Prof. Dr.Sci. Svetlozar (Zari) Rachev –Curriculum Vitae   November 1, 2021

Name:	**Svetlozar (Zari) Todorov RACHEV**
Date of birth:	September 6, 1951
Citizenship:	U. S. A.
Current Position:	Professor, Dept. of Mathematics & Statistics, Texas Tech University

Education

M.Sc. in Mathematics, Sofia University, Faculty of Mathematics, July 1974, **Thesis**: "*Reliability of aging systems*

Ph.D. in Mathematics, Lomonosov University (Moscow), Faculty of Mechanics and Mathematics, October 12, 1979, **Dissertation**: "*The structure of the metrics in the space of random variables and their distributions*."

Doctor of Science (Habilitation) in Physics and Mathematics, Steklov Mathematical Institute, Moscow, April 10, 1986. **Dissertation**: "*Probability metrics and their applications to the stability problems for stochastic models*"

Google Scholar Profile
Wikipedia page
Rachev ratio

Previous Appointments:

2017 – Now   Professor, Dept. of Mathematics & Statistics, Texas Tech University

2012 – 2016	Professor, College of Business Program Director, Finance and Accounting Stony Brook University Research Professor, Dept. of Applied Math & Statistics
2011 – 2012	Frey Family Foundation Chair of Quantitative Finance, Department of Applied Mathematics and Statistics, Stony Brook University
1998 – 2010	Endowed Chair of Statistics, Econometrics and Mathematical Finance, School of Economics and Business Engineering, Karlsruhe Institute of Technology
1989 – 1998	Professor, Department of Statistics and Applied Probability, University of California at Santa Barbara. (1994-1995, Department Chairman)
1988 – 1988	Visiting Associate Professor, State University of New York at Stony Brook.
1987 – 1987	John H. Van Vleck, Visiting Professor, Wesleyan University, Connecticut, and Visiting Associate Professor, Centre for Stochastic Processes, University of North Carolina at Chapel Hill.
1984 – 1986	Senior Research Fellow, Bulgarian Academy of Sciences, and Visiting Senior Research Fellow, Steklov Mathematical Institute, Academy of Sciences of the USSR, Moscow.
1980 – 1984	Research Fellow, Mathematical Institute, Bulgarian Academy of Sciences.
1977 – 1979	Post-graduate Student, Lomonosov University, Faculty of Mechanics and Mathematics, Department of Probability, Moscow, USSR
1974 – 1977	Mathematician, Mathematical Institute, Bulgarian Academy of Sciences.

Awards:

Fellow of the Institute of Mathematical Statistics,

Elected Member of the International Statistical Institute,

Foreign Member of the Russian Academy of Natural Science,

Honorary Doctor of Science at St. Petersburg Technical University,

Senior Humboldt Professor Award (1997)

Published/Broadcast Interviews

Zari Rachev. FACTBOX-Tools to predict market shocks, Reuters, MAY 24, 2009.
https://www.reuters.com/article/models-math/factbox-tools-to-predict-marketshocks-idUSL169274620090525
https://www.reuters.com/article/us-models-finanalytica/assessing-the-risk-ofa-cataclysm-idUSTRE54O00R20090525

RISIKOMANAGER Journal: Interview with Prof. Dr. Svetlozar Rachev, Chair of Statistics, Econometrics and Mathematical Finance at University of Karlsruhe (TH) and Prof. Stefan Mittnik
(Ph.D.) Chair of Financial Econometrics at University of Munich New Approaches for Portfolio Optimization Parting with the Bell Curve
https://statistik.econ.kit.edu/download/doc_secure1/RM-Interview-RachevMittnik-EnglishTranslation.pdf

Patents

1. Rachev et. al. *System and Method for the Valuation of Derivatives,* United States Patent, Serial No.: 10/888,414, Filed July 9, 2004, Docket No.: 031/0424:US.UTL,Patent Number 7,630,931, Date of Patent: Dec. 8, 2009
2. Rachev et. al. *System and Method for Providing Optimization of a Financial Portfolio Using a Parametric Leptokurtic Distribution*, United States Patent, Serial No.: 10/888,414, Filed July 9, 2004,Decket No.: 031/0424.US.UTL, May, 2010.
3. Rachev et. al. *Risk Management System and Method for Determining Risk Characteristics Explaining Heavy Tails of Risk Factors* , U.S. Patent Trademark Office, Patent Number 7,778,897, August 17, 2010
4. Rachev et. al. *System and Method for Providing Reallocation and Reverse Optimization of a Financial Portfolio Using a Parametric Leptokurtic Distribution*, United States Patent, U.S. Patent Trademark Office, Patent Number 7,890,409, February 15, 2011
5. Rachev et. al. *System and Method For Generating Random Vectors For Estimating PortfolioRisk,* United States Patent, U.S. Patent Trademark Office, Patient Number 8,170,941, May 1, 2012

List of the Ph.D. Students of Svetlozar Rachev

1. Prachi Chaturvedi (UCSB, Departments of Statistics and Applied Probability)
2. Bessy Athanasopoulos (UCSB, Departments of Statistics and Applied Probability)
3. Bertrand Gamrowski (Ecole Polytechnique, Paris)
4. Thomas Kozubowski (UCSB, Departments of Statistics and Applied Probability)
5. Anna Panorska (UCSB, Departments of Statistics and Applied Probability)
6. Benny Cheng (UCSB, Departments of Statistics and Applied Probability)
7. Chufang Wu (UCSB, Departments of Statistics and Applied Probability)
8. Vera Haynatzka (UCSB, Departments of Statistics and Applied Probability)
9. Seonkoo Han (UCSB, Departments of Statistics and Applied Probability)

10. Norbert Schumacher (UCSB, Departments of Statistics and Applied Probability)
11. Irina Khindanova (UCSB, Departments of Economics)
12. Yesim Tokat (UCSB, Departments of Economics)
13. Biliana Bagasheva (UCSB, Departments of Statistics and Applied Probability)
14. Anna Chernobai (UCSB, Departments of Statistics and Applied Probability)
15. Alex Vollert (University of Karlsruhe, School of Economics and Business Engineering)
16. Christian Peter (Karlsruhe, School of Economics and Business Engineering)
17. Lorena Vinueza (Karlsruhe, School of Economics and Business Engineering) ì
18. Stefan Trueck (Karlsruhe, School of Economics and Business Engineering)
19. Christian Menn (Karlsruhe, School of Economics and Business Engineering)
20. Stefan Woerner (Karlsruhe, School of Economics and Business Engineering)
21. Dylan D'Souza (UCSB, Departments of Economics)
22. Stoyan Stoyanov (Karlsruhe, School of Economics and Business Engineering)
23. Wei Sun (Karlsruhe, School of Economics and Business Engineering)
24. Sebastian Kring (Karlsruhe, School of Economics and Business Engineering)
25. Markus.Hoechstoetter (Karlsruhe, School of Economics and Business Engineering)
26. Michael Grebeck (UCSB, Departments of Statistics and Applied Probability)
27. Jorge Hernandez (UCSB, Departments of Statistics and Applied Probability)
28. Carlo Marinelli (Columbia University, Department of Statistics)
29. Teo Jašić (Karlsruhe, School of Economics and Business Engineering)
30. Dezhong Wang (UCSB, Departments of Statistics and Applied Probability)
31. Sergio Focardi (Karlsruhe, School of Economics and Business Engineering)
32. Anna Serbinenko (Karlsruhe, School of Economics and Business Engineering)
33. Christoph Moeller (Karlsruhe, School of Economics and Business Engineering)
34. Jan Fraenkle (Karlsruhe, School of Economics and Business Engineering)
35. Christian Diekmann (Karlsruhe, School of Economics and Business Engineering)
36. Michael Stein (Karlsruhe, School of Economics and Business Engineering)
37. Christian Scherrer-Montbrun (Karlsruhe, School of Economics and Business Engineering)
38. Thomas Meinl (Karlsruhe, School of Economics and Business Engineering)
39. Scherer, Matthias (Karlsruhe, School of Economics and Business Engineering)
40. Michele Leonardo Bianchi (Karlsruhe, School of Economics and Business Engineering)
41. Rezania, Omid (Karlsruhe, School of Economics and Business Engineering)
42. Aktan, Sinan (Karlsruhe, School of Economics and Business Engineering)
43. Beck, Alexander (Karlsruhe, School of Economics and Business Engineering)
44. Krause, Drik (Karlsruhe, School of Economics and Business Engineering)
45. Nazemi, Abdolreza (Karlsruhe, School of Economics and Business Engineering)
46. Papenbrock, Jochen (Karlsruhe, School of Economics and Business Engineering)
47. Pieper, Michael (Karlsruhe, School of Economics and Business Engineering)
48. Xiaochu Zhang (Stony Brook University, Dept. of Applied Math & Statistics)

49. Xiaoping Zhou (Stony Brook University, Dept. of Applied Math & Statistics)
50. Tetsuo Kurosaki (Stony Brook University, Dept. of Applied Math & Statistics)
51. Barret Shao (Stony Brook University, Dept. of Applied Math & Statistics)
52. Naoshi Tsuchida (Stony Brook University, Dept. of Applied Math & Statistics)
53. Angela Tsao (Stony Brook University, Dept. of Applied Math & Statistics)
54. Yikang Chai (Stony Brook University, Dept. of Applied Math & Statistics)
55. Tianyu Lu (Stony Brook University, Dept. of Applied Math & Statistics)
56. Yuzhong Zhang (Stony Brook University, Dept. of Applied Math & Statistics)
57. Hua Mo (Stony Brook University, Dept. of Applied Math & Statistics)
58. Xiang Shi (Stony Brook University, Dept. of Applied Math & Statistics)
59. Po-Keng Cheng (Stony Brook University, Dept. of Applied Math & Statistics)
60. Fangfei Dong (Stony Brook University, Dept. of Applied Math & Statistics)
61. Abootaleb Shirvani (Texas Tech University, Dept. of Mathematics & Statistics)

List of the Postdoctoral Students of Svetlozar Rachev

1.Dr. Young Shin Kim (Karlsruhe Institute of Technology, School of Business and Economics)

2.Dr. Jiho Park (Texas Tech University, Dept. of Mathematics & Statistics)

3.Dr. Davide Lauria (Texas Tech University, Dept. of Mathematics & Statistics)

PUBLICATIONS OF SVETLOZAR RACHEV

Books and Monographs

1. Frank J. Fabozzi, Sergio M. Focardi, Svetlozar T. Rachev, and Bala Arshanapalli, *Basics of Financial Econometrics:* Tools, concept, and Asset management Application Wiley Son, 2014.

https://onlinelibrary.wiley.com/doi/book/10.1002/9781118856406 2.

