

Prof. Pantelimon George POPESCU

PGP Short CV

- PERSONAL INFORMATION



+40741533097

pgpopescu@upb.ro

Sex Male | Date of Birth 30/06/1984 | Nationality Romanian | Marital status Married, with kids

- PROFESSIONAL EXPERIENCE

- **2018-present: Professor** @ Computer Science and Engineering Department (CS), Faculty of Automatic Control and Computers (ACS), University Politehnica of Bucharest (UPB) [lead of Numerical Methods, Quantum Computing];
- **2016-2018: Associate Professor** @ CS, UPB [lead of Numerical Methods, Quantum Computing];
- **2012-2016: Lecturer** @ CS, UPB [lead of Numerical Methods; applications in Numerical Methods, HPC, C/C++ Programming];
- **2008-2012: Guest Lecturer** @ CS, UPB [applications in micro-Controller Design, Numerical Methods, C/C++ Programming];
- **2005-2010: Associate** @ SC Qerrt Software Impex SRL;

- EDUCATION

- **2017: Habilitation** in Computer Science, Doctoral School of Automatic Control and Computers, UPB [information theory, numerical methods, quantum computing];
- **2014-2015: PostDoc** in Applied Mathematics, Faculty of Applied Sciences, UPB [adviser: prof. Octavian Stănașilă];
- **2008-2011: PhD** in Applied Mathematics, UPB [adviser: prof. Octavian Stănașilă];
- **2003-2008: Engineering Degree** in Computer Science, UPB [adviser: prof. Nicolae Țăpuș];

– 1999-2003: **Baccalaureate** Intensive Informatics, St. Sava College;

PGP Publications List

- Books *all in Romanian* ↓
 1. P.G.Popescu, O.Stănăşilă, *Provocările Calculului Cuantic* - carte de învăţătură, Ed. Politehnica Press, 2019, ISBN 978-606-515-885-6.
 2. P.G.Popescu, O.Stănăşilă, *Enunţuri Matematice Comentate*, Ed. Politehnica Press, 2017, p. 105, ISBN 978-606-515-773-6.
 3. P.G.Popescu, *Inegalităţi pentru Entropia Informaţională*, Ed. Politehnica Press, 2017, p. 120, ISBN 978-606-515-772-9.
 4. P.G.Popescu, R.D.Stochiţoiu, *Utilizarea Exemplificată a Funcţiilor de Aproximare*, Editura Politehnica Press, 2017, ISBN 978-606-515-774-3.
 5. V.Iorga, F.Pop, P.G.Popescu et al., *Metode Numerice. Proiectare, Analiză şi Implementare*, Ed. Politehnica Press, 2015, p. 150, ISBN 978-606-515-646-3.
 6. P.G.Popescu, I.V.Maftai, J.L.Díaz-Barrero şi M.Dincă, *Inegalităţi matematice - Modele inovatoare*, Ed. Didactică şi pedagogică, 2007, p. 186, ISBN 978-973-30-1985-5.
 7. I.V.Maftai, P.G.Popescu, M.Piticari, C. Lupu şi M.A.Tătărâm, *Inegalităţi alese în matematică - Inegalităţi clasice*, Ed. Niculescu, 2005, p. 180, ISBN 937-748-017-1.
- Thesis (*part in Romanian*) ↓
 8. Habilitation in Computer Science - *New Approach of Entropy Bounds*, University Politehnica of Bucharest, 2017, p. 93.
 9. PhD in Mathematics - *Contributions concerning Entropy and Mutual Information (in Romanian)*, University Politehnica of Bucharest, 2011, p. 120 (coord. prof. dr. mat. Octavian Stănăşilă).
 10. Diploma in Computer Sciences - *Discrete logarithm problem in cryptography - Monoids in cryptography (in Romanian)*, University Politehnica of Bucharest, 2008, p. 67 (coord. prof. dr. eng. Nicolae Țăpuş).
- Journal Articles ↓
 11. A.Tanasescu, M.Carabas, F.Pop, P.G.Popescu, *Scalability of k -Tridiagonal Matrix Singular Value Decomposition*, Mathematics, 9(23), 3123, 2021.
 12. A.Tanasescu, M.O.Choudary, O.Rioul, P.G.Popescu, *Tight and Scalable Side-Channel Attack Evaluations through Asymptotically Optimal Massey-like Inequalities on Guessing Entropy*, Entropy, 23(11), 1538, 2021.

