

Korgin Nikolay Andreevich

Born 1977

Doctor of Science in Engineering - 2014

ResearcherID - D-3719-2014

Appointments:

Head of Laboratory of Active Systems, V.A. Trapeznikov Institute of Control Sciences of Russian Academy of Sciences

Professor of Moscow Institute of Physics and Technology

Professor and Senior Research Fellow of National Research University - Higher School of Economics

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Education:

Cand. Sci. (equivalent to Ph.D. in EU) in Engineering from V.A. Trapeznikov Institute of Control Sciences of RAS, 2003 (Control in Social and Economic Systems).

MS in Applied Mathematics and Physics from Moscow Institute of Physics and Technology (Dept. of Radio-Engineering and Cybernetics), 2000.

Areas of interest:

Control in Organizations (Managerial Economics)

Game theory, experimental game theory

Social choice theory

Mechanism Design

Main Publications in English (as of November 2019):

Books:

1. Burkov, V. N., Goubko, M., Korgin, N., & Novikov, D. (2015) Introduction to Theory of Control in Organizations. – CRC Press – V. 10. - 332 p.
2. Gubanov, D., Korgin, N., Novikov, D., & Raikov, A. (2014). E-Expertise: Modern Collective Intelligence (Vol. 558). - Springer - 112 p.
3. Goubko, M., Burkov, V., Kondrat'ev, V., Korgin, N., Novikov, D.(2013) Mechanism design and management: Mathematical methods for smart organizations - New York: Nova Science. PP. 190

Articles in peer-reviewed journals

1. Churkin A. et al. Can cross-border transmission expansion lead to fair and stable cooperation? Northeast Asia case analysis //Energy Economics. – 2019. – C. 104498.
2. Churkin A. et al. Manipulability of Cost and Benefit Allocation in Cross-border Electrical Interconnection Projects //2019 IEEE Milan PowerTech. – IEEE, 2019. – P. 1-6.
3. Korgin N., Korepanov V. Optimal Planning Solution's Simulation for the Active Expertise //2019 IEEE 21st Conference on Business Informatics (CBI). – IEEE, 2019. – V. 2. – P. 68-73.
4. Korgin N. A., Korepanov V. O. (2017) Experimental and theoretical comparison of several resource allocation mechanisms // IFAC-PapersOnLine Volume 50, Issue 1, Pages 15592–15597
5. Korgin N.A., Korepanov V.O. (2017) Experimental Gaming Comparison of Resource Allocation Rules in Case of Transferable Utilities //International Game Theory Review, Vol. 19, № 2., p. 1750006.
6. Korgin N.A. Rozdestvenskaya S.M. Concordant Approach for R&D Projects' Evaluation and Ranking // 2017 IEEE 11th International Conference on Application of Information and Communication Technologies (AICT). – IEEE, 2017. Vol 2. – P. 358-362.
7. Burkov V.N. , Korgin N.A., Novikov D.A. (2016) Mechanisms for Organizational-Technical Systems: Problems of Integration and Decomposition // IFAC-PapersOnLine Volume 49, Issue 32, 2016, Pages 1-6
8. Chirkin V., Goldstein M., etc. (2016) Gaming Experiments for Analysis of Pricing Mechanisms at Electricity Markets // IFAC-PapersOnLine Volume 49, Issue 32, 2016, Pages 13-18
9. Korgin N. A. (2016) Equivalence and strategy-proofness of non-anonymous priority allotment mechanisms // Automation and Remote Control 77 (11) PP.2065-2079
10. Korgin N. A., Korepanov V. O. (2016) Experimental Gaming Analysis of ADMM Dynamic Distributed Optimization Algorithm //IFAC-PapersOnLine Volume 49, Issue 12, 2016, Pages 574-579
11. Korgin N. A., Korepanov V. O. (2016) An efficient solution of the resource allotment problem with the Groves–Ledyard mechanism under transferable utility //Automation and Remote Control 77 (5) PP. 914-942
12. Korgin N.A. (2015) Introduction to theory of control in organizations for kids via interactive games // IFAC-PapersOnLine Volume 48, Issue 29, Pages 289–294
13. Korgin, N.A. (2014) Representing a sequential allotment rule in the form of a strategy-proof mechanism of multicriteria active expertise // Automation and Remote Control 75 (5) PP. 983-995
14. Burkov, V.N., Goubko, M.V., Korgin, N.A., Novikov, D.A. (2013) Mechanisms of organizational behavior control: A survey // Advances in Systems Science and Applications 13 (1) PP. 1 – 20.
15. Bondarik, V.N., Korgin, N.A. (2013) Resource allocation mechanisms based on strategy-proof symmetrical anonymous voting procedures with delegation // Automation and Remote Control 74 (9) PP. 1557 - 1566
16. Korgin N. A. (2013) Efficient mechanism for resource allocation with quadratic payments and its realization via an iterative bargaining process// IFAC Proceedings Volumes (IFAC-PapersOnline) PP. 1176 - 1181

Total number of publications

Books (and textbooks) – 8

Articles in peer-reviewed journals - 41

Research and educational grants and awards:

2020-2023 Russian Foundation for Basic Research, head of the project, “Development of a complex of mathematical models of the attitude strength and change as components of human capital”

2018-2020 The Norwegian Centre for International Cooperation in Education (SIU), CPRU-2017/10043 “Society and Advanced Technology in the Arctic: Norwegian-Russian Triple Helix PhD Course”, project coordinator from Russian side

2015-2016 Grant of the President of Russian Federation for young scientists, head of the project, «Development of methodology and information technologies for experimental analysis of the strategy-proofness of decision-making rules»

2014-2016 Russian Foundation for Basic Research, head of the project, «Experimental study of the efficient mechanisms of resource allocation and active expertise in organizational systems with a variety of behaviors of agents»

2012, Russian Foundation for Basic Research, head of the project, «Design of the effective resource allocation mechanism under transferable utility condition including prototype of informational system for behavioral experiments and implementation»

2010-2012, Russian Foundation for Basic Research, the executor, “Solutions of game-theoretic resource allocation problems”

2007-2009, Russian Foundation for Basic Research, the executor, “Strategy-proof multi-criteria active expertise”

2009, 2011 Moscow Institute of Physics and Technology, IBS Department – “Best supervisor for master degree”

Participation in Editorial Boards:

Member of Editorial Board of peer-reviewed journal “Large-scale Systems Control”

Member of IFAC TC4.5 “Human Machine Systems”

Courses taught:

2005 - present “Control in Organization” course for graduate students of Moscow Institute of Physics and Technology

2007-2008 “Contract Theory” course for graduate students of Moscow Institute of Physics and Technology

2009 – 2010 “Control in Organization” course for graduate students of Moscow Institute of Steel and Alloys

2017 - Invited lecture for finalists of Open HSE Olympics on Game Theory MS and BC students

2018 “Conflicts and cooperation” course for undergraduate students of HSE

Supervision:

2 PhD theses, 21 Master theses, 18 Bachelor theses