2. Stoyan Stoyanov, Svetlozar Rachev, Frank Fabozzi, *Optimal Portfolio Management in Highly Volatile Markets,* Scholars Press, 2013 https://www.amazon.com/Optimal-Portfolio-Management-Volatile- Markets/dp/3639514130

3. Rachev, S. T., Klebanov, L.B., Stoyanov, S.V., Fabozzi, F., *The Methods of Distances in the Theory of Probability and Statistics*, John Wiley, Finance, 2013

https://www.springer.com/gp/book/9781461448686

4. Rachev, S. T., Kim, Y., Bianchi, M., Fabozzi, F., *Financial Models with Levy Processes and Volatility Clustering*, Springer, New York 2011 http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470482354,descCd-tableOfContents.html

5. Rachev, S. T., Stoyanov, S. V., Fabozzi, F., *A Probability Metrics Approach to Financial Risk Measures*, Wiley – Blackwell, 2011

http://www.wiley.com/WileyCDA/WileyTitle/productCd-1405183691.html

6. Rachev, S. T., Hoechstoetter, M., Fabozzi, F., Focardi, S., *Probability and Statistics for Finance*, John Wiley, Finance, 2010

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470400935.html

7. Klebanov, L., Rachev, S. T., Fabozzi, F., *Robust and Non-Robust Models in Statistics*, NOVA-Science Publishers, NY, 2009

https://www.novapublishers.com/catalog/product_info.php?products_id=10251

8. Trueck, S., Rachev, S. T., *Rating Based Modeling of Credit Risk: Theory and Application of Migration Matrices*, Academic Press Advances Finance, 2008

http://www.elsevier.com/wps/find/bookdescription.cws_home/716895/description#description

9. Rachev, S. T., Stoyanov, S., Fabozzi, F., *Advanced Stochastic Models, Risk Assessment and Portfolio Optimization: The Ideal Risk, Uncertainty, and Performance Measures*, John Wiley, Finance, 2007

http://www.wiley.com/WileyCDA/WileyTitle/productCd-047005316X.html

10. Rachev, S. T., Hsu, J., Bagasheva, B., Fabozzi, F., *Bayesian Methods in Finance*, John Wiley, Finance, 2007

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471920835.html

11. Rachev, S. T., Mittnik, S., Fabozzi, Frank J., Focardi, S., Jasic, T., *Financial Econometrics: From Basics to Advanced Modeling Techniques*, John Wiley, Finance, 2007

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471784508.html

12. Chernobai, A., Rachev, S. T., Fabozzi, F., *Operational Risk: A Guide to Basel II Capital Requirements, Models and Analysis*, John Wiley, Finance, 2007

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471780510.html

13. Klebanov, L. Kozubowski, T. Rachev, S. T., Ill-*Posed Problems in Probability and Stability of Random Sums*, NOVA Science Publishers, New York, 2006

https://www.novapublishers.com/catalog/product_info.php?products_id=4546

14. Rachev, S. T., Menn, C., Fabozzi, F., *Fat-Tailed and Skewed Asset Return Distributions: Implications for Risk Management, Portfolio selection and Option Pricing*, John Wiley, Finance, 2005

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471718866.html

15. Rachev, S. T., Mittnik, S., *Stable Paretian Models in Finance*, John Wiley, Series in Financial Economics and Quantitative Analysis, Chechester, New York, 2000

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471953148.html

16. Rachev, S. T., Rueschendorf, L., *Mass Transportation Problems, Vol II: Applications*, Springer, New York, 1999

http://www.springer.com/statistics/book/978-0-387-98352-3

17. Rachev, S. T., Rueschendorf, L., *Mass Transportation Problems, Vol I: Theory*, Springer, New York, 1998

http://www.springer.com/mathematics/probability/book/978-0-387-98350-9

18. Rachev, S. T., *Probability Metrics and the Stability of Stochastic Models*, Wiley, Chichester, New York, 1991

http://books.google.com/books/about/Probability_metrics_and_the_stability_of.html?id=5grvAAAAMAAJ

19. Kashnikov, V., Rachev, S T., *Mathematical methods for construction for queuing models*, Moscow, Nauka, (in Russian) 1988, English translation, Wadsworth & Brooks/Cole Advanced Books, 1990.

http://books.google.com/books/about/Mathematical_methods_for_construction_of.html?id=2_V9AAAAIAAJ

20. Kakosyan, A., Klebanov, L., Rachev, S. T., Quantitative Criteria for Convergence of Measures, Erevan, Ajastan Press, 1978 (in Russian)

Handbooks and Special Volumes:

1. Rachev, S.T., Sun, E, Fabozzi, F, Charchano O, Kim, Y, *A Quasi-Maximum Likelihood Estimation Strategy for Value-at Risk Forecasting: Application to Equity Index Futures? Markets, Handbook of Financial Econometrics and Statistics,* SpringerReference.com April 15, 2013.

2. Rachev, S.T., Chernobai, A., Fabozzi F, *Composite Goodness-of-Fit Tests for Left Truncated Loss Sample,* SpringerReference.com *April* 15, 2013.

3. Rachev, S. T., Fabozzi, F., (Guest Editors), *Special Issue on Studies in Mathematical and Empirical Finance, Mathematical Methods of Operations Research*, Vol. 69/3, July, 2009

http://www.springerlink.com/content/1432-2994/69/3/

4. Bol, G., Rachev, S. T., Würth, R., (Editors), *Risk Assessment: Decisions in Banking and Finance*, Springer/Physika, 2009

http://www.springer.com/business+%26+management/finance/book/978-3-7908-2049-2

5. Rachev, S. T. (Editor), *Handbook of Computational and Numerical Methods in Finance*, Birkhäuser, Boston, 2004 http://www.springer.com/birkhauser/mathematics/book/978-0-8176-3219-9

6. Bol, G., Nakhaeizadeh, G., Rachev, S. T., Rieder, T., Vollmer, K., (Editors), *Credit Risk: Measurement, Evaluations and Management*, Springer Verlag, Physika-Verlag Series, Heidelberg, NY, 2003

http://www.springer.com/business+%26+management/finance/book/978-3-7908-0054-8

7. Rachev S. T. (Editor), *Handbook of Heavy Tailed Distributions in Finance*, North Holland Handbooks of Finance, Elsevier/North-Holland, Amsterdam, Boston, London, NY, 2003

http://www.elsevier.com/wps/find/bookdescription.cws_home/622468/description#description

8. Rachev, S. T. (Editor), *Mathematical Models in Market and Credit Risk Editor*, Mathematical Methods of Operations Research, Vol. 55/2, 2002, Springer, NY

http://www.springerlink.com/content/1432-2994/55/2/

9. Mittnik, S., Rachev, S. T., (Editors), *Stable Non-Gaussian Models in Finance and Econometrics*, Mathematical and Computer Modeling, Vol. 29, No-10-12, 1999, Pergamon, NY

http://www.sciencedirect.com/science/journal/08957177/29

10. Mittnik, S., Rachev, S. T., (Editors), *Distributional Modeling in Finance*, Mathematical and Computer Modeling, Vol. 29, No-10-12, 1999, Pergamon, NY

http://www.sciencedirect.com/science/journal/08957177/29

11. Heyde, C., Prohorov, Yu., Pyke, R., Rachev, S. T., (Editors), *Athens Conference on Applied Probability and Time Series Analysis*, Springer Verlag, 1995

http://www.springer.com/mathematics/probability/book/978-0-387-94788-4

12. Anastassiou, G., Rachev, S. T., (Editors), *Approximation, Probability and Related Fields*, Plenum Press, New York and London, 1994

http://books.google.com/books?id=w-vuAAAAMAAJ&q=Approximation,+Probability+and+Related+Fields&dq=Approximation,+Probability+and+Related+Fields

Publications (2009-2020)

NR denotes non-refereed papers, including papers in collected volumes, invited survey papers, and conference proceedings

2021

1. SV Stoyanov, ST Rachev, A Shirvani, FJ Fabozzi. Option pricing in an investment risk-return setting. *Applied Economics,* 1-14. DOI: 10.1080/00036846.2021.1980490.

2. Mahanama, T., Shirvani, A. & Rachev, S. A Natural Disasters Index. *Environ Econ Policy Stud*. https://doi.org/10.1007/s10018-021-00321-x

3. Abootaleb Shirvani, Frank J. Fabozzi, Boryana Racheva-Iotova, Svetlozar T. Rachev. Option Pricing with Greed and Fear Factor: The Rational Finance Approach. *Journal of Derivatives*; DOI: 10.3905/jod.2021.1.138
4. Liu, Y., Djurić, P. M., Kim, Y. S., Rachev, S. T., & Glimm, J. Systemic Risk Modeling with Lévy Copulas*. Journal of Risk and Financial Management*, 14(6), 251.
5. Mahanama, T., Shirvani, A., & Rachev, S. (2021). Global Index on Financial Losses due to Crime in the United States. *J. Risk Financial Manag*. 2021, 14(7), 315; https://doi.org/10.3390/jrfm14070315
6. Hu, Y., Lindquist, W. B., & Rachev, S. T. (2021). Portfolio Optimization Constrained by Performance Attribution. *Journal of Risk and Financial Management*, 14(5), 201.
7. A. Shirvani, S.V. Stoyanov, F.J. Fabozzi, and S.T. Rachev. Equity premium puzzle or faulty economic modelling? *Rev Quant Finan Acc*. DOI: 10.1007/s11156-020-00928.
8. **(NR)** Davide Lauria, Svetlozar T. Rachev, A. Alexandre Trindade. Global and Tail Dependence: A Differential Geometry Approach. arXiv:2106.05865
9. **(NR)** Hu, Y., Shirvani, A., Lindquist, W. B., Fabozzi, F. J., & Rachev, S. T. (2021). Market Complete Option Valuation using a Jarrow-Rudd Pricing Tree with Skewness and Kurtosis. arXiv preprint arXiv:2106.09128.
10. **(NR)** Hu, D., Sayit, H., & Rachev, S. T. (2021). Moment Matching Method for Pricing Spread Options with Mean-Variance Mixture L\'evy Motions. arXiv preprint arXiv:2109.02872.
11. **(NR)** Shirvani, A., Mittnik, S., Lindquist, W. B., & Rachev, S. T. (2021). Bitcoin Volatility and Intrinsic Time Using Double Subordinated Levy Processes. arXiv preprint arXiv:2109.15051.

2020

12. Y Hu, A Shirvani, WB Lindquist, FJ Fabozzi, ST Rachev. Option Pricing Incorporating Factor Dynamics in Complete Markets. *Journal of Risk and Financial Management,* 13 (12), 321. DOI: https://doi.org/10.3390/jrfm13120321.
13. A. Shirvani, S. T. Rachev & F. J. Fabozzi. Multiple subordinated modeling of asset returns: Implications for option pricing, *Econometric Reviews*, 40:3, 290-319. DOI: 10.1080/07474938.2020.1781404
14. A. Shirvani, Y. Hu, S.T. Rachev, and F.J. Fabozzi. "Option pricing with mixed Lévy subordinated price process and implied probability weighting function." *The Journal of Derivatives*. DOI: 10.3905/jod.2020.1.102.
15. A. Shirvani, S.V. Stoyanov, S.T. Rachev, F.J. Fabozzi. A New Set of Financial Instruments, *Front. Appl. Math,* DOI: 10.3389/fams.2020.606812.
16. Y. Hu, A. Shirvani, S. Stoyanov, Y.S. Kim, F.J. Fabozzi, and S.T. Rachev. Option Pricing in Markets with Informed Traders, *International Journal of Theoretical and Applied Finance.* DOI: 10.1142/S0219024920500375

2019

17. Stoyanov, S. V., Rachev, S. T., Mittnik S., and Fabozzi, F., “Pricing Derivative in Hermite Market”, *International Journal of Theoretical and Applied Finance.* Vol. 22, No. 6 (2019) World Scientific Publishing Company DOI: 10.1142/S0219024919500316

18. YS Kim, S Stoyanov, S Rachev, FJ Fabozzi, “Enhancing binomial and trinomial equity option pricing models”, *Finance Research Letters* 28, 185-190.

19. (**NR**) A. Shirvani, S.T. Rachev, F.J. Fabozzi “A rational finance explanation of the stock predictability puzzle”, *arXiv preprint arXiv:1911.02194*.

2018

20. ML Bianchi, ST Rachev, FJ Fabozzi, “Calibrating the Italian smile with time-varying volatility and heavy-tailed models”, *Computational Economics* 51 (3), 339-378.

21. YS Kim, SV Stoyanov, ST Rachev, FJ Fabozzi, “Another Look at the Ho–Lee Bond Option Pricing Model”, *The Journal of Derivatives* 25 (4), 48-53.

2017

22. Y.S. Kim, S. Stoyanov, S. Rachev, F. Fabozzi, “Multi-Purpose Binomial Model: Fitting all Moments to the Underlying Geometric Brownian Motion”, Economics Letters, Volume 145, August 2016, pp 225-229.

23. F. Fabozzi, M.L. Bianchi, S. Rachev, “Calibrating the Italian Smile with Time-Varying Volatility and Heavy-Tailed Models”, Computational Economics, June 2016.

24. ML Bianchi, ST Rachev, FJ Fabozzi,” Tempered stable Ornstein–Uhlenbeck processes: A practical view”. *Communications in Statistics-Simulation and Computation* 46 (1), 423-445.

25. G Torri, R Giacometti, S Rachev, “Option Pricing in Non-Gaussian Ornstein-Uhlenbeck Markets”, *11th Financial Management of Firms and Financial Institutions,* 1-10.

