Koroliouk Dimitri

Professor of Igor Sikorsky Kyiv Polytechnic University, leading researcher at the Institute of Telecommunications and Global Information Space of the National Academy of Sciences of Ukraine, senior researcher at the Institute of Mathematics of the National Academy of Sciences of Ukraine;
Guest Professor at University Rome-2 “Tor Vergata”, Italy;
Ph.D., and Dr. of Sciences (hab.) in mathematical modeling and computational methods.

Current Research Topics

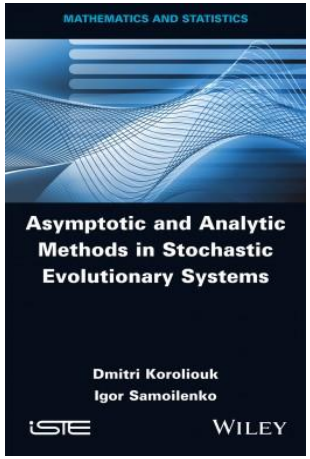
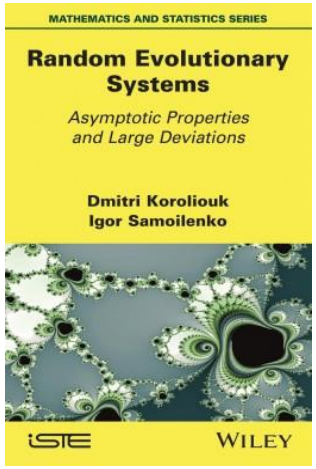
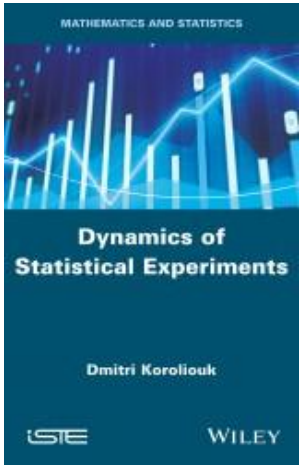
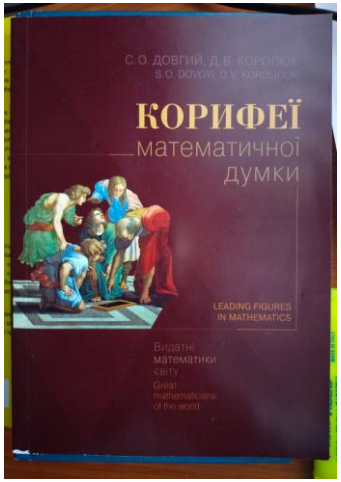
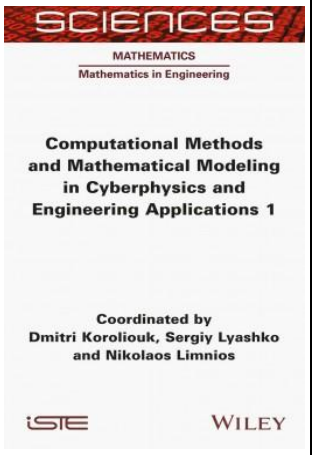
- Neural Networks and Deep Learning Methods
- Mathematical Statistics and Mathematical Modeling
- Computational and Molecular Biology
- Quantum and Computational Chemistry
- Artificial Intelligence for Engineering and Biomedical Applications
- Non-coding RNA Analysis and Modeling
- Biomedical Data Analysis and Statistical Modeling