-
13. A.Tanasescu, A.Balan, P.G.Popescu, *Zero-correlation entanglement vs. Schmidt rank*, European Physical Journal Plus, Volume: 136, Issue: 5, 2021.
 14. A.Tanasescu, P.G.Popescu, *Separability of heterogeneous quantum systems using multipartite concurrence and tangle*, Quantum Information Processing, Volume: 20, Issue: 2, 2021.
 15. A.Tanasescu, P.G.Popescu, *Exploiting the Massey Gap*, Entropy, Volume: 22, Issue: 12, 2020.
 16. A.Tanasescu, P.G.Popescu, *Separability of heterogeneous multipartite quantum systems using Bloch Vectors*, Quantum Information Processing, Volume: 19, Issue: 6, Article Number: 176, 2020, ISSN: 1570-0755.
 17. A.Tanasescu, V.-F.Iliescu, P.G.Popescu, *Optimal entanglement-assisted almost-random access codes*, Physical Review A, Volume: 101, Issue: 4, Article Number: 042309, 2020, ISSN: 2469-9926.
 18. R.Constantinescu, R.C.Poenaru, F.Pop, P.G. Popescu, *A new version of KSOR method with lower number of iterations and lower spectral radius*, Soft Computing, Volume: 23, Issue: 22, Pages: 11729-11736, 2019.
 19. A.Tanasescu, P.G.Popescu, *Bloch vector norms of separable multi-partite quantum systems*, EPL, Volume: 126, Issue: 6, Article Number: 60003, 2019, ISSN: 0295-5075.
 20. A.Tanasescu, M.-Z.Mina, P.G.Popescu, *Non-local quantum functions and the distributed Deutsch-Jozsa algorithm*, Physics Letters A, Volume: 383, Issue: 18, Pages: 2168-2171, 2019, ISSN: 0375-9601.
 21. A.Tanasescu, P.G. Popescu, *A fast singular value decomposition algorithm of general k-tridiagonal matrices*, Journal of Computational Science, Volume 31, February 2019, Pages 1-5.
 22. M.Z. Mina, P.G. Popescu, *EntangleNet: Theoretical Reestablishment of Entanglement in Quantum Networks*, Applied Sciences, 2018, 8(10), 1935.
 23. M.Carabaş, P.G.Popescu, *Energy-efficient virtualized clusters*, Future Generation Computer Systems, Volume 74, September 2017, p. 151-157, ISSN: 0167-739X.
 24. P.G.Popescu, R.Poenaru, F.Pop, *New third-order Newton-like method with lower iteration number and lower TNFE*, Soft Computing, Vol. 21 (2), 2017, p. 459-466, ISSN: 1432-7643.
 25. 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.

-
26. 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.
 27. L. Diez, P.G. Popescu, R. Agüero, A Geometric Programming Solution for the Mutual Interference Model in HetNets, *IEEE Communications Letters*, Vol. 20 (9), 2016, p. 1876-1879, ISSN: 1089-7798.
 28. 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.
 29. P.G. Popescu, J.L. Díaz-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.
 30. 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.
 31. P.G. Popescu, F. Pop, A. Herişanu, N. Tăpuş, *New inequalities between information measures of network information content*, *Mathematical Problems in Engineering*, Article Number 175769, 2013, p. 1 - 3, ISSN: 1563-5147.
 32. N. Tăpuş, P.G. Popescu, *New Entropy Upper Bound*, *Applied Mathematics Letters*, Vol. 25, 2012, p. 1887 - 1890, ISSN: 0893-9659.
 33. P.G. Popescu, J.L. Díaz-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.
 34. J.L. Díaz-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.
 35. E. Panaitescu, P.G. Popescu, P. Cozma, 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.
 36. P.G. Popescu, J.L. Díaz-Barrero, *Problem 11465*, *American Mathematical Monthly*, (116 (9) : 845-845 (2009)), ISSN: 0002-9890.
 37. J.L. Díaz-Barrero, M. Grau-Sánchez, P.G. Popescu, *Refinements of Aczél, Popoviciu and Bellman's inequalities*, *Computers and Mathematics with Applications*, Vol. 56, No. 9, November 2008, p. 2356-2359, ISSN: 0898-1221.
 38. J.L. Díaz-Barrero, P.G. Popescu, *Problem 11326*, *American Mathematical Monthly*, (114 (9) : 836-836 (2007)), ISSN: 0002-9890.