26. (**NR**) S Rachev, FJ Fabozzi, B Racheva-Iotova, “Option Pricing with Greed and Fear Factor: The Rational Finance Approach”, *arXiv preprint arXiv:1709.08134.*

27. (**NR**) SV Stoyanov, ST Rachev, S Mittnik, FJ Fabozzi, “Pricing derivatives in Hermite markets”, *arXiv preprint arXiv:1709.09068.*

28. (**NR**) S Rachev, S Stoyanov, FJ Fabozzi, “Behavioral Finance Option Pricing Formulas Consistent with Rational Dynamic Asset Pricing”, *arXiv preprint arXiv:1710.03205.*

29. (**NR**) S Rachev, S Stoyanov, S Mittnik, FJ Fabozzi, “Behavioral Finance--Asset Prices Predictability, Equity Premium Puzzle, Volatility Puzzle: The Rational Finance Approach”, *arXiv preprint arXiv:1710.03211.*

30. (**NR**) SV Stoyanov, YS Kim, ST Rachev, FJ Fabozzi, “Option pricing for Informed Traders”, *arXiv preprint arXiv:1711.09445.*

31. ST Rachev, SV Stoyanov, FJ Fabozzi, “Financial markets with no riskless (safe) asset”, *International Journal of Theoretical and Applied Finance* 20 (08), 1750054.

2016

32. Y.S. Kim, S. Stoyanov, S. Rachev, F. Fabozzi, “Multi-Purpose Binomial Model: Fitting all Moments to the Underlying Geometric Brownian Motion”, Economics Letters, Volume 145, August 2016, pp 225-229.

33. F. Fabozzi, M.L. Bianchi, S. Rachev, “Calibrating the Italian Smile with Time-Varying Volatility and Heavy-Tailed Models”, Computational Economics, June 2016.

2015

34. Vincenzo Russo, Rosella Giacometti, Svetlozar T. Rachev, and Frank J. Fabozzi, “A Three-Factor Model For Mortality Modeling,” North American Actuarial Journal, Vol. 19, Issue 2 (2015), pp.129-141.

2014

35. Barret Pengyuan Shao, Svetlozar Rachev, Yu Mu, “Applied Mean-ETL Optimization in Using Earnings Forecasts”, International Journal of Forecasting, January 2015, pp 561-567.

36. Xiaoping Zhou, Dmitry Malioutov, Frank J. Fabozzi and Svetlozar Rachev, “Smooth Monotone Covariance for Elliptical Distributions and Applications in Finance”, Quantitative Finance, Volume 14, Number 9, September 2014, pp 1555-1571.

37. Michael Stein and Svetlozar Rachev, “Dilution of Sector Exposures: When Does Unintended Indexing Happen”, Journal of Investment Management, Volume 12, No. 3, Third Quarter 2014, pp 59-72.

38. Mahmoud Bekri, Young Shin (Aaron) Kim, and Svetlozar Rachev, “Tempered Stable Models for Islamic Finance Asset Management”, International Journal of Islamic and Middle Eastern Finance and Management, 2014 Volume 7, No. 1 pp 37-60.

2013

39. Barret Pengyuan Shao, Svetlozar Rachev, “Mean-ETL Optimization of A Global Portfolio”, The Journal of Investing, Winter 2013, Volume 22, No. 4 pp 115-119.

40. Michael Stein, Svetlozar T. Rachev, “Performance Identification for REITs by Using Draw Measures”, International Real Estate Review, 2013, Vol. 16, No. 3, pp 230-251.

41. J.B. Guerard Jr, S.T. Rachev, B.P.Shao, “Efficient Global Portfolios: Big Data and Investment Universes”, IBM Journal of Research and Development, September/October 2013, Vol. 57, No. 5 Paper 11.

42. Krasimir Milanov, Ognyan Kounchev, Frank J. Fabozzi, Young Shin Kim, and Svetlozar T. Rachev, "A Binomial-Tree Model for Convertible Bond Pricing," the Journal of Fixed Income, Winter 2013, Vol. 22, No. 3: pp 79-94.

43. Stoyan V. Stoyanov, Svetlozar T. Rachev, and Frank J. Fabozzi, "Computational Aspects of Risk Estimation in Volatile Markets: Survey," Studies in Nonlinear Dynamics and Econometrics, Vol. 17, Issue 1 (February 2013), pp. 103-120.

44. Sven Klingler, Young Shim Kim, Svetlozar T. Rachev, and Frank J. Fabozzi, "Option Pricing with Time-Changed Lévy Processes" Applied Financial Economics Vol 23, No. 15 (August 2013), pp. 1231-1238.

45. Stoyan V. Stoyanov, Svetlozar Rachev, Frank J. Fabozzi, "CVaR Sensitivity with respect to tail thickness", Journal of Banking & Finance, (2013) pp 977-988.

2012

46. Hassan Fallaghoul, S.M. Hashemiparast, Young Shin Kim, Svetlozar T. Rachev, Frank J. Fabozzi, "Approximation of Stable and Geometric Stable Distribution", Journal of Statistical and Econometric Methods, November 30, 2012, Vol. 1, No. 3: pp 97-123.

47. Stoyan V. Stoyanov, Svetlozar T. Rachev and Frank J. Fabozzi, "Sensitivity of Portfolio VaR and CVaR to Portfolio Return Characteristics," Annals of Operations Research, April 27, 2012, Online 10.1007/s10479-012-1142-1.

    http://www.springerlink.com/content/3q6321h620645758/

48. Naoshi Tsuchida, Xiaoping Zhou, Svetlozar Rachev, "Mean-ETL Portfolio Selection under Maximum Weight and Turnover Constraints Based on Fundamental Security Factors," The Journal of Investing, Spring 2012, pp 1-11.

    http://www.iijournals.com/doi/abs/10.3905/joi.2012.21.1.014

49. Young Shin Kim, Frank J. Fabozzi, Zuodong Lin and Svetlozar T. Rachev, "Option Pricing and Hedging under a Stochastic Volatility Levy Process Model." Review of Derivatives Research Vo.l. 15 No. 1 (2012), pp. 81-87.

    http://www.springerlink.com/content/0257w70720g66024/

50. Stoyan V. Stoyanov, Svetlozar T. Rachev, and Frank J. Fabozzi, "Metrization of Stochastic Dominance Rules." International Journal of Theoretical and Applied Finance, Vol. 15, Issue 2 (March 2012), pp. 1250017-1-1250017-22.

    http://www.worldscientific.com/doi/abs/10.1142/S0219024912500173

51. Matthias Scherer, Svetlozar T. Rachev, Young Shin Kim, and Frank J. Fabozzi, "Approximation of Skewed and Leptokurtic Return Distributions." Applied Financial Economics Vol. 22, Issue 16 (2012), pp. 1305-1316.

    http://www.tandfonline.com/doi/abs/10.1080/09603107.2012.659342

2011

52. Jan S. HennekeMitov, Svetlozar T. Rachev. Frank J. Fabozzi, and Metodi Nikolov, "MCMC- Based Estimation of Markov Switching ARMA-GARCH Models," *Applied Economics,* Vol. 43*,* Issue 3, 2011, pp. 259 – 271.

http://www.tandfonline.com/doi/abs/10.1080/00036840802552379

53. Stoyan Stoyanov, Svetlozar T. Rachev, Boryana Racheva-Yotova, and Frank J. Fabozzi, "Fat-Tailed Models for Risk Estimation," *Journal of Portfolio Management* Winter 2011, Vol. 37, No. 2: pp. 107-117

http://www.iijournals.com/doi/abs/10.3905/jpm.2011.37.2.107

54. **(NR)** Möller, C., Rachev, S. T., Kim, Y., Fabozzi, F., *Innovation Processes in Logically Constrained Stationary Time Series,* in Martin T. Wells and Ashis SenGupta (eds), *Festschrift volume for Prof. S. Rao Jammalamadaka,* Springer. Advances in Directional and Linear Statistics 2011, pages 173-188, DOI: 10.1007

http://www.springerlink.com/content/k67k81r003837502/

55. Vygantas Paulauskas, Svetlozar Rachev, and Frank J. Fabozzi, "Comment on 'Weak Convergence to a Matrix Stochastic Integral with Stable Processes'." Econometric Theory Cambridge University Press, 2011, Volume 27, Issue 04, pages 907-911 http://journals.cambridge.org/action/displayFulltext?type=1&fid=8325136&jid=ECT&volumeId=27&issueId=04&aid=8325134

56. Young Shin Kim, Svetlozar T. Rachev, Michele Leonardo Bianchi, Ivan Mitov, and Frank J. Fabozzi, *"*Time Series Analysis for Financial Market Meltdowns*." Journal of Banking & Finance,* 2011, vol. 35, issue 8, pages 1879-1891

http://www.sciencedirect.com/science/article/pii/S0378426610004541

57. Edward Sun, Omid Rezania, Svetlozar T. Rachev, and Frank J. Fabozzi, *"*Analysis of the Intraday Effects of Economic Releases on the Currency Market*." Journal of International Money and Finance* Volume 30, Issue 4, June 2011, Pages 692-707

http://www.sciencedirect.com/science/article/pii/S0261560611000441

58. Vincenzo Russo, Rosella Giacometti, Sergio Ortobelli, Svetlozar T. Rachev, and Frank J. Fabozzi, *"*Calibrating Affine Stochastic Mortality Models Using Term Assurance Premiums*" Insurance: Mathematics and Economics* Volume 49, Issue 1, July 2011, Pages 53-60 http://www.sciencedirect.com/science/article/pii/S0167668711000229

59. Michael Stein and Svetlozar T. Rachev, "Flow-Induced Redemption Costs in Funds of Funds", Journal of Derivatives Use, Trading, and Regulation, Volume 17, Issue 3, 2011, Pages 253-265

http://www.palgrave-journals.com/jdhf/journal/v17/n3/abs/jdhf201112a.html

60. Michael Stein and Svetlozar T. Rachev, "Style Neutral Funds of Funds: Portfolio Diversification or Deadweight?", Journal of Asset Management, Volume 11, Issue 3, 2011, Pages 417-434

http://www.palgrave-journals.com/jam/journal/v11/n6/abs/jam20105a.html

61. Christoph Moller, Svetlozar Rachev, and Frank J. Fabozzi, “Balancing Energy Strategies in Electricity Portfolio Management.” Volume 33, Issue 1, January 2011, Pages 2-11 http://www.sciencedirect.com/science/article/pii/S0140988310000605

2010

62. Mitov, I. K., Rachev, S. T., Fabozzi, F. J., *Approximation of aggregate and extremal losses within the very heavy tails framework,* in *Quantitative Finance, 2010, 1-10*

http://www.tandfonline.com/doi/abs/10.1080/14697681003718414

17. Bianchi M. L., Rachev, S.T., Kim, Y.S., Fabozzi F.J., *Tempered infinitely divisible distributions and Processes*, in Theory *of Probability and Its Applications (TVP), TVP (Russia),* 2010, v. 55, No.1, 59-86 *Society for Industrial and Applied Mathematics (SIAM)*, *TPA,* 2011, v.55, No 1.

http://epubs.siam.org/doi/abs/10.1137/S0040585X97984632

18. Kim, Y., Rachev, S. T., Leondardo Bianchi, M., Fabozzi, F., *Tempered stable and tempered infinitely divisible GARCH models*, in *Journal of Banking and Finance*, 34, 2096-2109, 2010

http://www.sciencedirect.com/science/article/pii/S0378426610000245

19. Grebeck M.J., Rachev S.T., Fabozzi, F.J. *Stochastic Programming and Stable Distributions in Asset Liability Management*, in *The Journal of Risk*, 29-47, 12/2, 2009/2010

http://www.risk.net/journal-of-risk/technical-paper/2161067/stochastic-programming-stable-distributions-asset-liability-management

20. Stein, M., Rachev, S., T., Stoyanov, S., *Broad Market Risk for Sector Fund of Funds: A Copula-Based Dependence Approach*, in *Investment Management and Financial Innovations*, 7/2, 36-48, 2010

http://130.203.133.150/viewdoc/summary?doi=10.1.1.180.4555

21. Stoyanov, S, Racheva-Iotova, B., Rachev, S. T., Fabozzi, F., *Stochastic models for risk estimation in volatile markets: a survey*, in *Annals of Operations Research*: 176/1, 293 - 309, 2010

http://www.springerlink.com/content/007721l626171804/

22. Serbinenko, A., Rachev, S. T., *A new hybrid model for intraday spot foreign exchange trading accounting for heavy tails and volatility clustering*, in *Journal of Computational Analysis and Applications*, 12/1-B, 337-360, 2010

http://statistik.ets.kit.edu/download/technical_reports/2_new_fx_model.pdf

23. Kabasinkas, A., Rachev, S. T., Sakalauskas, L., Sun, W., Belovas, I., *Stable Mixture model with dependent stats for financial returns series exhibiting short histories and periods of strong passivity,* in *Journal of Computational Analysis and Applications (JoCAAA),* 12/1-B, 268-292, 2010

