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Ph.D in Mathematics

Head of Science Department

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Brief biographic information

- Date and place of birth: 06.02.1971, Baku, Azerbaijan
- The secondary school No 20, Baku, Azerbaijan, 1988

Education, scientific degrees and titles

- Ph.D in System analysis, control and information processing, 2014
- Faculty of Applied Mathematics, Baku State University, 1993

Professional activity

- Head of Science Department, Azerbaijan University, 2017
- Scientific researcher, Institute of Applied Mathematics, Baku State University, 1993-2017

Field of research

- Control, optimization, computational mathematics

Grants and achievements

- Baku State University “50+50” Internal Grant Project.
- The Foundation for Development of ICT (Ministry of Communication, Transport and High Technologies) Grant, 2016.
- Science Development Foundation under the President of the Republic of Azerbaijan Grant No. EIF Mob-4-2014-1(16)-11/04/1-M-04.
- Science Development Foundation under the President of the Republic of Azerbaijan Grant No. EIF-2011-1(3-82)/25/1-M-29.
- Soros Foundation, Open Society Institute, Grant No. 500481HE61.

Publications

- **Efendiyeva I.M., Abdullayeva L.K., Hasanov M.H., Agamaliyeva L.F.** Investigation of separation boundary properties in metal-semiconductor contact, Scientific conference "Information, science, technology and University perspectives", Lankaran, 18 December 2020, pp.26-27 (in Azerbaijani).
- **Gasimov YS, Pashayev A., Agamaliyeva LF,** The role of national strategy in the development of the digital economy, International Conference "Digital Economy: Modern Challenges and Real Opportunities", UNEC-2020, 13-14 February, Baku, 2020, pp.126-128 (in Azerbaijani).
- **Azizov B., Pashayev A., Agamaliyeva L.F.** Soft computing technologies of hybrid model structure for the automated control of flights, International Conference on Natural Science and Technology ICONAT-2020, 20-22 August, Turkey, p.23.
- **Gasimov Y.S., Agamaliyeva L.F., Aliyeva A.R.** On the existence results for the functionals of the eigenvalues of the Pauli operator. International Conference on Modern Problems of Mathematics and Mechanics dedicated to the 60th Anniversary of IMM, 23-25 October, 2019, Baku, Azerbaijan, pp.201-203.
- **Gasimov Y., Pashayev A., Agamaliyeva L.F., Azizov B., Lacinova V., Smerek M.,** Application of Decision-Making Expert Systems in Transportation, Naše More-International Journal of Maritime & Technology, Vol.66, No3, 2019, pp. 130-134 (Clavirate /Analytics, ESCI).
- **Askerov Sh.G., Abdullayeva L.K., Agamaliyeva L.F.** Investigation of the mechanism of breakdown of Schottky diodes depending on the metal microstructure, AIP Conference - International Conference on Modern Trends in Physics Proceedings, 2019.
- **Askerov Sh.G., Efendiyeva I.M., Abdullayeva L.K., Hasanov M.G., Agamaliyeva L.F.** Influence of thermal annealing on the electrophysical properties of Schottky diodes, Azerbaijan Technical University, Scientific works, №1, 2018, pp.51-54 (in Russian).
- **Gasimov Y.S., Agamaliyeva L.F., Aliyeva A.** Numerical algorithm to solution of a shape design problem, The Third International Conference on Applications of Mathematics and Informatics in Natural Sciences and Engineering Dedicated to the 80th Birthday of David Gordeziani, AMINSE 2017, Tbilisi, Georgia, December 6-9, 2017.
- **Velieva N.I., Agamaliyeva L.F.,** MATLAB-based algorithm to solving an optimal stabilization problem for the descriptor systems, Eurasian Journal of Mathematical and Computer Applications, Vol.5, No.2, 2017, pp. 80-85 (*Scopus based*).
- **Gasimov Y.S., Velieva N.I., Agamaliyeva L.F.,** On some domain minimization problems for the differential operators, 3rd International Conference on Pure and Applied Sciences, 2-6 February, Dubai, 2017, p.26.
- **Velieva N.I., Agamaliyeva L.F.,** Inverse problem for synthesis of the optimal stabilizing output regulator, Akademik M. Rəsulovun 100 illiyinə həsr olunmuş konfrans, 28-29 oktyabr 2016.
- **Velieva N.I., Agamaliyeva L.F.,** High performance algorithm to separation of the fractional-rational matrices, Issyk-Kul International Mathematical Forum, Bulan-Sogottu, Kyrgyzstan, June 24-27, 2015.
- **Velieva N.I., Agamaliyeva L.F., Gasimova K.G.,** Approximate solution of the synthesis problem with measurement errors: discrete case, The 5th International Conference on

Control and Optimization with Industrial Applications, 27-29 August, 2015, Baku, Azerbaijan, pp.279-282.

