Автобиография
доц. дн Младен Савов

Адрес и контакти

Име:	Младен Светославов Савов
Адрес:	ул. „Акад. Георги Бончев“, бл.8, ет.4, ст. 427, 1113 София
Телефон:	0898 204169
Ел. поща:	mladensavov@math.bas.bg

Академична кариера

2017-	доцент към Институт по математика и информатика, Българска академия на науките
2015-2017	изследовател по индивидуален грант по програма „Мария Склодовска-Кюри“, *Хоризонт 2020*, ЕК, към Институт по математика и информатика, Българска академия на науките
2017	„доктор на науките“ - научна степен в професионално направление Математика, специалност „Вероятности и статистика“, защитена към Институт по математика и информатика, Българска академия на науките
2014-2015	доцент към Институт по математика и информатика, Българска академия на науките и изследовател по проект АКОМИН към Институт по информационни и комуникационни технологии, Българска академия на науките
2012-2014	лектор по вероятности и статистика, *University of Reading*, Великобритания
2009-2012	*Esmee Fairbairn Junior Research Fellow, New College*, Оксфорд
2008-2009	постдокторант на Проф. Ж. Бертоан, Лаборатория по вероятности и случайни процеси, Университет „Пиер и Мария Кюри“, Париж

Образование

2005-2008	образователна и научна степен „доктор“ в областта на теория на вероятностите, *University of Manchester*, Великобритания, тема: “*Small time behaviour of Lévy processes,*" ръководител: Проф. Р. Дони
2000-2004	бакалавърска степен по Математика, Софийски университет „Св. Климент Охридски“

Награди

2011	награда на *Scopus* за млад учен в категория "Математика" за Великобритания
2007	"Докторант на годината" към Факултета по инженерни и физически науки, *University of Manchester*, Великобритания
2004	"Св. Св. Кирил и Методий" - студентска награда за отлични постижения в математиката, Софийски Университет

Грантове и стипендии

2015-2017	индивидуален грант, финансиран от европейската програма за научни изследвания и иновации *Хоризонт 2020*, програма "Мария Склодовска-Кюри", H2020-MSCA-IF-2014, 252 000 лева
2014	съвместен проект от "Национален фонд за наука", 99 000 лева
2012	съвместен грант от *FNRS subsidy pour Mission Scientifique*, Белгия
2011	грант от *"Fondation Phillipe Wiener-Maurice Aanspach"* за посещение на *Universite Libre de Brussels*, Брюксел, Белгия, 5 000 лева
2005-2008	докторантска стипендия *"Overseas Research Scholarship"* към *University of Manchester*, Великобритания

Международни проекти

2015-2017	индивидуален проект МОСТ на тема *"Spectral Theory of Non-Selfadjoint Markov Processes with Applications in Self-Similarity, Branching Processes and Financial Mathematics"*, програма „Мария Склодовска-Кюри“, *Хоризонт 2020*, ЕК
2009-2012	индивидуален проект на тема *"Small Time Behaviour of Lévy Processes"*, *Esmee Fairbairn Junior Research Fellowship*, *New College*, Оксфорд
2011-2012	съвместен проект с Пиер Пати на тема *"Exponential Functionals and Spectral theory"*, *Universite Libre de Brussels*, Брюксел

Научни интереси

вероятности и стохастични процеси

процеси на Леви и Марковски процеси; теория на флуктуациите на процеси на Леви

спектрална теория на Марковските процеси

математическо моделиране на движение на частици - аномални дифузии

Монте-Карло методи за квантовата механика

Езици и компютърни умения

Езици: английски - работно ниво (писмен и говорим); испански - начално ниво; френски - начално ниво

Програмиране: Java - добро владеене; MatLab - добро владеене; Python - начинаещ

Публикувани и приети статии

[33] Kolb, M and Savov, M.(2020) "*A characterization of the finiteness of perpetual integrals of Lévy processes*", *Bernoulli*, **26**, No. 2, 1453–1472, **1.393**

[32] Savov,M. and Toaldo, B. (2020+) "*Semi-Markov processes, integro-differential equations and anomalous diffusion-aggregation*", *Ann. Inst. H. Poincaré Probab. Statist.*, **accepted**

[31] Dimov, I. and Savov,M. (2020) "*Probabilistic analysis of the single particle Wigner Monte-Carlo method*", *Mathematics and Computers in Simulation*, **173**, 32–50, **1.409**

[30] Mutafchiev, L. and Savov,M. (2020+)"*On the Maximal Multiplicity of Block Sizes in a Random Set Partition*", *Random Structures and Algorithms*, 28 pages, **accepted**