24. Caviezel V., Ortobelli,S., Rachev S., *Semiparametric estimators for heavy-tailed distributions*, in *Journal of Concrete and Applicable Mathematics*, 8/1, 150-164, 2010

http://statistik.ets.kit.edu/download/COR_AMAT_2008.pdf

25. Biglova, A., Ortobelli S., Rachev, S.T., Stoyanov, S., A note on the impact of nonlinear reward and risk measures, in Journal of Applied Functional Analysis, 5/2, 194-202, 2010

http://www.ams.sunysb.edu/~rachev/publication/nonlinear_ratios.pdf

26. Ortobelli, S., Biglova, A., Rachev, S.T., Stoyanov, S., *Portfolio Selection Based on a Simulated Copula*, in *Journal of Applied Functional Analysis*, 5/2, 177-193, 2010

https://statistik.ets.kit.edu/download/JAFA-simulated_copula.pdf

27. Kanamura, T., Rachev, S.T., Fabozzi, F., *A profit model for spread trading with application to energy futures*, in *The Journal of Trading*, 5/1, 48-62, 2010

http://www.iijournals.com/doi/abs/10.3905/jot.2010.5.1.048

28. **(NR)** Rachev, S. T., Racheva-Iotova, B., Stoyanov, S., *Capturing fat tails*, in *Risk* (Risk Management, Derivatives and Regulation), May 2010, 72-77, 2010

29. **(NR)** Chernobai, A., Menn, C., Rachev, S. T., Trueck, S., *Estimation of Operational Value-at-Risk in the Presence of Minimum Collection Threshold: An Empirical Study*, in Model *Risk: Identification, Measurement and Management*, Editors: Daniel Roesch and Harald Schedule, Risk Books ,359-419, London, 2010

http://www.ams.sunysb.edu/~rachev/publication/OpRisk_missingdata-20091101.pdf

30. Sergio Ortobelli , Svetlozar Rachev, and Frank J. Fabozzi, “Risk Management and Dynamic Portfolio Selection with Stable Paretian Distributions.” *Journal of Empirical Finance*, Vol 17, Issue 2 (March 2010), pp. 195-211.

http://www.sciencedirect.com/science/article/pii/S0927539809000656

31. Young Shin Kim, Svetlozar T. Rachev, Michele Bianchi, and Frank J. Fabozzi, “Computing VaR and AVaR in Infinitely Divisible Distributions.” *Probability and Mathematical Statistics* Vol. 30 (2010), pp. 223-245 (Prior to publication, listed on SSRN’s Top Ten Download list for ESSM Specific Distributions (Topic))

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1400965

32. **(NR)** A.Biglova, S.Ortobelli, S. Rachev, F. Fabozzi, .*Modeling, Estimation and Optimization of Equity Portfolios with Heavy-tailed Distributions*. in *Optimizing Optimization, The Next Generation of Optimization - Applications and Theory*, Editor Stephen Satchel, Academic Press/Elsevier, 2010, 117-141

https://statistik.ets.kit.edu/download/paperOptimizationbook-Submitted%281%29.pdf

33. Ortobelli S., Rachev S. and Fabozzi F. *Risk management and dynamic portfolio selection with stable Paretian distributions*, in *Journal of Empirical Finance*, 2010, Vol. 17, Issue 2, pages 195-211

http://www.sciencedirect.com/science/article/pii/S0927539809000656

34. Mitov. I. Rachev, S. T., Fabozzi, F., *Approximation of Aggregate and Extremal Losses Within the Very Heavy Tails Framework*, in *Quantitative Finance*, 2010, Vol. 10, pages1153-1162

http://www.tandfonline.com/doi/abs/10.1080/14697681003718414

35. **(NR)** Rachev, S. T., Racheva-Iotova, B., Stoyanov, S., Fabozzi, F., *Risk Management and Portfolio Optimization for Volatile Markets*, in *The Handbook of Portfolio Construction: Contemporary Applications of Markowitz Techniques*, John Guerard, Jr. (editor) Springer. 2010, Part II, pages 493-508.

http://www.springerlink.com/content/v126080q46u82855/

36. Stoyanov, S., Racheva-Iotova, B., Rachev, S. T., Fabozzi, F., *Stochastic models for risk estimation in volatile markets: A survey,* in *Annals of Operations Research* 2010, *Vol. 176, No.1.*
http://www.springerlink.com/content/007721l626171804/

37. **(NR)** Sereda, E., Bronshtein, E., Rachev, S. T., Fabozzi, F., Sun, W., Stoyanov, S., *Distortion Risk Measures in Portfolio Optimization* in *The Handbook of Portfolio Construction: Contemporary Applications of Markowitz Techniques,* John Guerard, Jr. (editor) Springer. DOI 10.1007, ch 17, pages 493 – 508.

http://www.springerlink.com/content/x6627vl731282338/

38. Ortobelli S., Rachev S. T., Fabozzi F., *Risk Management and Dynamic Portfolio Selection with Stable Paretian Distributions,* in Special issue of the *Journal of Empirical Finance in honor of Benoit Mandelbrot*. March 2010, Vol. 17, Issue 2, Pages 195-211.

http://www.sciencedirect.com/science/article/pii/S0927539809000656

39. **(NR)** Michele Leonardo, B., Rachev,S. T., Kim, Y., Fabozzi, F., *Tempered Stable Distributions and Processes in Finance: Numerical Analysis,* in *Mathematical Methods for Actuarial Sciences and Finance, Springer. 2010, 33-42, DOI: 10.1007*
http://www.springerlink.com/content/p6gll77127061w27/

40. Michael Stein, Svetlozar T. Rachev and Stoyan V. Stoyanov , "Broad Market Risk for Sector Funds of Funds: A Copula-Based Dependence Approach", Journal of Investment Management and Financial Innovation, Volume7, Issue 2,2010, Pages 36-44 http://businessperspectives.org/journals_free/imfi/2010/imfi_en_2010_02_Stein.pdf

2009

42. Kring, S., Rachev, S.T., Hochstotter, M., Fabozzi, F. Michele Bianchi, *Multi-Tail Elliptical Distributions*. in *The Econometrics Journal*, 12/2, 272-291, 2009

43. Menn, C., Rachev, S.T., *Smoothly truncated stable distributions, GARCH-models, and option pricing, Mathematical Methods in Operational Research*, 69, 411-438, 2009

44. Stoyanov, S. V., Rachev, S. T., Fabozzi, F.: *Construction of probability metrics on classes of investors*, in *Economics Letters* ,103,45-48, 2009

45. Sun, W., Rachev, S. T., Fabozzi F., Kalev, P., *A new approach to modeling co-movement if international equity markets: evidence of unconditional copula-based simulation of tail dependence*, in *Empirical Economics*, Vol. 36, 201-229, 2009.

46. Wang, D., Rachev, S., Fabozzi, F., *Pricing of Credit Default Index Swap Tranches with One-Factor Heavy-Tailed Copula Models*, in *Journal of Empirical Finance*, Vol. 16, 201-215, 2009

47. Wang, D., Rachev, S., Fabozzi, F., *Pricing Tranches of a CDO and SDS Index: Recent Advances and Future Research*, in *Journal of Empirical Finance*, Vol 16 263-286, 2009

48. Serbinenko, A., Rachev, S. T., *Intraday spot foreign exchange market. Analysis of efficiency, liquidity and volatility*, in *Investment Management and Financial Innovations,* 6/4, 35-45, 2009

49. Fraenkle, J., Rachev, S. T.: *Review: Algorithmic Trading*, in *Investment Management and Financial Innovations*, Vol. 6, issue 1, 7-20, 2009

50. Stein, M., Rachev, S. T., Stoyanov, S., *R-ratio optimization with heterogeneous assets using genetic algorithm*, in *Investment Management and Financial Innovations*, 6/ 2, 117-134, 2009,

51. Papenbrock, J., Rachev, S. T., Hoechstoetter, M., Fabozzi, F., *Price calibration and hedging of correlation dependent credit derivatives using structural model with alpha-stable distributions*, in *Applied Financial Economics*, 19/17, 1401-1416 2009

52. Sun W., Rachev, S. T., Fabozzi, F., *A new approach for using Levy processes for determining high-frequency value-at-risk predictions*, in *European Financial Management*, 15/2, 340-361, 2009.

53. Kabasinskas, A., Rachev, S. T., Sakalauskas, L., Sun, W., Belovas, I., *Alpha-stable paradigm in financial markets*, in *Journal of Computational Analysis and Applications*, 11/4, 641-668, 2009.

54. Biglova, A., Rachev, S. T., Stoyanov, S., Ortobelli, S., *Analysis of the Factors Influencing Momentum Profits*, in *Journal of Computational Analysis and Applications*, Vol.4, No1, 2009,81-106

55. **(NR)** Rachev, S.T., Stein, M., Sun, W., *Copula Concepts in Financial Markets*, in *Portfolio Institutionell*, 4, 12 – 15, 2009

56. **(NR)** Wang, D., Rachev, S., Fabozzi, F., *Pricing Tranches of a CDO and SDS Index: Recent Advances and Future Research* in: G. Bol et al. *(eds.), Risk Assessment: Decisions in Banking and Finance*, Springer/Physika, 263-286, 2009

57. **(NR)** Kim, Y.S., Rachev, S.T., Bianchi, M.-L., Fabozzi, F., *A new tempered stable distribution and its application to finance*, in: G. Bol et al. *(eds.), Risk Assessment: Decisions in Banking and Finance*, Springer/Physika, 77-110, 2009

58. **(NR)** Kring, S., Rachev, S., Höchstötter, M., Fabozzi, F., *Estimation of Alpha-Stable Sub-Gaussian Distributions for Assets Returns*, in: G. Bol et al. *(eds.), Risk Assessment: Decisions in Banking and Finance*, Springer/Physika, 111-152, 2009

59. **(NR)** Rachev, S., Martin, B., Racheva-Iotova, B., Stoyanov, S., *Stable ETL optimal portfolios and extreme risk management*, in: G. Bol et al. *(eds.), Risk Assessment: Decisions in Banking and Finance*, Springer/Physika, 235-262, 2009

60. Georgi K. Mitov, Svetlozar T. Rachev, Young Shin Kim, and Frank J. Fabozzi. "Barrier Option Pricing by Branching Processes." *International Journal of Theoretical and Applied Finance*, Vol. 12, No. 7 (2009), pp. 1055-1073.

61. Mitov G. Rachev, S. T., Kim, Y., Fabozzi, F., *Barrier Option Pricing by Branching Processes*, in *International Journal of Theoretical & Applied Finance (IJTAF*) *2009,* Vol. 12, No. 7, pp. 1055-1073.

62. Kring, S. Rachev, S. T., Hoechstoetter, M., Fabozzi, G., Leonardo Bianchi, M., *Multi-Tail Generalized Elliptical Distributions for Asset Returns* in *The Econometrics Journal*, July 2009, Vol. 12, Issue 2, pp. 272-291

63. **(NR)** Sun, W., Rachev, S. T., Fabozzi, F.,*A New Approach of Using L´evy Processes for Determining High-Frequency Value-at-Risk Predictions*, in *European Financial Management Journal* dedicated to the EFM-EDHEC Risk and Asset Management Symposium, April 2008, EDHEC Business School, Paris, France 2009, Vol. 15, no. 2, pp. 340-361.

64. Papenbrock, J., Rachev, S. T., Hoechstoetter, M., Fabozzi, F., *Price Calibration and Hedging of Correlation Dependent Credit Derivatives using a Structural Model with alpha-Stable Distributions,* in *Applied Financial Economics.* 2009, 19, pages 1401 – 1416.

