

VILNIAUS UNIVERSITETAS
MATEMATIKOS IR INFORMATIKOS FAKULTETAS



VILNIUS UNIVERSITY
FACULTY OF MATHEMATICS AND INFORMATICS

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FACULTY OF MATHEMATICS AND INFORMATICS

<http://www.mif.vu.lt>

Dean Prof. Gediminas Stepanauskas

Phone: +370 5 219 3050 Fax: +370 5 215 1585

gediminas.stepanauskas@mif.vu.lt

DEPARTMENT OF COMPUTER SCIENCE

<http://mif.vu.lt/lt2/struktura/inf>

Head Prof. Rimantas Vaicekaskas

Phone: +370 5 219 3073

rimantas.vaicekaskas@mif.vu.lt

The department supervises the education in informatics for the students in bachelor, master, and doctor programs. Research areas: neural networks, software process, semantics of programs, artificial intelligence, retrieval of logical proofs, error-correcting codes, service oriented frameworks and cloud computing, national language support, numerical modelling and visualization.

Julius Andrikonis. Modal logics.	julius.andrikonis@mif.vu.lt
Darius Baronas. Computer modeling of biosensors.	darius.baronas@mif.vu.lt
Adomas Birštūnas. Multiagent modal logics.	adomas.birstunas@mif.vu.lt
Valdas Dičiūnas. Pattern recognition, neural networks, algorithm complexity.	valdas.diciunas@mif.vu.lt
Arūnas Janeliūnas. Neural net based classification algorithms, object-oriented database systems.	arunas.janeliunas@mif.vu.lt
Vytautas Jančauskas. Optimization, swarm intelligence.	vytautas.jancauskas@mif.vu.lt
Rimantas Kybartas. Machine learning.	rimantas.kybartas@mif.vu.lt
Linus Litvinas. Computer simulation of biosensors, artificial neural networks.	linas.litvinas@mif.vu.lt
Ieva Mitašiūnaitė-Besson. Data mining, bioinformatics.	ieva.mitasiunaite@bti.vu.lt
Antanas Mitašiūnas. Process capability assessment and improvement, qualified electronic signature applications.	antanas.mitasiunas@mif.vu.lt
Stanislovas Leonas Norgėla. Automated theorem proving.	stasys.norgela@mif.vu.lt
Irmantas Radavičius. Graph theory, data structures and algorithms, algorithm analysis.	irmantas.radavicius@mif.vu.lt
Aistis Raudys. Machine learning, pattern recognition, trading systems, financial data analysis, time series.	aistis.raudys@mif.vu.lt
Šarūnas Raudys. Statistical and neural classifiers, machine learning, multiagent systems, data mining.	sarunas.raudys@mif.vu.lt
Liutauras Ričkus. Computer modeling of biosensors.	liutauras.rickus@mif.vu.lt
Gintaras Skersys. Error-correcting codes.	gintaras.skersys@mif.vu.lt

Arūnas Stočkus. Electronic signatures, mobile computing, web technologies, web services, data transfer technologies. `arunas.stockus@mif.vu.lt`

Vladas Tumasonis. Comparison of programming languages, computer algebra, IT standards. `vladas.tumasonis@mif.vu.lt`

Rimantas Vaicekuskas. Modelling of lighting systems with advanced colour rendering properties. Parallel computing. `rimantas.vaicekuskas@mif.vu.lt`

Jonas Žagūnas. Structured conversion of documents. `jonas.zagunas@mif.vu.lt`

Antanas Žilinskas. Optimization, optimal design, visualization of multidimensional data. `antanas.zilinskas@mii.vu.lt`

DOCTORAL STUDENTS

Dalius Krunglevičius. Applications of artificial neural networks, including machine learning, pattern recognition and neuroscience. `dalius.krunglevicius@gmail.com`

Vytautas Valaitis. Artificial neural networks, multi-agent evolving systems. `vytautas.valaitis@mif.vu.lt`

DEPARTMENT OF COMPUTER SCIENCE II

<http://mif.vu.lt/lt2/struktura/komp>

Head Prof. Feliksas Ivanauskas

Phone: +370 5 219 3091

feliksas.ivanauskas@mif.vu.lt

The research areas at the department include methods and applications of nonlinear and computational modelling, computational geometry, methods of computer vision, speech and signal processing, data structures and algorithms, Internet technology and information systems. The results of research are to be applied to problems of computer software, physics and mathematics, natural sciences, as well as to topics of medicine, linguistics, and social sciences.

