CURRICULUM VITAE

Name: Ms. Penka MAYSTER
Permanent position: Associate Member,
Institute of Mathematics and Informatics,
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SPECIALITY: TEACHING and RESEARCH in Mathematics and Probability

"Branching Diffusion Processes in an Unbounded Domain"
Math. USSR Sbornik 42, 357-373, (1982)

"Random Branching Motion"
Invited Lecture, Institut für Mathematische Stochastik, Universität Götingen, Germany, (December 1985)

"Processus de Branchement avec Mouvement des Particules: Markovian et non-Markovian"
Invited Lecture, Ecole Polytechnique, 91128 Palaiseau, FRANCE, (March 1991)

"Subordinated Semi groups in the Age-dependent Branching Processes with Motion of the Particles"
C.R. Bulgarian Academy of Sciences 45 no. 11, 31-34, (1992)

“Alternating Branching Processes”
J. Appl. Prob. 42, 1095-1108 (2005)

EDUCATIONAL BACKGROUND

Senior research fellow in probability	2010	Bulgarian Academy of Sciences
Associate professor in probability	1999	University of Sofia
Associate Professor in mathematics	1985	University of Sofia
Ph.D.	1974	Moscow State University "M. Lomonosov"
M.Sc. (with honors)	1970	Moscow State University "M. Lomonosov"

SPECIALISATION AND IMPROVEMENT OF QUALIFICATION

Probability	1980-81	Moscow State University "M. Lomonosov"

WORK GROUPS AND SEMINARS ATTENDED

Branching Processes and Renewal Theory	Moscow State University "M. Lomonosov"
Diffusion Processes and Semigoups	Moscow State University "M. Lomonosov"
Stochastic Processes	Bulgarian Academy of Sciences

Potential Theory, Complex Analysis	University of Tunis
Infinite Dimensional Analysis	University of Tunis

EMPLOYMENT HISTORY

Permanent Positions

Mathematician	1970-71	Institute of Mathematics, Bulgarian Academy of Sciences
Postgraduate Student	1971-74	Moscow State University "M. Lomonosov"
Assistant Professor	1974-78	High Pedagogic Institute, Shumen, Bulgaria
Assistant Professor	1978-85	Institute for Foreign Students, Sofia, Bulgaria
Associate Professor	1985-91	Institute for Foreign Students, Sofia, Bulgaria
Member of the Academic Council	1989-91	Institute for Foreign Students, Sofia, Bulgaria
Associate Member	From 2007	Institute of Mathematics and Informatics,
Associate Professor	2010-2012	Bulgarian Academy of Sciences, Sofia
Senior expert	2014-2017	Financial Supervision Commission, Bulgaria

Visiting Positions

Associate Professor	1986-89	University of Constantine, Algeria
Associate Professor	1990-2014	University of Tunis, Tunisia

TEACHING ACTIVITIES

Undergraduate courses:	Calculus I, II, Linear Algebra
Graduate courses:	Probability and Statistics, Stochastic Processes, Complex Analysis, Functional Analysis, Partial Differential Equations
Thesis Supervising:	Stochastic Processes, Optimal Control
Programs Conception:	Methodological and Pedagogic Problems

RESEARCH ACTIVITIES

Branching Diffusion Processes, Branching Processes in Random Environment,
Non-Markovian model of branching processes with motion of the particles,
Stability of the dynamic systems perturbed by stochastic impulses,
Renewal processes and queuing systems,
Subordinated semi groups, Levy White noise analysis.

Ph.D. Thesis: BRANCHING DIFFUSION PROCESSES IN A BOUNDED DOMAIN WHIT ABSORBING BARRIER

Advisor of the thesis:	Boris A. Sevastjanov
Referees of the thesis:	R. Z. Khasminski, Stanislaw A. Moltchanov, V. P. Tchistjakov

Ph.D. Thesis defended: December 11, 1974, in front of the Academic Counsel of the **MOSCOW STATE UNIVERSITY**

PUBLICATIONS

1. (1970): Optimal Input Stream of One Queuing System,
In "Mathematical Problems in the Productions Control" (ed. G. Klimov),
Moscow University Press, Moscow, 158-164, (in Russian)

2. (1974): Branching Diffusion Processes in a Bounded Domain with Absorbing Boundary.
Teor. Verojatnost. i Primenen. 19, 589-596;
English translation in Theor. Probab. Appl. 19 (1974)

3. (1974). Branching Diffusion Processes , autoreferat of the dissertation,
Moscow University Press, Moscow, (in Russian)

4. (1978): Mathematical Expectation of a Time-continuous Branching Diffusion Process,
Teor. Verojatnost; i Primenen. 23, 831-836;
English translation in Theor. Probab. Appl. 23 (1978)

5. (1978): Second Factorial Moment of Branching Diffusion Processes,
SERDICA, J. Math. Bulgaria 4, 359-366 (in Russian)