[29] Zaevski, T.S., Kounchev, O. and Savov,M. (2019)"*Two frameworks for pricing defaultable derivatives*", *Chaos, Solitons and Fractals*, **123**, 309–319, **IF: 3.064**

[28] Loeffen, R., Patie, P. and Savov,M. (2019)"*Extinction Time of Non-Markovian Self-Similar Processes, Persistence, Annihilation of Jumps and the Fréchet Distribution*", *Journal of Statistical Physics*, **175**, No.5, 1022–1041, **IF: 1.513**

[27] Patie, P., Savov, M. and Zhao, Y. (2019)"*Intertwining, Excursion Theory and Krein Theory of Strings for Non-self-adjoint Markov Semigroups*", *Annals of Probability*, **47** No.5, 3231–3277, **IF: 2.05**

[26] Patie, P. and Savov, M. (2019+) "*Spectral expansions for generalized Laguerre semigroups*", *Memoirs of American Mathematical Society*, 179 pages, **accepted**

[25] Patie, P. and Savov,M. (2018) "*Bernstein-gamma functions and exponential functionals of Lévy processes*", *Electronic Journal of Probability*, **23**, 1–101, **IF: 0.994**

[24] Patie, P. and Savov,M. (2017) "*Cauchy problem of the non-self-adjoint Gauss-Laguerre semigroups and uniform bounds of generalized Laguerre polynomials*", *Journal of Spectral Theory*, **7**, No.3, 797–846, **IF: 1.21**

[23] Kolb, M and Savov, M. (2017) "*Conditional survival distributions of Brownian trajectories in a one dimensional Poissonian environment in the*

critical case", *Electron. J. of Probab.*, **22**, No:14, 1–22, **IF:0.95**

[22] Kolb, M. and Savov, M. (2016) "*Transience and recurrence of a Brownian path with limited local time*", *Annals of Probability*, **44**, No. 6, 4083–4132, **IF: 1.79**

[21] Savov, M. and Wang, S.(2015) "*Fluctuation limits of a locally regulated population and generalized Langevin equations*", *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, **18**, No. 02, 27 pages, DOI: 10.1142/S0219025715500095, **IF: 0.65**

[20] Savov, M. (2014) "*On the range of subordinators*", *Electron. Commun. Probab.*, **19**, No: 84, 1–10, **IF: 0.630**

[19] Aurzada, F., Kramm, T. and Savov, M. (2014) "*First passage times of Lévy processes over a one-sided moving boundary*", *Markov Process and Related Fields*, **21**, No.1, 1–38, **IF: 0.357**

[18] Kolb, M. and Savov, M. (2014) "*Exponential ergodicity of killed completely asymmetric Lévy processes in a finite interval*", *Electron. Commun. Probab.* **14**, No.1, 1–9, DOI: 10.1214/ECP.v19-3006, ISSN: 1083-589X, **IF: 0.6**

[17] Patie, P. and Savov, M. (2013) "*Exponential functional of Lévy processes: Generalized Weierstrass products and Wiener–Hopf factorization*", *Comptes Rendus Mathematique* **351**, No.9-10, 393–396, **IF: 0.477**

[16] Aurzada, F., Doering, L. and Savov, M. (2013) "*Chung LIL for Lévy processes at small times*", *Bernoulli* **19**, No.1, 115–136, **IF: 0.94**

[15] Kolb, M., Savov, M. and Wübcker, A. (2013) "*Geometric ergodicity of a hypoelliptic diffusion modelling the melt-spinning process of nonwoven materials*", *SIAM J. Math. Anal.* **45** No.1, 1–13, **IF: 1.573**

[14] Patie, P. and Savov, M. (2012) "*Extended factorizations of exponential functionals of Lévy processes*", *Electron. J. of Probab.* **17**, No.38, 1–22, **IF: 0.785**

[13] Pardo, J.C., Patie, P. and Savov, M. (2012) "*A Wiener-Hopf type of factorization for the exponential functional of Lévy processes*", *J. of London Math. Soc.* **96** (2), 930–956, **IF: 0.80**

[12] Kuznetsov A., Pardo J.C. and Savov, M. (2012) "*Distributional properties of exponential functionals of Lévy processes*", *Electron. J. of Probab.* **17**, No.8,

1–35, **IF: 0.785**

[11] Doering, L. and Savov, M. (2011) "*(Non) Differentiability and asymptotics for renewal densities of subordinators*", *Electron. J. of Probab.* **16**, No.17, 470–503, **IF: 0.790**