Margarita Beniušė. Informatics, Internet technologies, computer aided geometry design.

margarita.kazakeviciute@mif.vu.lt

Agnė Brilingaitė. Geo-context in location-based services, spatio-temporal databases, geographic information and intelligent transportation systems.

agne.brilingaite@mif.vu.lt

Linās Bukauskas. Database support for visual data mining, indexing of visible objects, information retrieval spatio-temporal databases, ER modelling.

linas.bukauskas@mif.vu.lt

Linās Būtėnas. Context extraction from semi-structural and textual information.

linas.butenas@mif.vu.lt

Alminas Čivilis. Managing moving objects in location-based services, spatial data mining, big data and geographic information systems.

alminas.civilis@mif.vu.lt

Jolita Ignatavičiūtė. Stochastic methods in image processing.

jolita.ignataviciute@mif.vu.lt

Feliksas Ivanauskas. Numerical analysis of nonlinear diffusion equations, modelling physical problems.

feliksas.ivanauskas@mif.vu.lt

Algimantas Juozapavičius. Algorithms of computer vision and computer graphics, applications in medical imaging and Internet-based systems.

algimantas.juozapavicius@mif.vu.lt

Simonas Kareiva. Stereoscopy and stereometry, surface reconstruction, big data analytics, digital wireless communications.

simonas.kareiva@mif.vu.lt

Kęstutis Karčiauskas. Computer-aided geometric design, multisided rational surface patches.

kestutis.karciauskas@mif.vu.lt

Pijus Kasparaitis. Speech synthesis.

pijus.kasparaitis@mif.vu.lt

Rimvydas Krasauskas. Computer-aided geometric design, applications of algebraic geometry and topology.

rimvydas.krasauskas@mif.vu.lt

Eduardas Kutka. Computer networks, virtualization technologies, distributed, GRID and cloud computing, network calculus.

eduardas.kutka@mif.vu.lt

Tomas Gžegožas Lipnevičius. Computer vision and medical imaging.

tomas.lipnevicius@mif.vu.lt

Rytis Malakauskas. Computer networks, virtualization technologies, distributed, GRID and cloud computing, network calculus.

rytis.malakauskas@mif.vu.lt

Ramūnas Markauskas. Computer vision in medical imaging.

ramunas.markauskas@mif.vu.lt

Tadas Meškauskas. Numerical methods for partial differential models, mathematical and numerical modeling of electrochemical phenomena.

tadas.meskauskas@mif.vu.lt

Kazimieras Mickus. Digital analysis of medical imaging.

kazimieras.mickus@mif.vu.lt

Kazimieras Navickis. Intrinsic normalizations of distributions of flags on Grassmannians of affine spaces.

kazimieras.navickis@mif.vu.lt

Vilius Okockis.

vilius.okockis@mif.vu.lt

Mantas Puida. Computer modelling of structural innovations in biosensors.

`mantas.puida@mif.vu.lt`

Valdas Rapševičius. Computational high energy physics, ontology and rule-based expert systems, machine learning, medical imaging.

`valdas.rapsevicius@mif.vu.lt`

Svajūnas Sajavičius. Numerical solution of PDEs with nonlocal conditions, finite-difference schemes, meshless methods.

`svajunas.sajavicius@mif.vu.lt`

Jelena Tamulienė. Ab initio geometric and electronic structure computations on Grid or Cloud.

`jelena.tamuliene@tfai.vu.lt`

Severinas Zubė. Algebraic geometry, curves and surfaces, computer-aided geometric design, subdivision, number theory.

`severinas.zube@mif.vu.lt`

DEPARTAMENT OF DIDACTICS OF MATHEMATICS AND INFORMATICS

<http://mif.vu.lt/lt2/struktura/mim>

Head Prof. Eugenijus Stankus
Phone: +370 5 219 3086
eugenijus.stankus@mif.vu.lt

The department supervises mathematics and informatics teachers training. The research areas of the department include the mathematics and informatics education at secondary school, college, and university levels.

Antanas Apynis. Game theory, social decisions, didactics of mathematics.

antanas.apynis@mif.vu.lt

Valentina Dagienė. Computer science, information technology, didactics of informatics, contests in informatics and information technology.

valentina.dagiene@mii.vu.lt

Aistė Eljio. Statistical educational surveys and their analysis, sample design issues, mathematically gifted students.

aiste.elijio@mif.vu.lt

Edmundas Gaigalas. Quadratic forms, problems of mathematical education.

edmundas.gaigalas@mif.vu.lt

Tatjana Jevsikova. E-learning, ICT in education, software localization.

tatjana.jevsikova@mii.vu.lt

Romualdas Kašuba. Development of mathematical skill, modern elementary mathematics, mathematical contests, mathematics and arts.

romualdas.kasuba@mif.vu.lt

Ričardas Juozas Kudžma. Mathematical analysis, actuarial mathematics, didactics of mathematics, semiotics.

ricardas.kudzma@mif.vu.lt

Edmundas Mazėtis. Geometry, didactics of mathematics.

edmundas.mazetis@mif.vu.lt

Aivaras Novikas. Number theory, mathematical contests.

aivaras.novikas@mif.vu.lt

Šarūnas Repšys. Dynamic models of physiological structure of population.

sarunas.repsys1@mif.vu.lt

Eugenijus Stankus. Analytic number theory, probabilistic number theory, didactics of mathematics.

eugenijus.stankus@mif.vu.lt

DEPARTMENT OF DIFFERENTIAL EQUATIONS AND NUMERICAL ANALYSIS

<http://mif.vu.lt/lt2/struktura/dlsm>

Head Prof. Konstantinas Pileckas
Phone: +370 5 219 3084
konstantinas.pileckas@mif.vu.lt

Professors of the department give courses on differential equations (ODEs and PDEs), numerical analysis, optimization methods, applied mathematics, calculus (at the faculties of Economics, Chemistry, and Natural Sciences), and various more specialized lectures. The main research fields of the department are ordinary and partial differential and integrodifferential equations, their numerical analysis, and applied mathematics.

