusanschi, Bounds for Jeffreys-Tsallis and Jensen-Shannon-Tsallis divergences, Physica A, Vol. 413, November 2014, p. 280 - 283, ISSN: 0378-4371. **PHYSICS, MULTIDISCIPLINARY Q1**
- P.G.Popescu, F.Pop, A.Herisanu, N.Tapus, New inequalities between information measures of network information content, Mathematical Problems in Engineering, Article Number 175769, 2013, p. 1 - 3, ISSN: 1563-5147.
- N. Tapus, P.G.Popescu, New Entropy Upper Bound, Applied Mathematics Letters, Vol. 25, 2012, p. 1887 - 1890, ISSN: 0893-9659. **MATHEMATICS, APPLIED Q1**
- P.G.Popescu, J.L.Diaz-Barrero, New rational identities for Entropy involving zeros and coefficients of complex polynomials, U.P.B. Scientific Bulletin Series A, Vol. 74, 2012, p. 37 - 46, ISSN: 1223-7027.
- J.L.Diaz-Barrero, J.J.Egozcue, P.G.Popescu, Some results on the geometry of zeros of polynomials, Proceeding of the Romanian Academy, Series A, Vol. 12, No. 1, Martie 2011, p. 16-21, ISSN: 1454-9069. **MULTIDISCIPLINARY SCIENCES Q2**
- E.Panaitescu, P.G.Popescu, P.Coza, M.Popa, Bayesian and non-Bayesian estimators using record statistics of the modified-inverse Weibull distribution, Proceeding of the Romanian Academy, Series A, Vol. 11, No. 3, September 2010, p. 224-231, ISSN: 1454-9069. **MULTIDISCIPLINARY SCIENCES Q2**
- P.G.Popescu, J.L.Diaz-Barrero, Problem 11465, American Mathematical Monthly, (116 (9) : 845-845 (2009)), ISSN: 0002-9890.
- J.L.Diaz-Barrero, M.Grau-Sanchez, P.G.Popescu, Refinements of Aczel, Popoviciu and Bellman's inequalities, Computers and Mathematics with Applications, Vol. 56, No. 9, November 2008, p. 2356-2359, ISSN: 0898-1221. **MATHEMATICS, APPLIED Q1**
- P.G.Popescu, S.Osiceanu, The discrete logarithm Problem in cyclic subgroups of not necessary cyclic groups, IEEE, IT2008 1st International Conference on Information Technology, Gdansk University of Technology and IEEE Poland Section, Gdansk, Poland, 18-21 may 2008, ISBN: 978-1-4244-2244-9.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 11326, American Mathematical Monthly, (114 (9) : 836-836 (2007)), ISSN: 0002-9890.
- J.L.Diaz-Barrero, P.G.Popescu, A polynomial and its zeros, American Mathematical Monthly, Vol. 114, No. 7, August-September 2007, p. 645-647, ISSN: 0002-9890.
- J.L.Diaz-Barrero, J.G.B_Aguena, P.G.Popescu, Some identities involving rational sums, Applicable Analysis and Discrete Mathematics, Vol. 1, No. 2, 2007, p. 397-402, ISSN: 1452-8630. **MATHEMATICS Q2**
- J.L.Diaz-Barrero, P.G.Popescu, Problem 11190, American Mathematical Monthly, (112 (10): 929-929 (2005)), ISSN: 0002-9890.

Articles in journals and conference proceedings (indexed in other databases)

- I.V.Maftai, P.G.Popescu, Contribution to the Establishment of some Geometric Inequalities, Octogon Mathematical Magazine, Vol. 12, No. 1, April 2004, p. 182-208, ISSN: 1222-5657.
- J.L.Diaz-Barrero, P.G.Popescu, Elementary numerical inequalities for convex functions, RGMIA - research report collection (online and paper), 2005, 8(2):1-6, ISSN: 1443-5764.