[10] Chan, T., Kyprianou A. and Savov, M. (2011) "*Smoothness of scale functions for spectrally negative Lévy processes*", *Probab. Theory and Related Fields* **150**, 691–708, **IF: 1.53**

[9] Savov, M. and Winkel, M. (2010) "*Right inverses of Levy processes: the excursion measure in the general case*", *Electron. Comm. in Probab.* **38**, No. 15, 572–584, **IF: 0.52**

[8] Savov, M. (2010) "*Small time one-sided LIL behaviour for Lévy processes at zero*", *J. of Theoret. Probab.* **23**, No.1, 209–236, **IF: 0.60**

[7] Bertoin, J. and Savov, M. (2010) "*Some applications of duality for Lévy processes in a half-line*", *Bull. of London Math. Soc.* **43**, 97–111, **IF: 0.630**

[6] Doering, L. and Savov, M. (2010) "*Application of renewal theorems to exponential moments of local times*", *Electron. Comm. in Probab.* **38**, No.15, 263–269, **IF: 0.560**

[5] Doney, R. and Savov, M. (2010) "*Right inverses of Lévy processes*", *Ann. of Probab.* **38**, No.4, 1390–1400, **IF: 1.470**

[4] Doney, R. and Savov, M. (2010) "*The asymptotic behavior of densities related to the supremum of a stable process*", *Ann. of Probab.* **38**, No.1, 316–326, **IF: 1.470**

[3] Doney, R., Maller, R. and Savov, M. (2009) "*Renewal theorems and stability for the reflected process*", *Stochastic Process. Appl.* **119**, No.4 , 1270–1297, **IF: 1.540**

[2] Savov, M. (2009) "*Small time two-sided LIL behavior for Lévy processes at zero*", *Probab. Theory and Related Fields* **144**, No.1-2, 79–98, **IF: 1.390**

[1] Savov, M. (2008) "*Curve crossing for the reflected Lévy process at zero and infinity*", *Electron. J. of Probab.* **13**, No.7, 157–172, **IF: 1.13**

Статии в рецензия

[1] Palejev, D. and Savov, M. (2020+) "*On the convergence of the Benjamini-Hohcberg procedure*"

[2] Barker, A. and Savov, M. (2020+) "*Bivariate Bernstein-Gamma functions and moments of exponential functionals of subordinators* "

Конференции | участия

2020 "*Bernstein-gamma functions in the theory of stochastic processes and beyond*", (plenary talk), Mathematics Days in Sofia, Sofia, Bulgaria - ***ако не се отложи поради пандемията***

2020 "*Stochastic Processes under Constraints*", (invited talk), Oberwolfach, Germany - ***ако не се отложи поради пандемията***

2018 "*Fractional diffusion of variable order and anomalous aggregation phenomenon*", (invited talk), Workshop of North Rheine-Westphalia on Stochastic processes, Paderborn, Germany

2018 "*Fractional diffusion of variable order and anomalous aggregation phenomenon*", (invited talk), International Summer Conference on Probability and Statistics, Pomorie, Bulgaria

2017 "*Bernstein-Gamma functions and exponential functionals of Lévy processes*", (invited talk), Workshop on Lévy processes and time series: in honour of Peter Brockwell and Ross Maller, Ulm, Germany

2016 "*Brownian motion*", (invited educational talk), UCHIMI'16, Blagoevgrad, Bulgaria

2016 "*Bernstein-Gamma functions and exponential functionals of Lévy processes*", (invited talk), 4th Workshop on Fractional Calculus, Probability and Non-Local Operators: Applications and Recent Developments FCPNLO 2016, Bilbao, Spain

2016 "*Bernstein-Gamma functions and exponential functionals of Lévy processes*", (invited talk), 8th International Conference on Lévy processes, Angers, France

2016 "*Transience and recurrence of a Brownian path with limited local time*", (invited talk), Stochastic processes under constraints, Augsburg, Germany

2016 "*Bernstein-Gamma functions and their applications in probability theory*", (keynote lecture), 17th International Summer Conference on Probability and Statistics ISCPS'16, Pomorie, Bulgaria

2015 "*The spectral theory of generalized Laguerre semigroups and its applications to positive self-similar Markov processes*", (plenary talk), International Congress of Mathematics MICOM-2015, Athens, Greece

2015 "*The spectral theory of generalized Laguerre semigroups and its applications to positive self-similar Markov processes*", (plenary talk), Adventures in Self-Similarity, Cornell, USA

2015 "*Recent developments in exponential functionals of Lévy processes*", 44 Spring Conference of the Society of Bulgarian Mathematicians, Camchia, Bulgaria