- Algirdas Ambrazevičius.** Solvability of partial differential equations of parabolic type.
algirdas.ambrazevicius@mif.vu.lt
- Vaclovas Daukšas.** Optimization methods.
vaclovas.dauksas@mif.vu.lt
- Aleksas Domarkas.** Solvability of nonlinear Schrödinger-type equations.
aleksas.domarkas@mif.vu.lt
- Pranas Katauskis.** Numerical analysis of nonlinear partial differential equations of parabolic type.
pranas.katauskis@mif.vu.lt
- Kristina Kaulakytė.** Mathematical models of viscous fluids.
kristina.kaulakyte@mif.vu.lt
- Algis Kavaliauskas.** Asymptotic analysis of dynamic systems.
algis.kavaliauskas@mif.vu.lt
- Neringa Kloviene.** Mathematical models of non-Newtonian fluids.
neringa.kloviene@mif.vu.lt
- Arvydas Kregždė.** Mathematical modelling of sovereign risk.
arvydas.kregzde@mif.vu.lt
- Mečislavas Meilūnas.** Numerical analysis of parabolic problems.
mecislavas.meilunas@mif.vu.lt
- Konstantinas Pileckas.** Elliptic differential equations, Navier–Stokes equations, asymptotical methods.
konstantinas.pileckas@mif.vu.lt
- Gintaras Puriuškis.** Schrödinger-type differential equations.
gintaras.puriuskis@mif.vu.lt
- Stasys Rutkauskas.** Elliptic equations, boundary value problems.
stasys.rutkauskas@mif.vu.lt
- Vladas Skakauskas.** Models of biopopulations and surface reactions.
vladas.skakauskas@mif.vu.lt
- Mindaugas Skujus.** Asymptotic conditions at infinity for non-stationary Stokes and Navier–Stokes problems.
mindaugas.skujus@mif.vu.lt
- Artūras Štikonas.** Nonlocal problems.
arturas.stikonas@mif.vu.lt
- Olga Štikonienė.** Numerical methods for nonlinear PDEs and problems with nonlocal boundary conditions.
olga.stikoniene@mif.vu.lt

DOCTORAL STUDENTS

- Alicija Eismontaitė.** Non-stationary methods of evolutionary equations.
alicija.eismontaite@mif.vu.lt
- Rimgaudas Mazgelis.**
rimgaud@hotmail.com
- Jurij Novickij.** Finite difference schemes for hyperbolic equations with nonlocal conditions.
jurij.novickij@mif.vu.lt
- Gailė Paukšlaitė.** Generalized Green's functions.
gaile.paukstaite@mif.vu.lt

DEPARTMENT OF ECONOMETRIC ANALYSIS

<http://mif.vu.lt/lt2/struktura/eka>

Head Prof. Alfredas Račkauskas

Phone: +370 5 219 3076

alfredas.rackauskas@mif.vu.lt

Research areas of the department include financial econometrics, macroeconometrics, time series analysis, functional data analysis, limit theorems in probability and its applications to statistics and econometrics, bootstrap and other resampling methods in statistics and econometrics.

Dmitrij Celov. Long-memory time series models in macroeconomics.

dmitrij.celov@mif.vu.lt

Vydas Čekanavičius. Signed compound Poisson approximations, Kolmogorov's problem.

vydas.cekanavicius@mif.vu.lt

Virmantas Kvedaras. Macroeconometrics.

virmantas.kvedaras@mif.vu.lt

Remigijus Lapinskas. Regression methods in ecology and medicine.

remigijus.lapinskas@mif.vu.lt

Remigijus Leipus. Financial mathematics and econometrics, time series analysis, insurance mathematics.

remigijus.leipus@mif.vu.lt

Aušra Maldeikienė. Modern economic thought.

ausra.maldeikiene@mif.vu.lt

Raimondas Malukas. Financial econometrics.

raimondas.malukas@mii.vu.lt

Vytautas Maniušis. Empirical characteristic functions.

vytautas.maniusis@mif.vu.lt

Jurgita Markevičiūtė. Functional central limit theorems for nearly nonstationary processes.

jurgita.markeviciute@mif.vu.lt

Gediminas Murauskas. Information systems, linear and generalized linear mixed models and their applications.