-
39. J.L.Díaz-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.
40. J.L.Díaz-Barrero, J.G.Báguena, P.G.Popescu, *Some identities involving rational sums*, Applicable Analysis and Discrete Mathematics, Vol. 1, No. 2, 2007, p. 397-402, ISSN: 1452-8630.
41. J.L.Díaz-Barrero, P.G.Popescu, *Problem 11190*, American Mathematical Monthly, (112 (10) : 929-929 (2005)), ISSN: 0002-9890.
- Conference Articles (*part in Romanian*) ↓
42. P.G.Popescu, M.O.Choudary, *Refinement of Massey Inequality*, ISIT 2019, Paris.
43. M.O.Choudary, P.G.Popescu, *Back to Massey: Impressively fast, scalable and tight security evaluation tools*, CHES 2017, Taipei.
44. P.G.Popescu, E.Slușanschi, *A New Bound in Information Theory*, IEEE 20th International Conference on Control Systems and Science, CSCS 2015, Bucharest.
45. R.C.Poenaru, R.Constantinescu, P.G.Popescu, *New third-order method for solving nonlinear equations with lower iteration number*, IEEE 20th International Conference on Control Systems and Science, CSCS 2015, Bucharest.
46. 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, 2011, Lisbon.
47. P.G.Popescu, S.Osiceanu, *The discrete logarithm Problem in cyclic subgroups of not necessary cyclic groups*, IEEE 1st International Conference on Information Technology, IT2008, Gdansk.
48. P.G.Popescu, *Obtaining rational identities involving polynomials*, Arhimede - International symposium of pure and applied mathematics, 2006, Bucharest.
49. P.G.Popescu, M.Popescu, *Grupuri de funcții (Groups of functions)*, Arhimede - International symposium of pure and applied mathematics, 2006, Bucharest.
50. P.G.Popescu, M.Popescu, *Ecuații de gradul II cu matrice de ordinul II (Equations of degree 2 with matrices of order 2)*, Arhimede - International symposium of pure and applied mathematics, 2005, Bucharest.
51. P.G.Popescu, J.L.Diaz-Barrero, I.V.Maftai, *Zero and coefficient Identities and Inequalities*, Arhimede - International symposium of pure and applied mathematics, 2005, Bucharest.
52. P.G.Popescu, C.Lupu, *Asupra unei inegalități (About an inequality)*, Arhimede - International symposium of pure and applied mathematics, 2005, Bucharest.
-

-
53. P.G.Popescu, *Inegalități cu ponderi stabilite (Inequalities with weights well established)*, Arhimede - International symposium of pure and applied mathematics, 2005, Bucharest.
54. P.G.Popescu, *Elemente inversabile în monoizi (Invertible elements in monoids)*, Simpozionul Național de Matematică al revistei *Arhimede*, 2004, Bucharest.
55. P.G.Popescu, *O extindere a teoremei lui Lagrange (An extension of a theorem of Lagrange)*, Simpozionul Național de Matematică al revistei *Arhimede*, 2004, Bucharest.
56. P.G.Popescu, *Inegalități geometrice (Geometrical Inequalities)*, Simpozionul de Matematică Miron Nicolescu, 2001, Bucharest.
- Other Journal Articles (*part in Romanian*) ↑
57. P.G.Popescu, M.Popescu, *Îmbunătățirea unor inegalități (Improvement of some inequalities)*, Revista *Arhimede*, nr. 7-8, 2002, p. 25-26.
58. P.G.Popescu, *Problema XI.178[a matrix identity]*, Revista *Arhimede*, 11-12/2002, p.52.
59. P.G.Popescu, *Asupra unei probleme date la O.B.M. (About a problem from OBM)*, Gazeta Matematică, CVII, nr. 11, 2002, p. 436-437.
60. P.G.Popescu, *Aplicații ale celui de-al doilea punct al lui Brocard (Applications of the second Brocard point)*, Revista *Arhimede*, nr. 1-2, 2003, p. 28-30.
61. P.G.Popescu, *Problema 24835[from an f endomorphism on G , any group, we have G commutative]*, Gazeta Matematică, 1/2003, p.43.
62. P.G.Popescu, *Problema 24916[for H subgroup of G , any finite, with an property of cardinality, yields $H=G$]*, Gazeta Matematică, 5-6/2003, p.244.
63. P.G.Popescu, *Problema XI.198[the limit of some sequences that form a second order matrix]*, Revista *Arhimede*, 5-6/2003, p.59.
64. P.G.Popescu, *Problema XI.208[matrix identities]*, Revista *Arhimede*, 7-8/2003, p.59.
65. P.G.Popescu, *Proprietăți de stabilitate în monoizi (Stability properties in monoids)*, Gazeta Matematică, CVIII, nr. 9, 2003, p. 328-330.
66. P.G.Popescu, *Problema XI.218[two equivalent matrix identities]*, Revista *Arhimede*, 11-12/2003, p.56.
67. P.G.Popescu, *Problema XII.176[the limit of a function]*, Revista *Arhimede*, 11-12/2003, p.57.
68. P.G.Popescu, I.V.Maftai *Contribuții la stabilirea unor inegalități geometrice (Some geometrical inequalities)*, Revista *Arhimede*, nr. 11-12, 2004, p. 10-16.
-