- P.G.Popescu, Problema 31, La Gaceta de la RSME, (Vol. 8.1 (2005)), ISSN 1138-8927.
- P.G.Popescu, Problema 37, La Gaceta de la RSME, (Vol. 8.2 (2005)), ISSN 1138-8927.
- I.V.Maftei, P.G.Popescu, Problema 58, La Gaceta de la RSME, (Vol. 9.2 (2006)), ISSN 1138-8927.
- I.V.Maftei, P.G.Popescu, Problema 68, La Gaceta de la RSME, (Vol. 9.3 (2006)), ISSN 1138-8927.
- J.L.Diaz-Barrero, P.G.Popescu, Some Identities Involving Complex Polynomials, RGMIA - research report collection (online and paper), 2006, 9(2):1-6, ISSN: 1443-5764.
- J.L.Diaz-Barrero, J.G.B. Aguenta, P.G.Popescu, Identities Involving Rational Sums, RGMIA - research report collection (online and paper), 2006, 9(4):1-5, ISSN: 1443-5764.
- P.G.Popescu, J.L.Diaz-Barrero, Certain Inequalities for Convex Functions, Journal of Inequalities in Pure and Applied Mathematics, 2006, 7(2):1-5, ISSN: 1443-5756.
- J.L.Diaz-Barrero, P.G.Popescu, Certain Inequalities for Means, Octogon Mathematical Magazine, Vol. 14, No. 1, April 2006, p. 134-137, ISSN: 1222-5657.
- J.L.Diaz-Barrero, P.G.Popescu, Problem B-1025, Fibonacci Quarterly, (44 (4): 371-371, 2006), ISSN: 0015-0517.
- J.L.Diaz-Barrero, P.G.Popescu, Problema U25, Math. Reactions, (5 (2006)).
- J.L.Diaz-Barrero, P.G.Popescu, Problema U26, Math. Reactions, (5 (2006)).
- J.L.Diaz-Barrero, P.G.Popescu, Inequalities Derived Using Lagrange's Theorem, Octogon Mathematical Magazine, Vol. 15, No. 1, April 2007, p. 80-83, ISSN: 1222-5657.
- J.L.Diaz-Barrero, J.G.B. Aguenta, P.G.Popescu, Inequalities Involving the Medians and the Area of a Triangle, Octogon Mathematical Magazine, Vol. 15, No. 2, October 2007, p. 725-729, ISSN: 1222-5657.
- J.L.Diaz-Barrero, P.G.Popescu, An Exponential Inequality, Fibonacci Quarterly, Vol. 45, No.3, 2007, p. 279-280, ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, Problem B-1039, Fibonacci Quarterly, (45 (3) : 278-278, 2007), ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, Problem 3269, Crux Mathematicorum with Mathematical Mayhem, (33 (6): 367-367 (2007)), ISSN 1706-8142.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 3281, Crux Mathematicorum with Mathematical Mayhem, (33 (7): 429-429 (2007)), ISSN 1706-8142.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 3282, Crux Mathematicorum with Mathematical Mayhem, (33 (7): 429-429 (2007)), ISSN 1706-8142.
- I.V.Maftei, P.G.Popescu, Problema 85, La Gaceta de la RSME, (Vol. 10.2 (2007)), ISSN 1138-8927.
- J.L.Diaz-Barrero, P.G.Popescu, Problema 120, La Gaceta de la RSME, (Vol. 11.4 (2008)), ISSN 1138-8927.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 3313, Crux Mathematicorum with Mathematical Mayhem, (34 (2): 104-104 (2008)), ISSN 1706-8142.
- J.L.Diaz-Barrero, P.G.Popescu, Problem H-674, Fibonacci Quarterly, (46/47 (3): 283-283, 2009), ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, A sum of inverse of Fibonacci numbers, Fibonacci Quarterly, Vol. 46/47, No. 1, 2009, p. 88-89, ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, Problem 3418, Crux Mathematicorum with Mathematical Mayhem, (35 (2): 111-111 (2009)), ISSN 1706-8142.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 3539, Crux Mathematicorum with Mathematical Mayhem, (36 (4): 241-241 (2010)), ISSN 1706-8142.

- J.L.Diaz-Barrero, P.G.Popescu, An Inequality Involving pi and Fibonacci Numbers, Fibonacci Quarterly, Vol. 48, No. 3, 2010, p. 286-286, ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, Problem B-1069, Fibonacci Quarterly, (48 (2): 183-183, 2010), ISSN: 0015-0517.
- P.G.Popescu, J.L.Diaz-Barrero, Problem B-1074, Fibonacci Quarterly, (48 (3): 278-278, 2010), ISSN: 0015-0517.
- J.L.Diaz-Barrero, P.G.Popescu, Problem 1878, Mathematics Magazine, (84 (4): 297-297 (2011)), ISSN: 0025-570X.
- P.G.Popescu, Comparison of estimates using record statistics from modified-inverse Weibull model: Bayesian and non-Bayesian approaches, Proceedings of the 17th European Young Statisticians Meeting, Lisbon, Portugal, 5 - 9 September, 2011, ISBN: 978-972-8893-27-9.

List of research grants and contracts (2000-2016)

International grants and contracts

- 2014-2018 Coordinator of ICT COST CRYPTACUS, IC 1403
- 2012-2015 Member in the project team of: LEXNET Low EMF Networks, FP7, ID. 2342342

National grants and contracts

- 2011, 2012, 2013 Expert in the project team of: Cadru de referință al curriculumului național pentru învățământul preuniversitar: un imperativ al reformei curriculare, POS DRU / 55/1.1/S/25088 (PHP, MySQL, web-design, Joomla, Moodle)
- 2011-2012 Expert in the project team of: Development of the Human Resources for the eEfficient Management of the Qualitative Dezvoltarea resursei umane pentru managementul eficient al bazelor de date calitative ale rezultatelor examenelor și evaluărilor naționale din învățământul preuniversitar, DRU - MEBD – EN, POS DRU / 57/1.3/S/21086 (baza de date ORACLE, PHP, web-design, Joomla, Moodle)
- 2012 Expert in the project team of: Competențe cheie TIC in curriculumul școlar), POS DRU / 1/1.1/S/5 (PHP, web-design, Joomla, Moodle)
- 2011 Expert in the project team of: Restructurarea curriculumului național în învățământul liceal, POS DRU / 55/1.1/S/31536 (Php, MySQL, web-design, Joomla, Moodle)
- 2015-2017 Member in the project team of: DataWay - Real-time Data Processing Platform for Smart Cities: Making sense of Big Data, PN-II-RU-TE-2014-4-2731
- 2016-2017 Director of the project: Excellence Research Grants Program, UPB - GEX. Identifiers: UPB - EXCELENTA - 2016, Managementul Eficient al Datelor In Sisteme Distribuite Moderne bazat pe Noi Limite ale Entropiei (acronym: BigDataH), Contract numbers: 18/26.09.2016, Universitatea Politehnica din Bucuresti;