**STATISTICS and PROBABILITY GROUP**

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**Head** – Prof. Habil. Dr. Kęstutis Kubilius

***STAFF***

**Principal researchers:** Prof. Habil. Dr. Kęstutis Kubilius

Dr. Saulius Norvidas

Dr. Stasys Rutkauskas (until 28 October)

**Senior researchers**:

Dr. Otera Daniele Ettore

Dr. Marijus Radavičius

Prof. Habil. Dr. Rimantas Rudzkis

Dr. Marijus Vaičiulis

**Researchers:** Dr. Arvydas Astrauskas

Dr.Andrius Čiginas

Dr. Dainius Dzindzalieta

Dr. Valentas Kurauskas

**Specialists:**

**Affiliated** **researchers**:

Dr.Juozas Juvencijus Mačys

Prof. Dr Remigijus Mikulevičius

Prof. Habil. Dr. Jonas Kazys Sunklodas

**Emerites:**

Professor Emeritus Mifodijus Sapagovas

**Doctoral students:**

Monika Lapėnaitė Gedvilė

Aidas Medžiūnas

Rūta Užupytė

***RESEARCH INTERESTS:*** statistical inference for long memory processes, statistical hypothesis testing***,*** heavy tails, self-similar processes, rough paths, econometrics, biostatistics, finite population statistics and statistical analysis of data, extremal problems in harmonic analysis, random graphs, combinatorics, discrete mathematics, algebraic geometry.

**RESEARCH PROJECTS CARRIED OUT IN 2018**

**Projects Supported by University Budget**

**Analysis of probabilistic models and the study of asymptotic properties**. Prof. Habil. Dr. K. Kubilius. 2017–2019.

Several inequalities of the Littlewood – Offord type for arbitrary groups are established. The resulting inequalities are optimal if the base group contains an element of a certain order.

The stabilityof a finite difference scheme for Schrödinger, Kuramoto–Tsuzuki and parabolic equations, subject to non-local conditions with complexcoefficients, is dealt with. The stability conditions, which have to be met by complex coefficients in non-local conditions, have been determined.

Main publications:

1. **Kubilius, Kęstutis;** Mishura, Yuliya; Ralchenko, Kostiantyn. Parameter estimation in fractional diffusion models. Cham : Springer International Publishing, 2017. XIX, 390 p. (Bocconi & Springer Series, ISSN 2039-1471, eISSN 2039-148X ; vol. 8). ISBN 9783319710297. eISBN 9783319710303. DOI: 10.1007/978-3-319-71030-3
2. **Sapagovas, Mifodijus;** Meškauskas, Tadas; Ivanauskas, Feliksas. Influence of complex coefficients on the stability of difference scheme for parabolic equations with non-local conditions // Applied mathematics and computation New York : Elsevier Science. ISSN 0096-3003. eISSN 1873-5649. 2018, Vol. 332, p. 228-240. DOI: 10.1016/j.amc.2018.03.072

***OTHER SCIENTIFIC ACTIVITIES***

**Prof. K. Kubilius –**

* co-editor-in-chief of the *Modern Stochastics: Theory and Applications*, <https://www.i-journals.org/vtxpp/VMSTA/> ;
* editorial board member of the *Lithuanian Mathematical Journal*, <http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard>;
* editorial board member of the *Mathematical Modelling and Analysis*,  [http://inga.vgtu.lt/~art/](http://inga.vgtu.lt/%7Eart/) ;
* board member of the Lithuanian Mathematical Society, <http://www.mif.vu.lt/lmd/index_en.html>.
* Member of 12-th International Vilnius conference on Probability theory and mathematical statistics and 2018 IMS Annual meeting on Probability and statistics <http://ims-vilnius2018.com/organization/>; Organizer of invited session on this <http://ims-vilnius2018.com/invited-sessions/conference>

**Prof. S. Norvidas –**

* editorial board member of the *Lithuanian Mathematical Journal*, [http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard](http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard%20).

**Doc. M. Radavičius –**

* editorial board member of the *Lithuanian Mathematical Journal*, http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard;
* editorial board member of the *Modern Stochastics: Theory and Applications*,<https://www.i-journals.org/vtxpp/VMSTA/> **.**

**Prof. R. Rudzkis –**

* editorial board member of the *Lithuanian Mathematical Journal*, http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard;
* editorial board member of the journal *Прикладная эконометрика,*

http://www.appliedeconometrics.ru/r/board/;

* editorial board member of the journal *Lietuvos statistikos darbai* (*Statistics Journal*), http://www.statisticsjournal.lt;
* editorial board member of the journal *Pinigų studijos* (*Monetary Studies*), http://www.lb.lt/pinigu\_studijos\_redkolegija.

**M. Sapagovas –**

* editorial board member of the *Lithuanian Mathematical Journal,* http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard;
* editorial board member of  the journal *Nonlinear Analysis: Modelling and Control,* [*https://www.mii.lt/NA/*](https://www.mii.lt/NA/)

**S. Rutkauskas –**

* editorial board member of  the *Lithuanian Mathematical Journal,* http://www.springer.com/mathematics/journal/10986?detailsPage=editorialBoard;
* editorial board member of  the journal *Mathematical Modelling and Analysis,* [http://inga.vgtu.lt/~art/](http://inga.vgtu.lt/%7Eart/) .