-
69. P.G.Popescu, *O extindere a teoremei lui Lagrange (Extension of a theorem of Lagrange)*, Revista Arhimede, nr. 1-2, 2004, p. 5-8.
 70. P.G.Popescu, *On a functional equation*, Revista Arhimede, nr. 5-6, 2004, p. 12-13.
 71. P.G.Popescu, *Problema XII.188[with a f endomorphism on G , any group, we have G comutative if and only if f is automorphism]*, Revista Arhimede, 5-6/2004, p.55.
 72. P.G.Popescu, *Problema XII.189[with a f endomorphism on G , yields f automorphism]*, Revista Arhimede, 5-6/2004, p.55.
 73. P.G.Popescu, *Problema XI.244[a second order matix constructed by a convergent real number sequence]*, Revista Arhimede, 7-8/2004, p.47.
 74. P.G.Popescu, *Problema XII.194[from a f endomorphism surjective on G , any group, yields G commutative]*, Revista Arhimede, 7-8/2004, p.47.
 75. P.G.Popescu, *Problema XII.202[an equation in an integer ring]*, Revista Arhimede, 9-10/2004, p.39.
 76. P.G.Popescu, *Problema XII.203[from f endomorphism on G and $a \in G - Ker(f)$, any group, yields f automorphism]*, Revista Arhimede, 11-12/2004, p.58.
 77. 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.
 78. P.G.Popescu, M.Popescu, *Ecuatii de grad 2 cu matrice de grad 2 (Equations of second degree with second order matrix)*, Revista Arhimede, nr. 3-4, 2005, p. 30-32.
 79. P.G.Popescu, *Problema XII.218[considering an endomorphism surjective on G yields G commutative]*, Revista Arhimede, 5-8/2005, p.56.
 80. P.G.Popescu, J.L.Diaz-Barrero, *Certain Zero and Coefficient Inequalities*, Revista Arhimede, nr. 5-8, 2005, p. 2-6.
 81. J.L.Díaz-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.
 82. P.G.Popescu, *Problema 31*, La Gaceta de la RSME, (Vol. 8.1 (2005)), ISSN 1138-8927.
 83. P.G.Popescu, *Problema 37*, La Gaceta de la RSME, (Vol. 8.2 (2005)), ISSN 1138-8927.
 84. I.V.Maftai, P.G.Popescu, *Problema 58*, La Gaceta de la RSME, (Vol. 9.2 (2006)), ISSN 1138-8927.