65. Michael Stein, Svetlozar T. Rachev and Stoyan V. Stoyanov , "*R-Ratio Optimization for Heterogeneous Assets using Genetic Algorithm",* Journal of Investment Management and Financial Innovation, Volume 6, Issue 2, 2009, Pages 117-134

List of Earlier Publications of Svetlozar Rachev (1977-2008)

2008

1. Stoyanov, S., Rachev, S. T., Ortobelli, S., Fabozzi, F., *Relative Deviation Metrics and the Problem of Strategy Replication*, in Journal *of Banking and Finance.* ***32,*** 199-206,2008

2. Rachev, S., Ortobelli, S., Stoyanov, S., Fabozzi, F., Desirable *Properties of an Ideal Risk Measure in Portfolio Theory*, in International *Journal of Theoretical and Applied Finance***,** 1(1), 19 – 54, 2008

3. Sun, S., Rachev, S. T., Fabozzi, F., Falev, P., *Fractals in Trade Duration: Capturing Long-Range Dependence and Heavy Tailedness in Modelling Trade Duration*, in *Annals of Finance*,**4,** 217-241, 2008

4. Kim, Y.S., Rachev, S.T., Bianchi, M.-L., Fabozzi, F., Financial *market models with Levy processes and time-varying volatility*, in *Journal of Banking and Finance*, **32/7,**1363-1378, 2008

5. Sun, W., Rachev, S. T., Stoyanov, S., Fabozzi, F., *Multivariate Skewed Student's t Copula in Analysis of Nonlinear and Asymmetric Dependence in German Equity Market*, in *Studies in Nonlinear Dynamics & Econometrics*, Volume **12.2/3**, 1-35, 2008

6. Giacometti, R., Rachev, S., Chernobai, A., Bertocchi, M., Aggregation *Issues in Operational Risk*, in *The Journal of Operational Risk,* **3/3**, 3-23, 2008

7. Ortobelli, S., Rachev, S., Shalit, H., Fabozzi, F., *Orderings and Risk Probability Functionals in Portfolio Theory*, in *Probability and Mathematical Statistics*, **28/2**, 203-234, 2008

8. Giacometti, R., Rachev, S. T., *Funds of hedge funds: a comparison among different portfolio optimization models implementing the zero-investment strategy,* in *Investment management and Financial Innovations*, **5/3,** 19-29, 2008

9. Biglova, A., Kanamura, T. Rachev, S.T., Stoyanov, S., *Modeling, risk assessment and portfolio optimization of energy futures*, in *Investment Management and Financial Innovations*, 5/1, 2008,17-31

10. Stein. M., Rachev, S. T., Sun, W., *The World of Funds of Funds*, in *Investment Management and Financial Innovations*, **5/2**,7-15, 2008

11. **(NR)** Rachev, S. T., Sun, W., Fabozzi, F., A *New Solution for Finance- Stable Family Models,* in *Karlsruhe Transfer*, No 37, 2008, 26-27

12. **(NR)** Hansen, F., Rachev S., Trueck, S., *Hedgefonds im Risikomanagement*, in *Risiko-Manager*, Jahrbuch, 2008, 190-199

13. **(NR)** Rachev, S., *Every risk also holds an opportunity*, Interview for Financial *Services Inside*, September 2008, page 8

14. **(NR)** Sun, W., Rachev, S. T., Fabozzi, F., *Long-Range Dependence, Fractal Processes, and*

15. *Intraday Trading*, in: Detlef Seese, Christof Weinhardt, and Frank Schlottmann (eds.), *Handbook on Information Technology in Finance*, Springer, 2008, 543- 586

16. **(NR)** Bagasheva, B., Rachev, S. T., Hsu, J., Fabozzi, F., *Bayesian Applications to the Investment Management Process*" in: Detlef Seese, Christof Weinhardt, and Frank Schlottmann (eds.), *Handbook on Information Technology in Finance*, Springer, 2008, 587- 612

17. **(NR)** Kim, Y., Rachev, S. T., Chung, D. M., Bianchi, M., *A Modified Tempered Stable Distribution with Volatility Clustering*, in *New Developments in Financial Modeling*,

Editors J. O. Soares, J. P. Pina and M. C. Lopes, Cambridge Scholars Publishing, 344-365

18. **(NR)** Safari, A., Sun, W., Seese, D., Rachev, S. T., *Realized Volatility and Correlation Estimators under Non-Gaussian Microstructure Noise,* In: *Economic Dynamics Theory, Games and Empirical Studies*, Edt: Chester W. Hurlington, NOVA Science Publishers, 173-199, 2008

19. **(NR)** Rachev, S. T., Menn, C., Fabozzi, F., *Risk Measures and Portfolio Selection*., in Frank J. Fabozzi (ed.), *Handbook of Finance,* **Vol 3**, 101-108, John Wiley & Sons, 2008

20. **(NR)** Rachev, S. T., Menn, C, Fabozzi, F., B*lack-Scholes Option Pricing Model*, in: Frank J. Fabozzi (ed.), *Handbook of Finance,* **Vol 3**, 459-466, John Wiley & Sons, 2008.

21. **(NR)** Hoechstoetter, M., Rachev, S. T., Fabozzi, F., *Basic Data Description for Financial Modeling and Analysis*, in Frank J. Fabozzi (ed.), *Handbook of Finance,* **Vol.3**, 633 – 644, John Wiley & Sons, 2008

22. **(NR)** Rachev, S. T., Mittnik, S., Fabozzi, F., Focardi, S., Jasic, T., *Regression Analysis*, in: Frank J. Fabozzi (ed.), *Handbook of Finance,* **Vol 3**, 669-687, John Wiley & Sons, 2008

23. **(NR)** Rachev, S. T., Menn, C., Fabozzi, F., *Introduction to Stochastic Processes*, in: Frank J. Fabozzi (ed.), *Handbook of Finance,* **Vol 3**, 725-737, John Wiley & Sons, 2008

24. **(NR)** Stoyanov, S., Rachev, S., Fabozzi, F., *Principles of Optimization in Portfolio Selection*, in: Frank J. Fabozzi (ed.), *Handbook of Finance,* Vol **3**, 763-773, John Wiley & Sons, 2008

25. Ortobelli, S., Rachev, S. T., Shalit, H., Fabozzi, F., *Orderings and Risk Probability Functionals in Portfolio Theory*, in *Probability and Mathematical Statistics*, Vol. 28, No. 2, pp. 203-234, 2008

26. Stoyanov, S., Rachev, S., Fabozzi, F., *Probability Metrics with Applications in Finance*, in *Journal of Statistical Theory and Practice, special volume: Recent Advances in Applied Probability*, Volume 2, No2, June, 253-277, 2008

27. Ortobelli, S., Rachev, S. T., Shalit, H., Fabozzi, F., *Orderings and Probability Functionals Consistent with Preferences*, in *Applied Mathematical Finance*, 16/1, 81 – 102, 2008.

28. Stoyanov S., Rachev. S. *Asymptotic distribution of the sample average value-at-risk*, in *Computational Analysis and Applications*, 2008, Vol. 10 pages 465 -482.

29. Stoyanov S., Rachev. S. *Asymptotic distribution of the sample average value-at-risk in the case of heavy-tailed returns*, in *Journal of Applied Functional Analysis*, 2008, Vol. 3, pp. 443-461.

30. Dokov S., Stoyanov S., Rachev S.T., *Computing VaR and AVaR of Skewed-T Distribution*, in Journal *of Applied Functional Analysis*. 2008, Vol 3, pp. 189-209.

2007

31. Rachev, S. T., Jašić, T., Stoyanov, S., Fabozzi, F., *Momentum strategies based on reward–risk stock selection criteria*, in *Journal of Banking and Finance.* 31/8, 2325-2346, 2007

32. Rachev S., Stoyanov, S., Wu, C., Fabozzi F., *Empirical Analyses of Industry Stock Index Return Distributions for the Taiwan Stock Exchange*, in Annals *of Economics and Finance, 1, 21-31, 2007*

33. Giacometti, R., Rachev, S., Chernobai, A., Bertocchi, M., A *Consigli G. Heavy-Tailed Distributional Model for Operational Losses*, in *The Journal of Operational Risk,* 2**/1,** 55-90, 2007

34. Marinelli, C., D'Addona, S., Rachev, S. T., *A comparison of some univariate models for Value-at-Risk and expected shortfall*, in *International Journal of Theoretical and Applied Finance,* **10/6**, 1043-1075, 2007

35. Sun, W., Rachev, S. T., Fabozzi, F., *Fractal or I.I.D.: Evidence of Long-Range Dependence and Heavy Tailedness in Modelling German Equity Market Volatility*, in *Journal of Economics and Business.* **59**, 575-595, 2007.

36. Bierbrauer M., Menn, C., Rachev, S. T., Trück, S., *Spot and Derivative Pricing in the EEX Power Market*, in *Journal of Banking and Finance,* **31,** 3462-3485, 2007

37. Stoyanov, S. Rachev, S. T., Fabozzi, F., *Optimal Financial Portfolios*, in *Applied Mathematical Finance,* **14/5**, 401 -436, 2007

38. Samorodnitsky G., Rachev S. T., Kurz-Kim, J., Stoyanov, S., Asymptotic *Distribution of unbiased Linear Estimators in the Presence of Heavy-Tailed Regressors and Residuals*, in *Probability and Mathematical Statistics,* **27**, 275-302, 2007

39. Giacometti, R., Bertocchi M., Rachev, S. T., Fabozzi, F., *Stable Distributions in the Black-Litterman Approach to Asset Allocation*, in Quantitative *Finance,* ***7***,423-433,2007

40. M. Prokopczuk, S.T. Rachev, G. Schindlmayr, S. Trück, *Quantifying Risk in the Electricity Business: A RAROC-based Approach*, in *Energy Economics,* 29**/ 5,** 1033-1049, 2007

41. De Giovanni, D., Ortobelli, S., Rachev, S. T., *Delta hedging strategies comparison*, in *European Journal of Operational R*esearch, **185/3**, 1615-1631, 2007

42. **(NR)** Biglova, A., Rachev S. *Portfolio Performance Attribution*, in *Investment Management and Financial Innovations,* **4/3,** 7-22, 2007

2006

43. Menn C., Rachev, S., *Calibrated FFT-based Density Approximations of α-Stable Distributions*, in *Computational Statistics and Data Analysis,* **50** (8), 1891-1904, 2006

44. Hernandez, J., Rachev, S., *Construction of Levy Drivers for Financial Models*, in *Journal of Computational Analysis and Applications*, **8**(4), 335-356, 2006

45. Zhang, Y., Rachev, S., *Risk Attributions and Portfolio Performance Measurements,* in *Journal of Applied Functional Analysis*, 4(1), 373-402, 2006

46. Chernobai, A., Rachev, S., *Applying robust methods to operational risk modelling*, in *Journal of Operational Risk*, **1**(1), 2006

47. Stoyanov, S. , Samorodnitsky G., Rachev, S., Ortobelli S., *Computing the portfolio Conditional Value-at-Risk in the a-stable case*in *Probability and Mathematical Statistics* 26, 1-22, 2006

48. Lamantia F., Ortobelli S., Rachev S. T., *An Empirical Comparison among VaR Models and Time Rules with Elliptical and Stable Distributed Returns*, in *Investment Management and Financial Innovations* **3**, 8-29, (2006)

49. Lamantia, F., Ortobelli, S., Rachev, S. T., *VaR, CVaR and Time Rules with Elliptical and Asymmetric Stable Distributed Returns*, in *Investment Management and Financial Innovations* **4**, 19-39, 2006

50. Chernobai A., Burnecki K., Rachev, S., Trück S., Weron R., *Modelling Catstrophe Claims with Left-Truncated Severity Distribution*, in *Computational Statistics*, 21 ,537-555, 2006

51. **(NR)** Hausen, F., Rachev, S., Trück, S., *Eine emprische Untersuchung der Performance und Faktorenbestimmung von Hedgefonds***,** in *Risiko-Manager* , (4)6, 2006

52. **(NR)** Hausen, F., Rachev, S., Trück, S., *Performance-Analyse und Style Factors von Hedgefonds*, in *Risiko-Manager* , (**3**)6, 2006

53. **(NR)** Hausen, F., Rachev, S., Trück, S., *Klassifikation und Anlagestrategien von Hedgefond*, in *Risiko-Manager* , (**2**)6, 2006

54. **(NR)** Rachev, S., T. Chernobai, A., Menn, C., Empirical *Examination of Operational Loss Distributions*, in "*Perspectives on Operational Research*", M. Morlock at al.(eds) Deutscher Universitaet-Verlag/GWV Fachverlage GmbH, Wiesbaden, 379-401, 2006

2005

55. Menn C., Rachev, S., *A GARCH Option Pricing Model with α-Stable Innovations*, in *European Journal of Operations Research,* **163**(1), 201-209, 2005