gediminas.murauskas@mif.vu.lt

Rimas Norvaiša. Probability theory, financial analysis, financial mathematics, mathematical economics.

rimas.norvaisa@mii.vu.lt

Milda Pranckevičiūtė. Financial econometrics.

milda.pranckeviciute@mif.vu.lt

Marijus Radavičius. Nonparametrical and adaptive estimation, econometrics, classification, image analysis.

marijus.radavicius@mii.vu.lt

Irma Rastėnė. Testing epidemic change in autoregressive processes.

irma.rastene@mif.vu.lt

Alfredas Račkauskas. Probability limit theorems in functional spaces, applications in statistics and econometrics.

alfredas.rackauskas@mif.vu.lt

Vaidotas Zemlys. Functional limit theorems for summation processes.

vaidotas.zemlys@mif.vu.lt

DOCTORAL STUDENTS

Lina Dindienė. Extreme value theory, insurance mathematics.

lina_dindiene@yahoo.com

Jonas Jarutis. Functional data analysis in e-commerce.

jonas.jarutis@mif.vu.lt

Laurynas Naruševičius. Macroeconometric modelling.

laurynas.narusevicius@mif.vu.lt

Agnė Reklaitė. Factorial and structural models in econometrics.

agne.reklaite@mif.vu.lt

Jūratė Šliogerė. Approximation of Markov dependent sums of discrete random variables.

jurate.sliogere@mif.vu.lt

Mantas Tartėnas. Default prediction models.

mantas.tartenas@gmail.com

DEPARTMENT OF MATHEMATICAL ANALYSIS

<http://mif.vu.lt/lt2/struktura/mak>

Head Prof. Vygantas Paulauskas

Phone: +370 5 219 3083

vygantas.paulauskas@mif.vu.lt

Traditionally, the department gives courses in mathematical analysis (calculus) and related subjects. In recent years, the department, as responsible for bachelor and master programs in actuarial and financial mathematics, became more oriented toward applications and is offering main courses in actuarial and financial mathematics. The research areas of the department include heavy tailed distributions, time series, econometric and actuarial models, stochastic analysis.

Gintaras Bakštys. Actuarial mathematics. gintaras.bakstys@mif.vu.lt

Almantas Juozulynas. Very sparse random matrices and their spectrum.

almantas.juozulynas@mif.vu.lt

Antanas Lenksas. Numerical solution of SDEs.

antanas.lenksas@mif.vu.lt

Kęstutis Liubinskas. Convergence rates in limit theorems of probability theory.

kestutis.liubinskas@mif.vu.lt

Vigirdas Mackevičius. Stochastic analysis, stochastic numerics.

vigirdas.mackevicius@mif.vu.lt

Martynas Manstavičius. Levy processes, path properties of random processes.

martynas.manstavicius@mif.vu.lt

Vygantas Paulauskas. Approximations of multidimensional stable laws, autoregressive models, random fields, tail index estimation, operator theory. vygantas.paulauskas@mif.vu.lt

Aleksandras Ernestas Plikusas. Sampling in official statistics, regression ratio estimators.

aleksandras.plikusas@mii.vu.lt

Donata Puplinskaitė. Aggregation of infinite-variance random processes.

donata.puplinskaite@mif.vu.lt

Aldona Skučaitė. Actuarial mathematics, stochastic modeling of insurance.

aldona.skucaite@mif.vu.lt

Jonas Šiaulyš. Actuarial mathematics, risk processes, probabilistic number theory.

jonas.siaulyš@mif.vu.lt

DOCTORAL STUDENTS

Emilija Bernackaitė. Actuarial mathematics. emilija.bernackaite@ergo.lt

Julius Damarackas. Limit theorems and measures of dependence for random processes and fields with infinite variance. julius.damarackas@mif.vu.lt

Eglė Ignatavičiūtė. Risk theory, capital allocation. ignataviciute.egle@gmail.com

Agneška Korvel. Actuarial mathematics. agneska.korvel@gmail.com

Olga Navickienė. Actuarial mathematics. sajanole@gmail.com

DEPARTMENT OF MATHEMATICAL COMPUTER SCIENCE

<http://mif.vu.lt/lt2/struktura/matinf>

Head Prof. Gediminas Stepanauskas

Phone: +370 5 219 3050

gediminas.stepanauskas@mif.vu.lt

The department was established in 2002 in order to consolidate teaching and research activities in the areas of information theory, cryptography, algorithms, and discrete mathematics. The research focuses on probabilistic analysis of number theoretical structures, combinatorial statistics, and randomized algorithms.