6. (1982): Branching Diffusion Process in an Unbounded Domain,
Math. USSR Sbornik 42, 357-373

7. (1982): Several Examples on Branching Diffusion Processes in the Unbounded Domain, SERDICA, J. Math. Bulgaria 8, 190-196 (in Russian)

8. (1982): Branching Diffusion Process with Poisson Initial Distribution,
SERDICA, J. Math. Bulgaria 8, 250-254 (in Russian)

9. (1984): Branching Random Walk on a Closed Interval
C.R. Acad. Bulg. Sci. 37, 461-464 (in Russian)

10. (1984): Mathematical Expectation of a Branching Process with Small Diffusion
PLISKA, Stud. Math. Bulg. 7, 109-117 (in Russian)

11. (1985): Application of Calculus of Variations for Study the Branching Diffusion Processes
Complex Analysis and Applications, (Varna'83), 294-297,
Bulg. Acad. Sci. Sofia, (in Russian)

12. (1987): Stability of the Dynamic Systems with stochastic impulses
Proc. X - ICNO (Varna'84), 365-369,
Bulg. Acad. Sci., Sofia (in Russian)

13. (1987): Stability of the Solutions of Stochastic Equations with Integrals on Martingales and Random Measures
Differential Equations and Applications, (Ruse'85), 817-820,
„Angel Kanchev" Tech. Univ., Ruse

14. (1988): Random Branching Processes with Deterministic Motion and Un-local Branching Law
Proc. Tenth. Prague Conf. On Information Theory and Random Processes, (Prague'86), 165-172

15. (1988): Stabilité des Solutions des Equations Différentielles Perturbées par Impulsions Stochastiques, Cahiers Maths. 1, 71-75, Université d'Oran

16. (1990): Random Branching Processes with Motion of the Particles
Mathematics and Mathematical Education (Sunny Beach, 1990), Bulg. Acad. Sci. Sofia, 30-40

17. (1992): Subordinated Semigroups in the Age-dependent Branching Processes with Motion of the Particles
Compt. Rend. Acad. Bulg. Sci. 45, no. 11, 31-34

18. (1992): Age and Position-Dependent Branching Diffusion: Extinction Probability
Compt. Rend. Acad. Bulg. Sci. 45, no. 12, 25-29

19. (2005): Alternating Branching Processes
J. Appl. Prob. 42, 1095-1108

20. (2007): Sevasyanov's Model with Motion of the Particles
Internet MIAJ-Workshop on Stochastic modeling
www.jouy.inra.fr
www.cirm.univ-mrs.fr/videos/2007/exposes/10a/mayster_sevastyanov.pdf

21. (2009) Branching Processes in Autoregressive Random Environment,
Pliska- Stud. Math. Bulg. 19, 217-228

22. (2010): Stationary Distributions of the Alternating Branching Processes,
Lecture Notes in Statistics-Proceedings, vol.197, p. 55-69
ISBN: 978-3-642-11154-9

23. (2010): First time derivative of the subordinated Lévy processes,
GFTA'2010 Proceedings Volume, p. 181-186, Sofia, 2010,
Editors: V. Kiryakova and Sh. Owa.

24. (2014): Subordinated Markov Branching Processes and Lévy processes,
Serdica Math.J., 40(2014), 183-108

25. (2018): Consecutive subordination of Poisson processes and Gamma processes,
Compt. Rend. Acad. Bulg. Sci. 71, pp. 735-742.

CONTRIBUTED PAPERS and TECHNICAL REPORTS

1. (1974): Random Branching Processes in a Bounded Domain with Absorbing Barrier
Moscow Univ. Press, Moscow (in Russian)

2. (1977): Branching Diffusion Processes
Summary of Sixth Balkan Mathematical congress, (Varna, 1977), (in Russian)

3. (1979): Mathematical Expectation of Branching Processes in an Unbounded Domain
Summaries of Twelfth European Meeting of Statisticians, (Varna, 1979),
(In Russian)

4. (1983): Philosophic Problems in Mathematics
Institute for Foreign students Press, Sofia (in Bulgarian)

5. (1984): Historic and Methodological Problems in the Introduction of the Notion of Function
Institute for foreign Students Press, Sofia, (in Bulgarian)

6. (1990): Branching diffusion Processes on Unbounded Domains
Abstracts of the 19th Conference on Stochastic Processes and Their Applications, Eisenach, September 3-8, 1990.

7. (1991): Bellman-Harris Process with Motion of the Particles in the Unbounded Domains.
Seventh International Summer School on Probability and Mathematical Statistics, Varna, Golden sands, 16-27 September, 1991.

8. (1993) Subordinated Semigroups in the Age-Dependent Branching Processes,
First World Conference on Branching Processes, Varna-93.

9. (1995): Stochastic Processes, polycope , Ecole Polytechnique de Tunis.

10. (1997): Analyse et Algèbre, polycope, ISET de Radès.