56. Ortobelli S., Rachev S., Stoyanov, S., Fabozzi F., Biglova A., *The proper use of risk measures in portfolio theory*, in *International Journal of Theoretical and Applied Finance*, **8**(8), 1107-1133, 2005

57. Bertocchi M., Giacometti, R., Ortobelli, S., Rachev, S ., *The impact of different distributional hypothesis on returns in asset allocation*, in *Finance Letters*, **3**(1), 17-27, 2005

58. Grebeck, M., Rachev, S. T., *Stochastic programming methods in asset-liability management*, in *Investment Management and Financial Innovations,* **1,** 82-90, 2005

59. Hoechstoetter M., Rachev S. T., Fabozzi F., *Distributional Analysis of the Stocks Comprising the DAX 30*, in *Probability and Mathematical Statistics,* **25**(2), 363-383, 2005

60. Trück S., Rachev S. T., Credit *Portfolio Risk and PD Confidence Sets through the Business Cycle*, in Journal *of Credit Risk*, **1** (4), 2005

61. Muggele C., Rachev S. T., Trück S., Stable *Modeling of different European Power Markets,* in *Investment Management & Financial Innovations*, **3.** 37-42, 2005

62. **(NR)** Chernobai, A., Menn, C., Rachev, S., Trueck, S., *A Note on the Estimation of the Frequency and Severity Distribution of Operational Losses*, in *Mathematical Scientist*, 30(2), 87-97, 2005

63. **(NR)** Rachev, S., Stoyanov, S., Biglova, S., Fabozzi, F., *An Empirical examination of daily stock return distributions for U.S. stocks*, in: Daniel Baier, Reinhold Decker, and Lars Schmidt-Thieme (eds.), *Data Analysis and Decision Support, Springer Series in Studies in Classification, Data Analysis, and Knowledge Organization*: (Berlin: Springer-Verlag) 269-281, 2005

2004

64. Biglova A., Ortobelli S., Rachev S., Stoyanov, S., *Different Approaches to Risk Estimation in Portfolio Theory*, In *Journal of Portfolio Management*, 31, 103-112, 2004

65. Trueck, S., Laub, M., Rachev, S., *The term structure of Credit Spreads and Credit Default Swaps – an empirical investigation, Investment Management & Financial Innovations*, 3/2004

66. Biglova, A., Rachev, S., Jacis, T., Fabozzi, F., *Profitability of momentum strategies: application of novel risk/return ratio stock selection criteria, Investment Management and Financial Innovations,* **4,** 48-62, 2004

67. **(NR)** Hausen, F. , Rachev, S., Trueck, S., *Basel II: Letzte nderungen der Risikogewichtskurve im IRB-Ansatz*, *Kreditwesen*, **23**/2004

68. **(NR)** Lamantia, F., Ortobelli, S., Rachev, S., *Time-Scale transformations: effects on VaR models,*in *Lecture Notes in Computer Science*, **3039**, Springer, 779-786, 2004

69. **(NR)** Biglova, A., Rachev, S., Profitability of Momentum Strategies, in Proceedings of the 6th International Workshop on Computer Science and Information Technologies CSIT.2004, Budapest, Hungary, 2004, 216-220

70. **(NR)** Ortobelli S., Rachev S., Huber, I., Biglova A., *Optimal portfolio selection and Risk management: A comparison between the stable paretian Approach and the Gaussian one,* in *Handbook of Computational and Numerical Methods in Finance,* (Rachev S. edt.) Birkhauser, Boston 197-252 (2004)

71. **(NR)** Khindanova I, Atakhanova Z., Rachev S., GARCH-*Type Processes in Modeling Energy Prices* in: *"Handbook; Computational and Numerical Methods in Finance",* Birkhäuser, Boston, 69-112, 2004

72. **(NR)** Martin, B., Rachev S. and Schartz E., *Optimal Portfolio Selection and Risk Management: A comparison between the stable Paretian Approach and the Gaussian One*, in: *"Handbook; Computational and Numerical Methods in Finance"*, Birkhäuser, Boston, 197-252, 2004

73. **(NR)** Rachev, S., Ortobelli S., and Schwartz, E., *the Problem of Optimal Asset Allocation with Stable Distributed Returns, Stochastic Processes and Functional Analysis*, ed. A. C. Krinik and R. J. Swift, Lecture Notes in Pure and Applied Mathematics, Marcel Dekker, Basel, 295-347, 2004

74. **(NR)** Biglova A., Ortobelli S., Rachev S., Stoyanov S., *Optimal portfolio selection and Risk management: A comparison between the stable Paretian approach and the Gaussian one*, in *Handbook of Computational and Numerical Methods in Finance*, 197-252, 2004

75. **(NR)** Chernobai A., Rachev S., *Stable Modelling of Operational Risk*, As Chapter 7 in M. G. Cruz (ed.) "*Operational Risk Modelling and Analysis. Theory and Practice*", Risk Books, London, 139-169, 2004

76. **(NR)** Deidersen J., Niebling P., Rachev S., Trueck S., *Loss Given Default und Recovery Rates - eine Einfhrung*, in Frank Romeike (ed*): Modernes Risikomanagment*, Wiley**, 9,** 2004

77. **(NR)** Rachev, S., Trueck S., Weron R., Risk Management in Power Markets - Advanced Spot Price Models and Value-at-Risk Approaches in German: (Risikomanagement in Energiemrkten: Fortgeschrittene Spotpreismodelle und VaR-Anstze, in *RiskNews* **5**/2004, Wiley

2003

78. Tokat Y., Rachev, S. and E. Schwartz, The *Stable non-Gaussian Asset Allocation: A Comparison with the Classical Gaussian Approach)*, Journal of Economic Dynamics and Control, **27**, 937-969, 2003

79. Paulauskas V. and Rachev S. *Maximum likelihood estimators in regression models with infinite variance innovations*, Statistical Papers, **44,** 47-65,2003

80. **(NR)** Ortobelli S., Huber I, Rachev S. and Schwartz, E., Portfolio *Choice Theory with non-Gaussian Distributed Returns, Handbook of Heavy Tailed Distributions in Finance*, Series Editor, W. Ziemba, 205-441, 2003

81. **(NR)** Martin, D., Rachev, S. T., Siboulet F., Wilmott *Phi-alpha optimal portfolios and Extreme Risk Management* Magazine of Finance, November 2003, 70-83

82. **(NR)** Martin B., Rachev S. and E. Schwartz, *Stable Non-Gaussian Models for Credit Risk Management, Handbook of Heavy Tailed Distributions in Finance,* North Holland Handbooks of Finance (Series Editor W. T. Ziemba),405-441, 2003

83. **(NR)** Mittnik S., Rachev, S. and E. Schwartz, *Value-at-Risk and Asset Allocation with Stable Return Distributions,* Allgemeines Statistisches Archiv**, 86,** 53-67, 2003

84. **(NR)** Tokat Y, Rachev S. and Schwartz E., Asset *Liability Management; A Review and Some New Results in the Presence of Heavy Tails*, in *Handbook of Heavy Tailed Distributions in Finance,* North Holland Handbooks of Finance (Series Editor W. T. Ziemba), 509-546, 2003

85. **(NR)** Racheva –Iotova B., Rachev S. and S. Stoyanov, *Stable Non-Gaussian Credit Risk Model; The Cognity Approach,* in "*Credit Risk (Measurement, Evaluations and Management)"* G. Bol, G. Nakhaheizadeh, S. Rachev, T. Rieder, K. H. Vollmer (edt), Physica-Verlag Series: Contributions to Economics, Springer Verlag, Heidelberg, NY, 179-198, 2003

86. **(NR)** Rachev, S., I. Khindanova, and E. Schwartz, *Stable Modeling of Market and Credit Value at Risk* in: *"Handbook of Heavy Tailed Distributions in Finance"*, North Holland Handbooks of Finance (Series Editor W. T. Ziemba), 249-328, 2003

87. **(NR)** Ortobelli, S., Huber I., M . Hoechstoetter, and S. Rachev, A Comparison among Gaussian and non-Gaussian portfolio choice models" in (R. Neck (Editor) "*Modeling and Control of Economic System 2001"* ElsevierScience,225-230, 2003

88. **(NR)** Benzin A. , Rachev S. and Trueck , *S. Approaches to Credit Risk in the New Basel Accord ,* in *"Credit Risk (Measurement, Evaluations and Management)"* G. Bol , G. Nakhaeizadeh, S. Rachev, T. Rieder, K. H. Vollmer (edt), Physica-Verlag Series: Contributions to Economics, Springer Verlag, Heidelberg, NY, 1-34, 2003

89. **(NR)** Trueck S., Deidersen J. and Rachev S., Default Recovery Rates II – Impact Factors and Estimation of Average Recovery Rates, *Risk News,* **1**/2003, Wiley, 2003

2002

90. Mittnik S., Paolella M. S., Rachev S. T., *Stationarity of stable power-GARCH process*, Journal of Econometrics, 106, 2002, 97-107

91. Kelbert M., Rachev, S. T., Suhov Y., *The Maximum of a Tree-Indexed Random Process, with Applications*, Amer. Math. Soc. Transl. (2), Vol.207, 2002, 115-131

92. Rachev, S. T., Donchev D., Steigerwald D., *Optimal Policies for Investment with Time-Varying Return Distributions*, Journal of Computational Analysis and Applications, 4, 2002, 269-312

93. **(NR)** Dognanoglu T., Mittnik S., Rachev, S. T., *Portfolio selection in the presence of heavy-tailed asset returns*, Contributions to Modern Econometrics: From Data Analysis to Economic Policy, Kluwer Academic Publishers, 2002, 51-64

94. **(NR)** Trueck S., Rachev, S. T., Deidersen J., *Default Recovery Rates I*, Risk News, Volume 11/12-02, 2002, 7-19

2001

95. Rachev, S. T., Samorodnitsky G., *Long strange segments in a long-range-dependent moving average*, Stochastic Processes and Their Applications, 93, 2001, 119-148.

96. Rachev, S. T., Khindanova I., Schwarz, E., *Stable Modelling of Value at Risk*, Mathematical and Computer Modelling, 34, 2001, 1223-1259

97. Marinelli C., Rachev, S. T., Roll, R., *Subordinated Exchange Rate Models: Evidence for Heavy Tailed Distributions and Long-Range Dependence*, Mathematical and Computer Modelling, 34, 2001, 955-1001.

98. Rachev, S. T., Mittnik S., Paulauskas V., *Statistical Inference in Regression with Heavy-tailed Integrated Variables,* Mathematical and Computer Modelling, 34, 2001, 1145-1158

99. Mittnik, S., Rachev, S. T., Samorodnitsky, G., *The Distribution of Test Statistics for Outlier Detection in Heavy-Tailed Samples*

100. Mansfield, P., Rachev, S. T., Samorodnisky G., *Long strange segments of a stochastic process,* Annals of Applied Probability, 11, 2001, 878-921

101. Ortobelli S., Rachev, S. T., *Safety-First Analysis and Stable Paretian Approach to Portfolio Choice Theory*, Mathematical and Computer Modelling, 34, 2001, 1037-1072.

102. **(NR)** Mittnik, S., Rachev, S. T., *The GARCH-Stable Option Pricing Model*, Mathematical and Computer Modelling, 34, 2001, 1199-1212, Mathematical and Computer Modelling, 34, 2001, 1171-1183

103. **(NR)** Link, T., Trueck, S., Rachev, S. T., *New Tendencies in Rating SMEs with Respect to Basel II*, Informatica, Volume 12, Number 4, 2001, 593 – 610

104. **(NR)** Martin, B., Rachev. S. T., *A Stable Co integrated VAR Model for Credit Returns With Time-Varying Volatility*, Proceedings of the IFAC Symposium on Modelling and Control of Economic Systems (SME), 2001, 146-149

105. **(NR)** Atakhanova Z., Khindanova, I., Rachev, S. T., *Stable Modelling of Energy Risk*, Proceedings of the IFAC Symposium on Modelling and Control of Economic Systems (SME), 2001, 123-126

106. **(NR)** Ortobelli, S., Huber, I., Hoechstoetter, M., Rachev. S. T., *A comparison among Gaussian and non-Gaussian portfolio choice models*, Proceedings of the IFAC Symposium on Modelling and Control of Economic Systems (SME), 2001, 171-174

107. **(NR)** Marinelli, C., Rachev, S. T., *Stable Models in Finance with Applications to Market Risk Management*, Proceedings of the IFAC Symposium on Modelling and Control of Economic Systems (SME), 2001, 143-144

108. **(NR)** Khindanova, I., Rachev, S. T., Athanasopoulos B. D., *Regulation and Risk Management in the Greek Financial Markets*, Proceedings of the IFAC Symposium on Modelling and Control of Economic Systems (SME), 2001, 183-188

109. **(NR)** Klebanov L., Kozubowski T., Rachev, S. T., Volkovich V., *Characterization of Distributions Symmetric with Respect to a Group of Transformations and Testing of Corresponding Statistical Hypothesis*, Statistical & Probability Letters, 53, 2001, 241-247

2000

110. Klebanov, L., Mittnik, S., Rachev. S. T., Volkovich, V., *A New Representation for the Characteristic Function of Strictly Geo-Stable Vectors*, Journal of Applied Probability, 37, 2000, 1137-1142.