Giedrius Alkauskas. Analytic number theory, structural constants.

giedrius.alkauskas@mif.vu.lt

Gintautas Bareikis. Distributions of the arithmetical functions.

gintautas.bareikis@mif.vu.lt

Mindaugas Bloznelis. Probability limit theorems, combinatorial statistics, random graphs.

mindaugas.bloznelis@mif.vu.lt

Saulius Gražulis. Crystallography databases.

saulius.grazulis@bti.vu.lt

Irus Grinis. Polyvalent interactions in biological systems.

irus.grinis@mif.vu.lt

Algirdas Mačiulis. Mean values and limit theorems for arithmetic functions.

algirdas.maciulis@mif.vu.lt

Vilius Stakėnas. Probabilistic number theory, functions of Farey fractions.

vilius.stakenas@mif.vu.lt

Gediminas Stepanauskas. Mean values and limit theorems for arithmetic functions.

gediminas.stepanauskas@mif.vu.lt

Vytas Zacharovas. Probabilistic combinatorics, analysis of algorithms.

vytas.zacharovas@mif.vu.lt

DOCTORAL STUDENTS

Mindaugas Kepalas. Random graphs and algorithms.

mindaugas.kepalas@mif.vu.lt

Laura Žvinytė. Limit distributions of sums of additive functions.

l.zvinyte@eif.viko.lt

DEPARTMENT OF MATHEMATICAL STATISTICS

<http://mif.vu.lt/lt2/struktura/msk>

Head Prof. Vytautas Kazakevičius

Phone: +370 5 219 3065

vytautas.kazakevicius@mif.vu.lt

The main research areas at the department are theoretical and applied mathematical statistics, reliability and survival analysis, stochastic analysis, limit theorems in probability theory and mathematical statistics.

Vilijandas Bagdonavičius. Reliability theory, mathematical statistics, survival analysis.

vilijandas.bagdonavicius@mif.vu.lt

Jeremy Daniel Besson. Data Mining, innovation. contact.jeremy.besson@gmail.com

Rimantas Eidukevičius. Mathematical modelling, experimental planning and statistical analysis in oncology. rimantas.eidukevicius@mif.vu.lt

Vytautas Kazakevičius. Mathematical statistics, nonlinear stochastic dynamic systems.

vytautas.kazakevicius@mif.vu.lt

Julius Jonas Kruopis. Mathematical statistics, quality control.

julius.kruopis@mif.vu.lt

Rūta Levulienė. Mathematical statistics, reliability, survival analysis.

ruta.levuliene@mif.vu.lt

Viktor Skorniakov. Mathematical statistics, time series. viktor.skorniakov@mif.vu.lt

Pranas Vaitkus. Large-deviation probabilities, neural networks, nonlinear time series.

pranas.vaitkus@mif.vu.lt

Marijus Vaičiulis. Statistical analysis of stochastic processes.

marijus.vaiciulis@mii.vu.lt

DOCTORAL STUDENTS

Simona Staskevičiūtė.

simona.staskeviciute@gmail.com

DEPARTAMENT OF PROBABILITY THEORY AND NUMBER THEORY

<http://mif.vu.lt/en2/ttsk>

Head Prof. Antanas Laurinčikas
Phone: +370 5 219 3070
antanas.laurincikas@mif.vu.lt

Professors of the department give courses in algebra, number theory, probability theory and discrete mathematics. Their main scientific interests are related to the algebraic, analytic, and probabilistic number theory and combinatorics. A great attention is also paid to neighboring problems of probability theory, to the development of Lithuanian mathematical thought, and to popularization of mathematical sciences.

Paulius Drungilas. Algebraic numbers, polynomials. paulius.drungilas@mif.vu.lt
Artūras Dubickas. Algebraic numbers, distribution modulo 1. arturas.dubickas@mif.vu.lt
Ramūnas Garunkštis. Analytic number theory, zeta-functions. ramunas.garunkstis@mif.vu.lt
Andrius Grigutis. Distribution of zeros of zeta-functions. andrius.grigutis@mif.vu.lt
Jonas Jankauskas. Algebraic numbers, polynomials. jonas.jankauskas@mif.vu.lt
Henrikas Jasiūnas. History of mathematics. henrikas.jasiunas@mif.vu.lt
Algirdas Javtokas. Non-classical zeta-functions. algirdas.javtokas@mif.vu.lt
Justas Kalpokas. Analytic number theory. justas.kalpokas@mif.vu.lt
Laima Kaziulytė. Analytic number theory. laima.kaziulyte@mif.vu.lt
Audrius Kačėnas. Value distribution of the Riemann zeta-function. audrius.kacenas@mif.vu.lt
Antanas Laurinčikas. Analytic and probabilistic number theory, value distribution of zeta-functions. antanas.laurincikas@mif.vu.lt
Eugenijus Manstavičius. Analytic and probabilistic combinatorics, probabilistic number theory. eugenijus.manstavicius@mif.vu.lt
Paulius Šarka. Number theory, additive combinatorics. paulius.sarka@mif.vu.lt
Jonas Šiurys. Number theory, recurrence sequences. jonas.siurys@mif.vu.lt
Albertas Zinevičius. Distribution of lattice points, hyperelliptic curves. albertas.zinevicius@mif.vu.lt