-
85. I.V.Maftci, P.G.Popescu, *Problema 68*, La Gaceta de la RSME, (Vol. 9.3 (2006)), ISSN 1138-8927.
 86. J.L.Díaz-Barrero, P.G.Popescu, *Some Identities Involving Complex Polynomials*, RGMIA - research report collection (online and paper), 2006, 9(2):1-6, ISSN: 1443-5764.
 87. J.L.Díaz-Barrero, J.G.Báguena, P.G.Popescu, *Identities Involving Rational Sums*, RGMIA - research report collection (online and paper), 2006, 9(4):1-5, ISSN: 1443-5764.
 88. P.G.Popescu, J.L.Díaz-Barrero, *Certain Inequalities for Convex Functions*, Journal of Inequalities in Pure and Applied Mathematics, 2006, 7(2):1-5, ISSN: 1443-5756.
 89. J.L.Díaz-Barrero, P.G.Popescu, *Certain Inequalities for Means*, Octagon Mathematical Magazine, Vol. 14, No. 1, April 2006, p.134-137, ISSN: 1222-5657.
 90. J.L.Díaz-Barrero, P.G.Popescu, *Problem B-1025*, Fibonacci Quarterly, (44 (4) : 371-371, 2006), ISSN: 0015-0517.
 91. J.L.Díaz-Barrero, P.G.Popescu, *Problema U25*, Math. Reflections, (5 (2006)).
 92. J.L.Díaz-Barrero, P.G.Popescu, *Problema U26*, Math. Reflections, (5 (2006)).
 93. J.L.Díaz-Barrero, P.G.Popescu, *Inequalities Derived Using Langrange's Theorem*, Octagon Mathematical Magazine, Vol. 15, No. 1, April 2007, p. 80-83, ISSN: 1222-5657.
 94. J.L.Díaz-Barrero, J.G.Báguena, P.G.Popescu, *Inequalities Involving the Medians and the Area of a Triangle*, Octagon Mathematical Magazine, Vol. 15, No. 2, October 2007, p. 725-729, ISSN: 1222-5657.
 95. J.L.Díaz-Barrero, P.G.Popescu, *An Exponential Inequality*, Fibonacci Quarterly, Vol. 45, No. 3, 2007, p. 279-280, ISSN: 0015-0517.
 96. P.G.Popescu, J.L.Díaz-Barrero, *Problem B-1039*, Fibonacci Quarterly, (45 (3) : 278-278, 2007), ISSN: 0015-0517.
 97. P.G.Popescu, J.L.Díaz-Barrero, *Problem 3269*, Crux Mathematicorum with Mathematical Mayhem, (33 (6) : 367-367 (2007)), ISSN 1706-8142.
 98. J.L.Díaz-Barrero, P.G.Popescu, *Problem 3281*, Crux Mathematicorum with Mathematical Mayhem, (33 (7) : 429-429 (2007)), ISSN 1706-8142.
 99. J.L.Díaz-Barrero, P.G.Popescu, *Problem 3282*, Crux Mathematicorum with Mathematical Mayhem, (33 (7) : 429-429 (2007)), ISSN 1706-8142.
 100. I.V.Maftci, P.G.Popescu, *Problema 85*, La Gaceta de la RSME, (Vol. 10.2 (2007)), ISSN 1138-8927.
 101. J.L.Díaz-Barrero, P.G.Popescu, *Problema 120*, La Gaceta de la RSME, (Vol. 11.4 (2008)), ISSN 1138-8927.
-

-
102. J.L.Díaz-Barrero, P.G.Popescu, *Problem 3313*, Crux Mathematicorum with Mathematical Mayhem, (34 (2) : 104-104 (2008)), ISSN 1706-8142.
 103. J.L.Díaz-Barrero, P.G.Popescu, *Problem H-674*, Fibonacci Quarterly, (46/47 (3) : 283-283, 2009), ISSN: 0015-0517.
 104. P.G.Popescu, J.L.Díaz-Barrero, *A sum of inverse of Fibonacci numbers*, Fibonacci Quarterly, Vol. 46/47, No. 1, 2009, p. 88-89, ISSN: 0015-0517.
 105. P.G.Popescu, J.L.Díaz-Barrero, *Problem 3418*, Crux Mathematicorum with Mathematical Mayhem, (35 (2) : 111-111 (2009)), ISSN 1706-8142.
 106. J.L.Díaz-Barrero, P.G.Popescu, *Problem 3539*, Crux Mathematicorum with Mathematical Mayhem, (36 (4) : 241-241 (2010)), ISSN 1706-8142.
 107. J.L.Díaz-Barrero, P.G.Popescu, *An Inequality Involving pi and Fibonacci Numbers*, Fibonacci Quarterly, Vol. 48, No. 3, 2010, p. 286-286, ISSN: 0015-0517.
 108. P.G.Popescu, J.L.Díaz-Barrero, *Problem B-1069*, Fibonacci Quarterly, (48 (2) : 183-183, 2010), ISSN: 0015-0517.
 109. P.G.Popescu, J.L.Díaz-Barrero, *Problem B-1074*, Fibonacci Quarterly, (48 (3) : 278-278, 2010), ISSN: 0015-0517.
 110. J.L.Díaz-Barrero, P.G.Popescu, *Problem 1878*, Mathematics Magazine, (84 (4) : 297-297 (2011)), ISSN: 0025-570X.
- Technical reports (*in Romanian*)
 111. P.G.Popescu, *Cercetări privind entropia Shannon și entropia relativă pentru domeniul teoriei informației și aplicații conexe (Research on Shannon entropy and relative entropy from Information Theory with applications)*, PostDoctoral Report, p. 54, Universitatea Politehnica din București, 2015.