- **Aliev F.A., Gasimov Y.S., Velieva N.I., Agamalieva L.F.**, High accuracy algorithms to solution of the discrete synthesis problems with measurement errors, *Ciencia e Tecnica Vitivinicola Journal*, Volume 30, Issue 5, 2015, pp.29-36. (Impact Factor 0,1)
- **Agamalieva L.F., Aliev F.A., Velieva N.I.**, Approximate Factorization of Matrix Polynomials with applications to the Synthesis Problems, *Bull. Math. Soc. Sci. Math. Roumanie*, Tome 58(106) No. 4, 2015, pp.371-382 (Impact Factor: 0.452)
- **Gasimov Y.S., Velieva N.I., Agamalieva L.F.**, High Accuracy Algorithms to Solution of the Discrete Synthesis Problems with Measurement Errors, 3rd International Eurasian Conference on Mathematical Sciences and Applications, Vienna, Austria, 2014. pp.300.
- **Aliev F.A., Velieva N.I., Agamalieva L.F.**, High accuracy algorithms to solution of the synthesis problems with measurement errors, V Congress of the Turkic World Mathematicians, Kyrgyzstan, Issyk-kul Aurora, 2014, pp.89.
- **Velieva N.I., Agamalieva L.F., Khanbabayeva M.H.**, High accuracy solution of the multidimensional problem synthesis for the stabilization systems with external perturbations, *Proceedings of IAM*, V.3, N.1, 2014, pp.98-104.
- **Agamalieva L.F.** High-accuracy algorithm for the separation of the fractional-rational matrices using symbolic computations, *News of Baku State University*, No.3, 2013, pp.74-82.
- **Aliev F.A., Velieva N.I., Agamalieva L.F.** The algorithm for factorization of the polynomial matrix and the separation of the fractional-rational expressions arising in solving optimal synthesis problems, *Joint Special. News of the East Kazakhstan State Technical University named D. Serikbayev and Institute of Computational Technologies of the Siberian Branch of the Russian Academy of Sciences*, Ust-Kamenegorsk, part 5, 2013, pp. 102-111.
- **Agamalieva L.F.** Symbolic computing high-accuracy algorithm for the separation of the fractional-rational matrices, 2nd International Eurasian Conference on Mathematical Sciences and Applications, 26-29 August, Bosnia and Herzegovina, 2013, pp.175.
- **Aliev F.A., Velieva N.I., Agamalieva L.F.** Inverse static output feedback problem for the functional involving cross terms, *International Conference "Dynamical systems: Stability, Control, Optimization"* dedicated to the 95th anniversary of Ye.A. Barbashin, October 1-5, 2013, Minsk.
- **Agamalieva L.F., Aliev F.A., Velieva N.I.**, Algorithms for factorization of the irregular matrix polynomials using symbolic computations, *TWMS J. Pure Appl. Math.*, V.4, N.1, 2013, pp.103-109.
- **Aliev F.A., Velieva N.I., Agamalieva L.F.** General case of factorization of the nonregular matrix polynomials using symbolic calculations, 4th International Conference "Control and Optimization with Industrial Applications", July 10-12, 2013, Borovets, Bulgaria, pp.12-13.
- **Aliev F.A., Gasimov Y.S., Velieva N.I., Safarova N.A., Agamalieva L.F.**, High accuracy algorithm to the solution of the optimal output feedback problem for the linear systems, *The 9th Seminar on differential equations and dynamical systems*, July 11-13, 2012, Tabriz, Iran, pp.353-354.
- **Aliev F.A., Gasimov Y.S., Velieva N.I., Agamalieva L.F.**, A method for the solution of the optimal control problem for the linear descriptor systems, *The 1st Eurasian*

Conference on Mathematical Sciences and Applications, September 03-07, 2012, Pristine, Kosovo, p.107.

- **Aliev F.A., Gasimov Y.S., Velieva N.I., Safarova N.A., Agamalieva L.F.**, High accuracy algorithms to the solution of the optimal output feedback problem for the linear systems, Proceedings of the Romanian Academy, Series A, Vol. 13, N.3, 2012, pp.207-214 (impact factor 0,54).
- **Velieva N.I., Agamalieva L.F.**, High-accuracy algorithm to the factorization of the polynomials in the Matlab medium, Transaction of Azerbaijan National Academy of Sciences, Series of Physical –Technical and Mathematical Sciences: Informatics and Control Problems, XXXI, No.6, 2011, pp.128-133.
- **Agamalieva L.F.** High accuracy algorithm for the factorization of polynomials, 3rd International Conference on Control and Optimization with Industrial Applications, Bilkent University, Ankara, Turkey, p.93-94.
- **Velieva N.I., Agamalieva L.F.** Numerical methods to the factorization of the matrix polynomial with respect to unit circle, IV Congress of Turkic World Mathematical Society, 1-3 July, 2011, Baku, Azerbaijan, p.341.
- **Velieva N.I., Agamalieva L.F.**, High accuracy algorithm for factorization a polynomial matrix relatively unit circle, News of the Kyrgyz-Russia Shavian University, Vol..10, No.9, 2010, pp.83-86.
- **Velieva N.I., Agamalieva L.F.**, High performance algorithm for the polynomial matrix relatively unit circle using MATLAB, Int. Conference on Differential Equations and Dynamical Systems, Suzdal, Russia, 2-7 July, 2010, p.51.
- **Velieva N.I., Radjabov M.F., Agamalieva L.F.**, High algorithms factorization polynomial and separations of fractional-rational expressions, Reports of ANAS, LXV, No.1, 2009, pp.29-37.
- **Velieva N.I., Agamalieva L.F.**, Separations of fractional-rational expressions, Int. Conference dedicated to the 90th Anniversary of Baku State University, Baku, 2009, p.109.