DOCTORAL STUDENTS

Jovita Atstopenė. Universality of composite functions. jovita.ras@gmail.com
Sondra Černigova. The periodic zeta-function. sondra.cernigova@gmail.com
Kęstutis Janulis. Universality of zeta functions. kestutis.janulis@mif.vu.lt
Erikas Karikovas. Investigation of properties of zeta-functions. erikas.karikovas@mif.stud.vu.lt
Laimonas Meška. Modification of universality theorems. laimoniuxx@gmail.com
Dmitrij Mochov. Universality of non-classical zeta-functions. dmochov@gmail.com
Robertas Petuchovas. Analytic theory of permutations. robertas.petuchovas@mif.vu.lt
Audronė Rimkevičienė. Value-distribution of periodic Hurwitz zeta-function. audronerim@gmail.com
Vytautas Stepas (Stepanauskas). Additive functions on permutations. vytautas.stepas@mif.vu.lt
Raivydas Šimėnas. Analytic number theory. raivydas.simenas@mif.vu.lt

Gražvydas Šemetulskis. Algebraic and combinatorial number theory.

`grazvydas.semetulskis@mif.vu.lt`

Rokas Tamošiūnas. Analytic number theory.

`rokas.tamosiunas@mif.vu.lt`

DEPARTMENT OF SOFTWARE ENGINEERING

<http://mif.vu.lt/lt2/struktura/ps>

Head Prof. Romas Baronas

Phone: +370 5 219 3064

romas.baronas@mif.vu.lt

The department supervises the software engineering study program. The research areas of the department include software process, software engineering methods and tools, teaching software engineering, software quality management, business process modelling, information systems modelling, human-computer interaction, open queuing networks, message switching systems, computational modelling of physical-chemical processes, information security, electronic signature.

Andrius Adamonis. Support and maintenance process modelling.

andrius.adamonis@mif.vu.lt

Vytautas Ašeris. Computer simulation of nonlinear diffusion and reaction processes.

vytautas.aseris@mif.vu.lt

Romas Baronas. Computer simulation of nonlinear diffusion and reaction processes.

romas.baronas@mif.vu.lt

Donatas Čiukšys. Business process ontology, business process knowledge reuse, software systems architecture.

donatas.ciuksys@mif.vu.lt

Vytautas Čyras. Legal informatics, compliance, contracts in SOA.

vytautas.cyras@mif.vu.lt

Sigitas Dapkūnas. Information system design, evaluation of software products, service oriented architecture.

sigitas.dapkunas@mif.vu.lt

Viktoras Golubevas. Programming languages.

viktoras.golubevas@mif.vu.lt

Raimondas Jasevičius. Industrial engineering, human biology, computing in mathematics, natural science, engineering and medicine.

raimondas.jasevicius@vgtu.lt

Vaidas Jusevičius. Electronic payment systems, e-commerce fraud detection techniques.

vaidas.jusevicius@mif.vu.lt

Vytautas Karpavičius.

vytautas.karpavicius@mif.vu.lt

Andrius Kurtinaitis. Computer models of physical processes, visualization of scientific data Database management systems.

andrius.kurtinaitis@mif.vu.lt

Kristina Lapin. Human computer interaction (HCI), user experience design (UED), teaching of HCI and UED, mobile interfaces.

kristina.lapin@mif.vu.lt

Žilvinas Ledas. Computational modeling of bacterial behavior and augmented reality.

zilvinas.ledas@mif.vu.lt

Audronė Lupeikienė. Information systems, service-oriented architecture, software engineering.

audrone.lupeikiene@mii.vu.lt

Saulius Minkevičius. System theory.

saulius.minkevicius@mii.vu.lt

Elita Pakalnackienė. Methods of conceptual modeling, their enrichment with integrity requirements.

elita.pakalnackiene@mif.vu.lt

Stasys Peldžius. Software process modelling, assessment and improvement.

stasys.peldzius@mif.vu.lt

Karolis Petrauskas. Computer simulation of nonlinear diffusion and reaction processes.

karolis.petrauskas@mif.vu.lt

Tomas Plankis. Image analysis, programming in Windows API.

tomas.plankis@mif.vu.lt

Viačeslav Pozdniakov. Functional programming, category theory.

viaceslav.pozdniakov@mif.vu.lt

Saulius Ragaišis. Software process modelling, assessment and improvement, software engineering education, electronic signature and electronic documents.

saulius.ragaisis@mif.vu.lt

Tomas Rukšėnas.

tomas.ruksenas@mif.vu.lt

Darius Sauliūnas.

darius.sauliunas@mif.vu.lt

Laura Savičienė. Software process improvement, aircraft collision probability and decision support system.

laura.saviciene@mif.vu.lt

Albertas Šermokas. Geographical information systems, analysis and modelling Information system: design, architecture, implementation, project management.

albertas.sermokas@mif.vu.lt

Ivona Šurpicka. Requirements engineering, agile software development methods.