111. Klebanov, L., Rachev, S. T., Safarian M., *Local Pre-limit theorems and their applications to finance*, Applied Mathematics Letters, 13, 2000, 73-78

112. Han, S., Rachev, S. T., *Portofolio management with stable distributions,* Mathematical Methods of Operations Research, 51, 2000, 341-352.

113. Khindanova, I., Rachev, S. T., *Value-at-Risk: Recent Advances,* Handbook of Analytic-Computational Methods in Applied Mathematics, 2000, 801-858

114. Rachev, S. T., Tokat Y., *Asset and liability management: recent advances*, Handbook of Analytic-Computational Methods in Applied Mathematics, 2000, 859-908.

115. Mittnik, S., Paolella, C., Rachev. S. T., *Diagnosing and treating the fat tails in financial returns data*, Journal of Empirical Finance, 7, 2000, 389-416

116. Khindanova, I., Rachev, S. T., *Value-at-Risk: Recent Advances*, Journal Risk Analysis, 2, 2000, 45-76.

117. Haynatzka V. R., Gani J., Rachev, S. T., *A Steady-State Model for the Spread of HIV among Drug Users*, Mathematical and Computer Modelling, 32, (1/2), 2000, 81-195.

118. Haynatzka, V. R., Gani, J., Rachev, S. T., *The Spread of AIDS among Interactive Transmission Groups,* Mathematical and Computer Modelling, 32, (1/2), 2000, 169-180.

119. **(NR)** Marinelli, C., Rachev. S. T., *Computational Issues in Stable Financial Modelling,* Applied Mathematics Reviews, Vol. 1, World Scientific Publishing, 2000, 285-327.

120. **(NR)** Schwartz, E., Götzenberger G., and Rachev S. T., *Performance Measurements: The Stable Paretian Approach* Applied Mathematics Reviews, Vol. 1, World Scientific Publishing, 2000, 329-406.

1999

121. Rachev, S. T., Dall'Aglio M., *Metrization of epi-convergence: an application to the strong consistency of M-estimators*, Journal of Computational Analysis and Applications, 1, 1999, 63-86.

122. Rachev, S. T., Olkin I., *Mass transportation problems with capacity constraings,* Journal of Applied Probability 36, 1999, 433-445.

123. Rachev, S. T., Mittnik, S., Samorodnitski G., *Testing for Structural Breaks in Time Series Regressions with Heavy-tailed Disturbances*, Datamining and Computational Finance, Physica-Verlag 1999, 115-142.

124. Rachev, S. T., Hurst, S., Platen, E., *Option pricing for a logstable asset price model,* Distributional Modelling in Finance, Mathematical & Comp. Modelling, 29, 1999, 105-119.

125. Rachev, S. T., Weron A., Weron, K., *CED model for asset returns and fractal market hypoethesis,* Distributional Modelling in Finance, Mathematical & Comp. Modelling, 29, 1999, 23-36.

126. Rachev, S. T., Dostoglou S. A., Mittnik, S., *Stable distributions and the term of structure of interest rates*, Distributional Modelling in Finance, Mathematical & Comp. Modelling, 29, 1999, 57-60.

127. Rachev, ,S. T., Kozubowski, T., *Univariate geometric stable laws,* Journal of Computational Analysis and Applications, 1, 1999, 177-217.

128. Rachev, ,S. T., Kozubowski, T., *Multivariate geometric stable laws*, Journal of Computational Analysis and Applications, 4, 1999, 349-385.

129. Rachev, S. T., Gamrowski B., *A testable version of the Pareto-stable CAPM*, Distributional Modelling in Finance, Mathematical & Comp. Modelling, 29, 1999, 61- 81.

130. Rachev, S. T., Mittnik, S., *Option pricing for stable and infinitely divisible asset returns*, Distributional Modelling in Finance, Mathematical & Comp. Modelling, 29, 1999, 93-104.

131. Mittnik, S., Rachev, S. T., Rueschendorf L., *Test of association between multivariate stable vectors*, Distributional Modelling in Finance, Mathematical & Comp. Modelling, 1999, 29, 181-195.

132. Mittnik, S., Rachev, S. T., Doganoglu T., Chenyao D., *Maximum Likelihood Estimation of Stable Paretian Models*, Mathematical and Computer Modelling, 29, 1999, 275-293.

133. Klebanov, L. B., Rachev, S. T., Gzekely G. J., *Pre-limit Theorems and Their Applications,* Acta Applicandae Mathematicae, 58, 1999, 159-174.

134. **(NR)** Marinelli, C., Rachev, S. T., Roll, R., Göppl H., *Subordinated Stock Price Models: Heavy Tails and Long-Range Dependence in the High-frequency Deutsche Bank Price Record*, Datamining and Computational Finance, Physica-Verlag 1999, 69-94

135. **(NR)** Rachev, S. T., Mittnik, S., Kim, J. R., *Stable Paretian Models in econometrics: Part I,* Mathematical Scientist, 24, 1999, 24-55.

136. **(NR)** Rachev, S. T., Mittnik, S., Kim, J. R., *Stable Paretian Models in econometrics: Part II,* Mathematical Scientist, 24, 1999, 113–127.

1998

137. Rachev, S. T., Mittnik, S., Kim, J. R., *Chi-square-type distributions for heavy-tailed variates,* Economic Theory, 14, 1998, 339-354.

138. Rachev, S. T., Mittnik, S., Paolella M.S., *A tail estimator for the index of the stable Paretian distribution*, Communications in Statistics-Theory and Methods, 27, 1998, 1239-1262.

139. Rachev, S. T., Paulauskas, V., *Co integrated processes with infinite variance innovations*, Annals of Applied Probability, 8, 1998, 775-792.

140. Rachev, S. T., Mittnik, S., Paolella, M.S., *Stable Paretian modelling in finance: some empirical and theoretical aspects*, A Practical Guide to Heavy Tails: Statistical Techniques and Applications, edt. R. Adler eta al., Birhauser, Boston, 1998, 79-110.

141. Rachev, S. T., Mittnik, S., Kim, J. R., *Time series with unit roots and infinite-variance disturbances,* Appl. Math. Letters, 11, 1998, 69-74.

142. Rachev, S. T., Mittnik, S., Paolella, M.S., *Unconditional and conditional distributional models for the Nikkei Index,* Asia-Pacific Financial Markets 5, 1998, 99-128.

1997

143. Rachev, S. T., Hurst, S. H., Platen, E., *Subordinated market index models: A comparison*, Financial Engineering and the Japanese Markets, 4, 1997, 97-124.

144. Rachev, S. T., Maejima M., *Rates-of-convergence in the multivariate max-stable limit theorem*, Statistics and Probability Letters, 32, 1997, 115-123.

145. Rachev, S. T., Klebanov, L., *Computer tomography and quantum mechanics*, Adv. Appl. Prob, 29, 1997, 595-606.

146. Rachev, S. T., Yakovlov A. Yu., Hanin L. G., Tsodikov A. D., *A stochastic model of carcinogenesis and tumour size and detection*, Advances in Applied Probability, 29, 1997, 607-628.

147. Rachev, S. T., Weron, A., Weron, K., *Conditionally exponential dependence model for asset returns,* Appl Math. Letters, 10, 1997, 5-9.

148. Rachev, S. T., Weron, A., Weron, K., *Conditionally exponential dependence model for asset returns*, Appl. Math. Lett. 1997, 10, 5 – 9

149. Rachev, S. T., Kim, J.-R., Mittnik, S., *Econometric modelling in the presence of heavy-tailed innovations: a survey of some recent advances*, Stochastic Models, 13, 1997,841 – 866

150. **(NR)** Rachev, S. T., Haynatzka, V., Haynatzki G., *Probability metrics and limit theorems in AIDS epidemiology,* Real and Stochastic Analysis-Recent Advances, edt. M. M. Rao, CRC Press, 1997, 159-223.

151. **(NR)** Rachev, S. T., Klebanov, L., *The method of moments in tomography and in quantum mechanics,* Distributions with Given Marginals and Moment Problems, U. Benes and J. Stephan (eds) Kluwer, 1997, 35-52.

152. **(NR)** Rachev, S. T., Balinski M., *Rounding proportions: Method of Rounding,* Math Scientist, 22, 1997, 1-26

153. **(NR)** Rachev. S. T., *Book Review: Stochastic Models of Tumor Latency and Their Biostatistical Applications.* Bulletin of Mathematical Biology, 59, 1997, 404-406.

154. **(NR)** Rachev, S. T., Mittnik, S., Chenyao, D., *Distribution of exchange rates: a geometric summation-stable model*, Proceedings of the Seminar on Data Analysis, Sozopol, Bulgaria, (Sept 12-17, 1996), 1997

1996

155. Rachev, S. T., Mittnik, S., *Tail estimation of the stable index α*, Appl Math Letters, 9, 1996, 53-56.

156. Rachev, S. T., Maejima, M., *Rates of convergence in the operator-stable limit theorem*, Journal of Theoretical Probability, 9, 1996, 37-85.

157. Rachev, S. T., Klebanov, L., Melamed J., Mittnik, S., *Integral and asymptotic representations of geo-stable densities*, Appl Math Letters, 9, 1996, 37-40.

158. Rachev, S. T., Yakovlev A., Hanin L., Tsodikov, A., *A distribution of tumor size at detection and its limiting form*, Proc. Natl. Acad. Sci. USA, 93, 1996, 6671-6675

159. Rachev, S. T., Kim, J. R., Mittnik, S., *Detecting asymmetries in observed time series and disturbances*, Studies in Nonlinear Dynamics and Econometrics, 1, 1996, 131-138.

160. Rachev, S. T., Myasnikova E., Yakovlev, A., *Queuing models of potentially lethal damage repair in irradiated cells,* Mathematical Biosciences 135, 1996, 85-109

161. Rachev, S. T., Gamrowski, B., *Testing the validity of value-at-risk measures*, Applied Probability, C. Heyde et al, edt, Springer-Verlag, 1996, 307-320.

162. Rachev, S. T., Klebanov, L., *On a Special Case of the Basic Problem in Difraction Tomography*, Communications in Statistics: Stochastic Models, v. 12, No 2, 1996.

163. **(NR)** Rachev, S. T., Cuesta J. A., Matran C., Rueschendorf, L., *Mass transportation problems in probability theory*, Mathematical Scientist, 21, 1996, 34-72.

164. **(NR)** Rachev, S. T., Chobanov G., Mateev P., *Mittnik, S., Modelling the distribution of highly volatile exchange-rate time series*, Time Series, P. Robinson and M. Rosenblatt edt, Springer Verlag, 1996, 130-144.

165. **(NR)** Rachev, S. T., Gelbrich M., *Discretization for stochastic differential equations, Waserstein L^p metrics and econometrical models*, Distributions with Fixed Marginals and Related Topics, IMS Lecture Notes-Monograph Series, 28, 1996, 98-119.

166. **(NR)** Rachev, S. T., Klebanov, L., *Proximity of probability measures with common marginals in a finite number of directions*, Distributions with Fixed Marginals and Related Topics, IMS Lecture Notes-Monograph Series, 28, 1996, 162-174.

167. **(NR)** Rachev, S. T., Klebanov, L., *Sums of random number of random variables and their approximatations with accompanying infinitely divisible laws*, Serdica, Math Journal 22, 1996., 471 – 496

1995

168. Rachev, S. T., Cheng, B., *Multivariate stable futures prices*, Mathematical Finance, 5, 1995, 133-153

169. Rachev, S. T., Cheng, B., Heathcote C. R., *Testing multivariate symmetry*, Journal of Multivariate Analysis, 54, 1995, 91-112.