2015	"*Some thoughts on spectral theory of non-self-adjoint Markov processes with emphasis on the class of Laguerre semigroups.*", Belgium Luxemburgh seminar in probability, Liege, Belgium
2014	"*Brownian motion with limited local time*", invited speaker, Persistence probabilities and related fields, Darmstadt, Germany
2013	"*Some spectral properties for a class of non-self-adjoint operators related to Markov processes*", From Spectral Gaps to Particle Filters, Reading, UK
2013	"*Some spectral problems associated to non-self-adjoint selfsimilar semigroups*", invited speaker, 7th International Conference on Lévy Processes, Wroclaw, Poland
2012	"*Eigenvalue expansions of invariant Feller-Lamperti semigroups generated by non-local, non-selfadjoint operators via intertwining approach*", invited speaker, Workshop on Lévy processes and Their Applications, University of Zurich, Switzerland
2012	"*Lévy perpetuities*", invited speaker, Workshop IPAS, Brussels, Belgium
2011	"*Exponential functionals of Lévy processes*", invited speaker, Conference on Self-Similarity and Related Fields, Le Touquet, France
2011	"*Exponential functionals of Lévy processes*", invited speaker to a contributed session, 35th Conference on Stochastic Processes and their applications, Oaxaca, Mexico.
2010	"*Exponential functionals of Lévy processes*", invited speaker, Workshop on Lévy processes and Their Applications, University of Zurich, Switzerland
2010	"*Lamperti representation of self-similar Markov processes*", invited speaker, 6th International Conference on Lévy Processes, Dresден, Germany
2009	"*Right Inverses of Lévy processes*", invited speaker to a special session, 34th Conference on Stochastic Processes and their applications, Berlin, Germany
2008	"*Laws of Iterated Logarithms for Lévy processes at small times*", invited speaker, Workshop on Risk Modeling and High Frequency Data, Munich, Germany

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Семинари | участия

2018	"*Bernstein-Gamma functions and exponential functionals of Lévy processes*", seminar talk, Probability Seminar of University of Bielefeld, Bielefeld, Germany
2017	"*Bernstein-Gamma functions and exponential functionals of Lévy processes*", seminar talk, Probability Seminar of University of Manchester, Manchester, UK
2017	"*Bernstein-Gamma functions and exponential functionals of Lévy processes*", seminar talk, University of Naples, Naples, Italy
2016	"*Bernstein-Gamma functions and exponential functionals of Lévy processes*", National Stochastics Seminar, BAS, Sofia, Bulgaria
2015	"*Spectral theory of the generalized semigroups of Laguerre and some applications in the theory of the positive self-similar Markov processes*", National Stochastics

Seminar, BAS, Sofia, Bulgaria

2014 "*Recent developments for exponential functionals and some possible implications for pricing Asian options*", Vienna Seminar in Mathematical Finance and Probability, Vienna, Austria

2014 "*Brownian motion with restricted local time at zero*", National Stochastic Seminar, BAS, Sofia, Bulgaria

2013 "*Spectral Expansions and Intertwining of Semigroups*", London Mathematical Analysis Seminar, Imperial College, London, UK

2011 "*Factorization of Exponential Functionals*", Probability Seminar of Paris 6, Paris, France

2011 "*Factorizations of Exponential Functionals*", Probability Seminar of Fields Institute, Toronto, Canada

2010 "*Some Results on Box Dimensions of Subordinators*", CIMAT Probability Seminar, Guanajuato, Mexico

2010 "*Some Results on Box Dimensions of Subordinators*", UNAM Probability Seminar, Mexico city, Mexico

2010 "*Some Applications of Duality for Lévy Processes in a Half-line*", Stochastic Analysis Seminar, Oxford, UK

2010 "*Some Applications of Duality for Lévy Processes in a Half-line*", ULB Seminar Meeting, Brussels, Belgium

2010 "*Right Inverses of Lévy Processes*", Seminar meeting, Oxford, UK

2010 "*Right Inverses of Lévy Processes*", Seminar meeting, Braunschweig, Germany

2009 "*Right Inverses of Lévy Processes*", Seminar meeting, Bath, UK

2008 ''*Laws of Iterated Logarithms for Lévy processes at Small Times*", Probability Seminar of Paris 6, Paris, France

2008 "*Laws of Iterated Logarithms for Lévy processes at Small Times*", Seminar Meeting, TU-Vienna, Austria

2008 "*Laws of Iterated Logarithms for Lévy processes at Small Times*", EURANDOM, Eindhoven, Holland

May 12, 2020