ivona.surpicka@mif.vu.lt

Karolis Uosis.

karolis.uosis@mif.vu.lt

Asta Vaitkevičienė.

asta.vaitkeviciene@mif.vu.lt

Vytautas Valaitis. Artificial neural networks, multi-agent evolving systems.

vytautas.valaitis@mif.vu.lt

Julija Vysockytė. Requirements analysis and specification, software process modeling.

julija.vysockyte@insoft.lt

DOCTORAL STUDENTS

Edvinas Greičius.

edvinas.greicius@mif.vu.lt

Linus Litvinas. Computer simulation of biosensors, artificial neural networks.

linas.litvinas@mif.vu.lt

Liutauras Ričkus. Computer modeling of biosensors.

liutauras.rickus@mif.vu.lt

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2. **Stasys Peldžius**, *Software process assessment using multiple process assessment models*, advisor prof. Romas Baronas.
3. **Mindaugas Skujus**, *Asymptotic conditions at infinity for the time-periodic Stokes problem set in domains with cylindrical outlets to infinity*, advisor prof. Konstantinas Pileckas.

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RESEARCH GRANTS AND AWARDS

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2. **Romas Baronas**, Developing computational techniques, algorithms and tools for efficient simulation and optimization of biosensors of complex geometry, 2011–2015 (finansuojamas Europos socialinio fondo lėšomis pagal visuotinės dotacijos priemonę).
3. **Romas Baronas, Raimondas Jasevičius**, Bakterijų sąveikos skaitinis modeliavimas diskrečiųjų elementų metodu, 2012–2014 (ES struktūrinių fondų lėšomis finansuota podoktorantūrinė stažuotė).
4. **Mindaugas Bloznelis**, Mathematical models of real networks and their analysis, 2013–2014 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
5. **Paulius Drungilas**, Algebrainių skaičių sekos ir jų aukščiai, 2013–2015 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
6. **Ramūnas Garunkštis**, Skaičių teorijos analizinių funkcijų reikšmių pasiskirstymai, 2012–2014 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
7. **Algimantas Juozapavičius**, European Grid Initiative: Integrated Sustainable Pan-European Infrastructure for Researchers in Europe (EGI-InSPIRE), 2010–2014 (ES 7-oji bendroji programa).
8. **Justas Kalpokas, Antanas Laurinčikas**, Dzeta funkcijų reikšmių pasiskirstymas, 2013–2015 (ES struktūrinių fondų lėšomis finansuota podoktorantūrinė stažuotė).
9. **Vygantas Paulauskas**, Ekstremalių reikšmių indekso vertinimas, 2013–2014 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
10. **Aistis Raudys**, Skaitinis intelektas portfelio algoritmų kūrime finansinių sukrėtimų laikotarpiams, 2012–2014 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
11. **Šarūnas Raudys**, Didelių dimensijų ir mažų duomenų problemos biomedicinos ir finansiniuose klasifikavimo uždaviniuose, 2013–2015 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
12. **Donatas Surgailis**, Netiesinė ilgoji atmintis, sunkios uodegos ir agregavimas, 2013–2015 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
13. **Rimantas Vaicekauskas**, Tausojanti ir išmanioji meno kūrinų apšvietimo technologija, 2012–2014 (LMT: Mokslininkų iniciatyva vykdomų mokslinių tyrimų projektai).
14. **Rimantas Vaicekauskas**, Pranciškus Vitta, Optimizuotų spektrinių parametru kietakūnio apšvietimo technologijų kūrimas nišiniams taikymams, 2012–2014, (ES struktūrinių fondų lėšomis finansuota podoktorantūrinė stažuotė).

PATENTS

1. **Feliksas Ivanauskas**, Michael Shur, **Rimantas Vaicekauskas**, Petras Henrikas Vaitkevičius, Artūras Žukauskas, Multiwavelength solid-state lamps with an enhanced number of rendered colors, *U.S. Patent No 8771029 B2*.

SCIENTIFIC CONTACTS

PARTICIPATION IN INTERNATIONAL PROJECTS

1. **Konstantinas Pileckas**, Asymptotic Problems and Applications, Lithuanian-Swiss programme Research and Development, project No. CH-3-ŠMM-01/01. 2012 – 2016.