Main scientific results

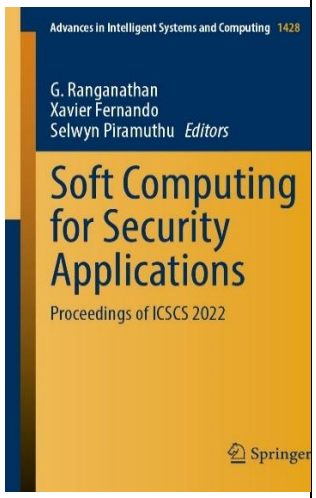
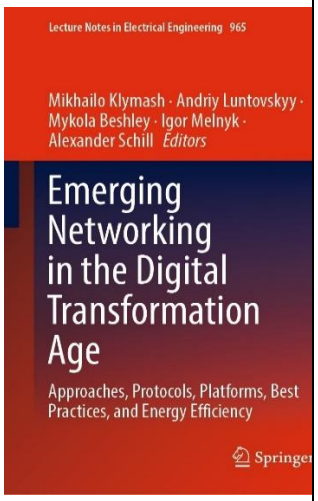
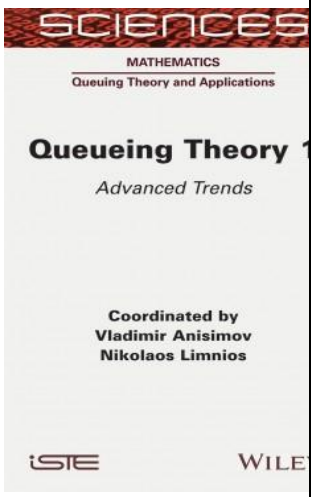
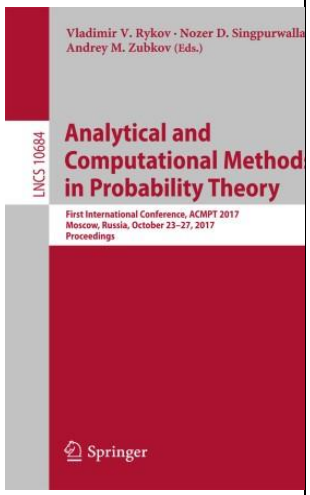
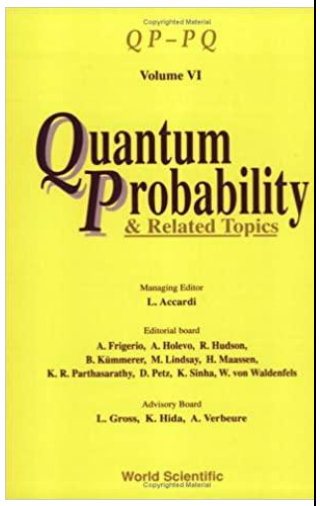
- Developed the theory of statistical experiments - modeling complex systems consisting of a large number of interacting parts based on stochastic evolutionary systems. (Single author monograph WILEY, 2020);
- Investigated the asymptotics of properties and large deviations of stochastic evolutionary systems (2 monographs WILEY, 2021 & 2023);

- Laid the foundations of the theory of Markov chains in quantum probability theory, which is relevant in connection with the development of quantum computing platforms. (Collective monograph WORLD SCIENTIFIC, 1991);
- Built a statistical model of rain formation, which is widely used in radar meteorology (SGS-Thomson (FR), Finmeccanica (IT) consortia);
- Developed and implemented specialized application software packages for statistical data processing for small samples, for planning, analysis, simulation, and statistical optimization of multivariate experiments.

MONOGRAPHS

2023	2021	2020	2021	2024
				

CHAPTERS IN COLLECTIVE MONOGRAPHS

2022	2024	2020	2017	1991
				

- 110 peer-reviewed scientific publications
- 11 electronic devices developed
- 8 new functions implemented in the field of telecommunications / it
- 11 new functional software and algorithms for digital signal processors

10 EUROPEAN PATENTS FOR INDUSTRIAL INVENTION

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 385 359 /

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 28.01.2004 Bulletin 2004/05

(51) Int Cl.⁷: H05B 41/28, H05B 41/282, H05B 37/02

(21) Application number: 03425478.9

(22) Date of filing: 18.07.2003

(84) Designated Contracting States: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
Designated Extension States: AL LT LV MK

(30) Priority: 22.07.2002 IT RM20020388

(71) Applicant: Korolisouk, Dmitri
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• Karas, Grigori
00044 Frascati (RM) (IT)
• Koba, Alexandr
00044 Frascati (RM) (IT)
• Rocchi, Alessandro
00044 Frascati (RM) (IT)

(54) Remote controlled electronic ballast for high pressure gas discharge lamps via power l carrier

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 411 480 /

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 21.04.2004 Bulletin 2004/17

(51) Int Cl.⁷: G07D 5/00

(21) Application number: 03425572.9

(22) Date of filing: 04.09.2003

(84) Designated Contracting States: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
Designated Extension States: AL LT LV MK

(30) Priority: 04.09.2002 IT rm20020440

(71) Applicant: Korolisouk, Dmitri
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• Zakarevski, Stanislav
00044 Frascati (RM) (IT)
• Rocchi, Alessandro
00044 Frascati (RM) (IT)

(54) Method and device for validation of coins and counters

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 467 321 /

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 13.10.2004 Bulletin 2004/42

(51) Int Cl.⁷: G07C 5/08, G08G 1/16

(21) Application number: 04425255.9

(22) Date of filing: 06.04.2004

(84) Designated Contracting States: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR
Designated Extension States: AL HR LT LV MK

(30) Priority: 08.04.2003 IT RM20030160

(71) Applicant: Korolisouk, Dmitri
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(72) Inventors:
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(54) Vehicle information registrator

- Research grant 2021 – 2025, EU Horizon 2020 program, project 101017453 "Development of an artificial intelligence model for prediction in oncology".
- Editor in the field: Mathematics in Engineering – ISTE (London), in direct collaboration with WILEY and ELSEVIER publishers.

Collaboration with Italian universities

- Universita' degli studi di Roma "Tor Vergata" – from 1987 (ex-Roma2-La Romanina) until today
- 2 borse di studio M.A.E. Italiano
- 2 borse di ricerca CNR
- 1 borsa di ricerca NATO Guest
- Universita' degli studi di Trento
- Libera Universita' di Bolzano