11. (2001): Spatial Non-Markov Branching Processes,
International Conference on Stochastic Analysis and Applications,
Hammamet , 22-27 October 2001

12. (2003): Controlled Branching Processes,
Colloque International de Mathématiques-Analyse et probabilités,
Hammamet, 20-25 October 2003

13. (2005): Alternating Branching processes
International Conference on Stochastic Analysis and Random Phenomena,
Hammamet, 12-19 September 2005

14. (2006): Subordinate Semigroups and Positivity
International Conférence ‘CARTHAPOS” Cartage - Tunis
www.cck.rnu.tn/carthapos2006/communic.htm

15. (2006): Subordinate Lévy processes and Branching processes
International Conference on Harmonic Analysis and Application
"ICHAA 2006 SOUSSE EL KANTAOUI"
http://ichaa.50webs.com/pages_fr/participants.htm /

16. (2006): Branching processes in Random Environment
International Conference "Pioneers of Bulgarian Mathematics"
www.profot.fmi-sofia.bg/

17. (2007): White noise Analyses of Subordinated Lévy processes.
International Conference on Stochastic Analysis and Applications,
Hammamet, 5-10 November 2007
www.annonces.rnu.tn/news/november07/ICSAA_programme.pdf

18. (2008): Branching Processes in Autoregressive Random Environment.
13-th International Summer Conference on Probability and Statistics
), Seminar on Statistical Date Analysis (SDA)
Sozopol, 21-28 June 2008
www.stochastics.fmi.uni-sofia/sda/st/bin/abstracts.cgi

19. (2009): Criticality for alternating branching processes,
Workshop on Branching Processes and their Applications,
April 20-23, 2009, Badajoz, Spain
http:// branching.unex.es, www.unex.es

20. (2009): Stationary distribution of branching processes in random environment,
International Conference on Stochastic Analysis and Applications,
Hammamet, 12-17 October 2009
http://www.uma.pt/Investigacao/Ccm/icsaa09/index.html

21. (2009): Poisson random measure of the subordinated Lévy processes, TJASSST'10,
Tunisian-Japanese Symposium on Society, Sciences and Technology,
November 11-13, 2009, Hammamet.
PDF],TJASSST'10 General Program Schedule
http://www.mes.tn/francais/divers/**...**/2009/programme_tjassst10.pdf

22. (2010): First time derivative of the subordinated Lévy processes, GFTA'10,
www.math.bas.bg/~tmsf /gfta2010 /

23. (2011): Random Time Changed branching processes and Levy processes,
Workshop on "Processus de branchement et processus dérivés:
comportements transitoires et asymptotiques", 26-29 April, 2011,
www.cirm.univ-mrs.fr

24. (2011): Infinitesimal generator of the subordinated Markov branching processes,
International Conference on Stochastic Analysis and Applications,
Hammamet, 10-15 October 2011
http://www.uma.pt/Investigacao/Ccm/icsaa11/index.html

24. (2013): Moments and cumulants of the subordinated Lévy processes,
International Conference on Stochastic Analysis and Applications,
Hammamet, 14-19 October 2013
http://www.uma.pt/Investigacao/Ccm/icsaa13/index.html

SAMPLE REFERENCES TO MY PAPERS

1. (1978): Pastore, G.L.: Some Theorems About Markov Branching Processes
Vestnik Moscow Univ. Math. Mech. 4, 16-25, (in Russian)

2. (1978): Pastore, G.L.: On the Branching Diffusion Processes in a Compact Space
Vestnik Moscow Univ. Math. Mech. 5, 9-15, (in Russian)

3. (1984): Volkova E.I.: Some Asymptotic Properties of Branching Processes with Motion of the Particles, Soviet Math. Dokl. V.30, n.3,

4. (1985): Volkova, E.: Limit Theorems for Critical Branching Processes with Particles Motion
Teor. Verojatnost. I Primenen. 30, 372-377;
English Transl. In Theor. Probab. Appl. 30 (1985)

5. (1985): Yanev, N.: Branching stochastic Structures
Mathematics and Mathematical education (Sunny beach, 1985), 171-184,
Bulg. Acad. Sci. Sofia (in Russian)

6. (1988): Chauvin, B. and Rouault, A.: KPP Equation and Supercritical Branching Brownian Motion in the Subcritical Speed Area
Probab. Th. Rel. Fields 80, 299-314

7. (1989): Dimitrov, B.: Some New Characterization Properties of the Exponential and Geometric Distributions Based on differential Equations
Differential Equations and Applications, (Ruse'89),
„Angel Kanchev" Tech. Univ., Ruse

8. (2009): Mitov K.V., Yanev N.M. Branching Stochastic Processes: Regulation, Regeneration, Estimation, Application,
Pliska- Stud. Math. Bulg. 19, 5-58
www.stochastics.fmi.uni-sofia/sda/st/bin/abstracts.cgi

www.math.bas.bg/~statlab/pmayster.html