RESEARCH VISITS

1. **Mindaugas Bloznelis**, Ulm Germany, german probability days, March, 3–7.
2. **Mindaugas Bloznelis**, Joint Meeting of the German Mathematical Society (DMV) and the Polish Society (PTM) Poznan and 5th Polish combinatorial conference, Bedlewo, September, 16–28.
3. **Mindaugas Bloznelis**, Attending combinatoric and probability seminars at Queen Mary university of London, September 29–November 10.
4. **Mindaugas Bloznelis**, Attending combinatoric and probability seminars at Queen Mary university of London, November, 18–29.
5. **Mindaugas Bloznelis**, Attending combinatoric and probability seminars at Queen Mary university of London, December, 12–31.
6. **Kristina Kaulakytė**, University of Zurich, Switzerland, July 1 – December 31.
7. **Neringa Klovienė**, University of Zurich, Switzerland, March 24–28.
8. **Eugenijus Manstavičius**, Meeting of Presidents of European Mathematical Societies, Istanbul, Turkey. April 10–13.
9. **Konstantinas Pileckas**, University of Zurich, Switzerland, December 10–14.
10. **Konstantinas Pileckas**, University of Kassel, Germany, December 15–16.
11. **Raivydas Šimėnas**, Würzburg University, November 24–30.
12. **Vytas Zacharovas**, Institute of Statistical Science, Academia Sinica, Taiwan, January 1–24.
13. **Albertas Zinevičius**, Summer School-Conference “Hyperelliptic curves and cryptography”, University of Information Science and Technology “St. Paul The Apostle”, Ohrid, Macedonia, August 25 – September 5.

FOREIGN VISITORS

1. Prof. Michel Chipot, University of Zurich, Switzerland, June–December.
2. Prof. Itzhak Fouxon, Weizmann Institute of Science, Izrael, October.
3. Prof. Alexander Iksanov, Kiev National University, Ukraine, August 1–14.
4. Victoria Zhuravleva, Moscow University, Russia, October 6.

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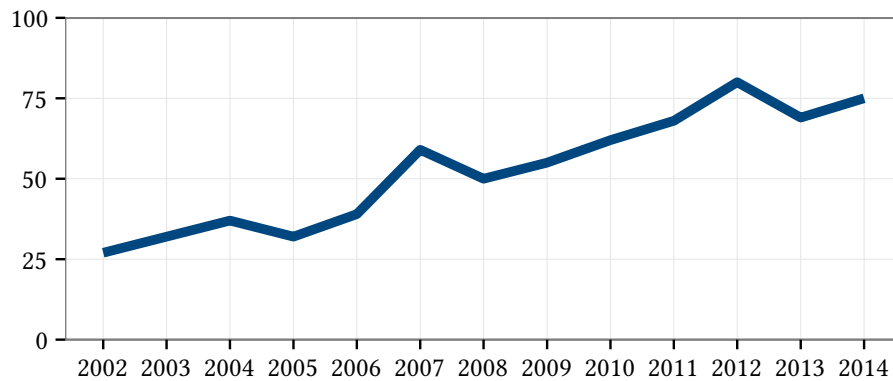
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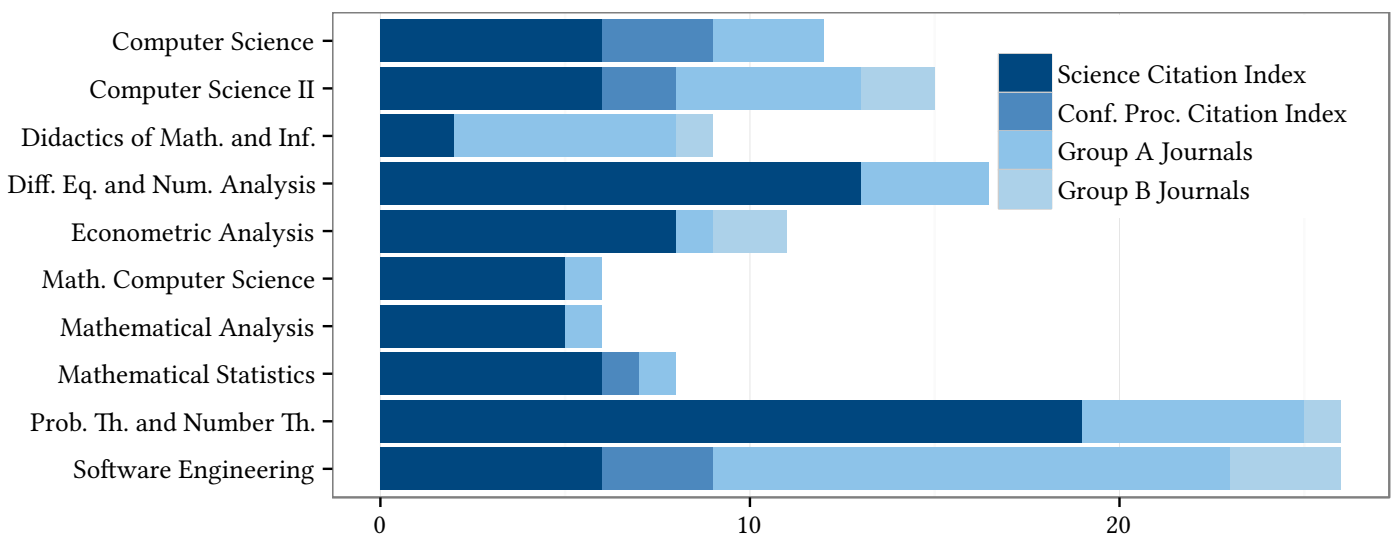
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