170. Rachev, S. T., Samorodnitski, G., *Limit laws for a stochastic process and random recursion arising in probabilistic modelling*, Advances in Applied Probability, 27, 1995, 185-202.

171. Rachev, S. T., Hanin, L., *An extension of the Kantorovich-Rubinstein mass-transshipment problem*, Numer. Funkt. Anal. and Optimiz. 16, 1995, 701-735.

172. Rachev, S. T., Mittnik, S., *Stable GARCH Models for financial time series*, Appl. Math. Lett. 815, 1995, 33-37.

173. Rachev, S. T., Karandikar R., *A generalized binomial model and option formulae for subordinated stock-price processes*, Probability and Mathematical Statistics, 15, 1995, 427-447.

174. Rachev, S. T., Rueschendorf, L., *Probability metrics and recursive algorithms*, Journal of Applied Probability 27, 1995, 770-799.

175. **(NR)** Rachev, S. T., Chufang Wu, Yakovlev, A. Yu., *A bivariate limiting distribution of tumor latency time*, Mathematical Biosciences, 127, 1995, 127-147.

176. **(NR)** Rachev, S. T., Klebanov, L., *The methods of moments in computer tomography*, Math. Scientist, 20, 1995, 1-14.

177. **(NR)** Rachev, S. T., *Gamrowski, Financial models using stable laws*, Probability Theory and its Application in Applied and Industrial Mathematics, Yu V Prohorov (editor) 2, 1995, 556-604.

1994

178. Rachev, S. T., Rueschendorf, L., *On the Cox, Ross and Rubinstein model for option pricing,* Theory of Probability. Appl., 39, 1994, 150-190

179. Rachev, S. T., Samorodnitski, G., *Geometric stable distributions in Banach spaces*, Journal of Theoretical Probability, 7(2), 1994, 351-373.

180. Rachev, S. T., Rueschendorf, L., *Propagation of chaos and contraction of stochastic mappings*, Siberian Advances in Mathematics, 4, 1994, 114-150.

181. Rachev, S. T., Rueschendorf, L., *Solution of some transportation problems with relaxed or additional constraints*, SIAM Journal on Control and Optimization, vol. 32, No. 3, 1994.

182. Rachev, S. T., Rueschendorf, L., Feldmann P., *Limit theorems for recursive algorithms,* Journal of Computational and Applied Mathematics, 56, 1994, 169-182.

183. Rachev, S. T., Hanin, L. G., *Mass transhipment problems and ideal metrics*, Journal of Computational and Applied Mathematics, 56, 1994, 183-196.

184. Rachev, S. T., Kozubowski, T. J., *The theory of geometric stable distributions and its use in modelling financial data*, European Journal of Operations research: Financial Modelling, 74, 1994, 310-324.

185. **(NR)** Rachev, S. T., Rueschendorf, L., *On the rate of convergence in the CLT with respect to the Kantorovich metric*, Probability in Banach Spaces 9, Birkhäuser, Boston-Basel-Berlin, (edt. J. Hoffman-Jorgensen, J. Kuelbs, M.B. Markus), 1994, 193-207.

186. **(NR)** Rachev, S. T., dGamrowski B., *Stable models in testable asset returns*, Approximation, Probability and Related Fields," Plenum Press, 1994, 223-236.

187. **(NR)** Rachev, S. T., Klebanov, L. B., Melamed, J. A., *On the joint estimation of stable law parameter*, "Approximation, Probability ad Related Fields" Plenum Press, N.Y., 1994, 315-320.

188. **(NR)** Rachev, S. T., Anastassiou G., Yu, X. M., *Multivariate probabilistic wavelet approximation*, "Approximation, Probability and Related Fields," Plenum Press, N.Y., 1994, 657.

1993

189. Rachev, S. T., Lee, M. L. T., Samorodnitsky, G., *Dependence of stable random variables*, Stochastic Inequalities, IMS Lecture Notes-Monograph Series, 22, 1993, 219-234.

190. Rachev, S. T.; Hanin, L; Yakovlev, A. Yu., *On the optimal control of cancer radiotherapy for nonhomogeneous cell populations*, Advances of Applied Probability, 25, 1993, 1-23.

191. Rachev, S. T., Sengupta A., *Laplace-Weibull mixtures for modelling price changes*, Management Science, 1993, 1029-1038.

192. Rachev, S. T., Klebanov, L., Yakovlev, A. Yu, *A stochastic model of radiation carcinogenesis: latent time distributions and their properties*, Mathematical Biosciences, 113, 1993, 51-75.

193. Rachev, S. T., Balinski, M., *Rounding proportions: rules of rounding*, Numerical Functional Analysis and Optimization, 14, 1993, 475-501.

194. Rachev, S. T., Epstein-Feldmann, R., *U-statistics of random-size samples and limit theorems for systems of Markovian particles with non-Poisson initial distributions*, Ann. of Probability, 21, 1993, 1927-1945.

195. Rachev, S. T., Mittnik, S., *Modelling asset returns with alternative stable laws*, Econometric Reviews, 12, 1993, 261-330.

196. Rachev, S. T., Mittnik, S., *Reply to comments on "Modelling asset returns with alternative stable laws"*, Econometric Reviews, 12, 1993, 347-389.

197. Rachev, S. T., Xin H., *Test on association of random variables in the domain of attraction of multivariate stable law*, Probability and Mathematical Statistics, vol. 14, Fasc. 1, 1993, 125-141.

198. Rachev, S. T., Olkin, I., *Maximum submatrix traces for positive definite matrices*, SIAM Journal of Matrix Analysis Applications, vol. 14, 1993, 390-397

199. **(NR)** Rachev, S. T., *Book Review of "Stationary Stochastic Models", by A. Brandt, P. Franken and B. Lisek, John Wiley & Sons, 1990, p. 344*. Metrika-International Journal for Theoretical and Applied Statistics, 40, 1993, 130-132.

200. **(NR)** Rachev, S. T., Balinski, M., Athanasopoulos, B., *Some developments on the theory of rounding proportions*, Bulletin of the ISI, 49th Session, Firenze I, 1993, 71-72.

201. **(NR)** Rachev, S. T., Rueschendorf, L., *On constrained transportation problems*, Proceedings of the 32nd Conference on Decision and Control, IEEE Control Systems Society, 3, 1993, 2896-2900.

202. **(NR)** Rachev, S. T., *Stable models for asset returns and option pricing*, QUICK, ORI Report, 8(11), 1993, 24-26 (in Japanese).

203. Rachev, S. T., *Rate of convergence of maxima of random arrays with applications to stock returns*, Statistics & Decisions, 11, 1993, 279-288.

204. Rachev, S. T., Yakovlev, A. Yu., Klebanov, L., *On the parametric estimation of survival functions*, Statistics & Decisions, Suppl. Issue, 3, 1993, 83-102.

205. Rachev, S. T., Samorodnitski, G., *Option pricing formulae for speculative prices modelled by subordinated stochastic processes*, PLISKA, Studia Mathematika Bulgarica, Bulgarian Academy of Sciences, 19, 1993, 175-190.

206. **(NR)** Rachev, S. T.; Yakovlev, A. Yu.; *Random minima scheme and carcinogenic risk estimation*, Mathematical Scientist, 18, 1993, 20-36

1992

207. Rachev. S. T., Rueschendorf, L., Schief A.; *Uniformities for the convergence in law and in probability*, Journal of Theoretical Probability 5, 1992, 33-44.

208. Rachev, S. T., Rueschendorf, L., *A new ideal metric with applications to multivariate stable limit theorems*, Probability Theory and Related Fields, 94, 1992, 163-187.

209. Rachev, S. T., Rueschendorf, L., *Rate of convergence for sums and maxima and doubly ideal metrics*, Theory of Probability. Appl., 37, 2, 1992, 276-289.

210. Rachev, S. T.; Schief, S., *On L_p-minimal metric*, Probability and Mathematical Statistics, vol. 13, fasc.2, 1992, 311-320.

211. Rachev S. T, Sengupta A, *Geometric stable distributions and Laplace-Weibull mixtures*, Statistics and Decisions, v. 10, 1992, 251-271.

212. **(NR)** Rachev S. T, Anastassiou G; *Moment problems and their applications to characterization of stochastic processes, queuing theory and rounding problems*, Proceedings of the 6th SEA meeting "Approximation Theory", (Lecture Notes in Pure and Applied Mathematics), v. 138, 1992, 1-77. Marcel Dekker, New York.

213. **(NR)** Rachev S. T, Taskar M.; *Kantorovich's functional in space of measures*, Applied Stochastic Analysis, Proceedings of the US-French Workshop, Lecture Notes in Control and Information Science, v. 177, 1992, 248-261.

214. **(NR)** Rachev S. T, Anastassiou G.; *Moment problems and their applications to the stability of queuing models*, Computers and Mathematics with Applications, v. 24, No. 8/9, 1992, 229-246.

215. **(NR)** Rachev S. T, Dimitrov B; Khalil Z; *A probabilistic approach to optimal quality usage*, Computers and Mathematics with Applications, 24, No.8/9, 1992, 219-227.

216. **(NR)** Rachev S. T, *Theory of probability metrics and recursive algorithms*. Distancia '92, Proceedings of Congress International sure Analyse en Distance, (ed. S. Joly and G. Le Calve), Universite de Haute Bretagne, Rennes, 1992, 339-403.

1991

217. Rachev S. T, Yukich J. E., *Rates of convergence of alpha-stable random motions*, Journal of Theoretical Prob.4, No. 2, 1991, 333-352.

218. Rachev S. T, Rueschendorf, L., *Approximate independence of distributions on spheres and their stability properties*, Annals of Probability Vol. 19, 1991, 1311-1337

219. Rachev S. T, Resnick S, *Max-geometric infinite divisibility and stability*, Stochastic Models 2, 1991, 191-218

220. Rachev, S. T, Omey E, *Rates of convergence in multivariate extreme value theory*, Journal of Multivariate Analysis 37, 1991, 36-50

221. Rachev S. T, Baxter L, *The stability of a characterization of the bivariate Marshall-Olkin distribution*, Journal of Mathematical Analysis and Applications V 160, 1991, 563-571

222. Rachev S. T, Rueschendorf, L, *Recent results in the theory of probability metrics*, Statistics and Decisions 9, 1991, 327-373

223. Rachev S. T, *Mass transhipment problems and ideal metrics*, Numer. Funct. Anal. and Optimiz., 12, (5 & 6), 1991, 563 - 573.

224. **(NR)** Rachev S. T, Mittnik S; *Alternative multivariate stable distributions and their applications to financial modelling*, Stable Processes and Related Topics. Preceedings of MSI Workshop, Ed. S. Cambanis et al., Birkhauser, Boston. 1991.

225. **(NR)** Rachev S. T, *Optimal mass transhipment problems and ideal metrics.* Proceedings of XI Congreso de Metodologias en Ingenieria de Sistemas, 1991, 115-120, Azocar, Santiago, Chile.

1990

226. Rachev S. T; Todorovic P., *On the rate of convergence of some functionals of a stochastic process*, J. Appl. Prob. 28, 1990, 805-814.

227. Rachev S. T, Rueschendorf L, *A counterexample to a.s. constructions*, Statistics and Probability Letters 9, 1990, 307-309.

228. Rachev S. T, Rueschendorf L, *Approximation of sums by compound Poisson distributions with respect to stop-loss distances,* Adv. Appl. Prob. 22, 1990, 350-374.

229. Rachev S. T, Rueschendorf L, *A transformation property of minimal metrics*, Theory Prob. Appl. 35, 1990, 131-137.

230. Rachev S. T, Shortt R. M., *Duality theorems for Kantoroivich-Rubenstein and Wasserstein functionals*, Dissertationes Mathematicae, Vol. 299, 1990.

231. Rachev S. T, Samorodnitsky G., Lee, M. T., *Association of stable random variables*, Annals of Probability, 18, 4, 1990, 1759-1764.

232. **(**NR) Rachev S. T; Baxter L.; A note on the stability of the estimation of the exponential distribution, Statistics and Probability Letters Vol. 10, 1990, 37-41.

233. **(NR)** Rachev S. T, Fomenko A. T.; *Volume functions of historical texts and the amplitude correlation principle*, Computers and Humanities, 24, 3, 1990, 187-206.

1989

234. Rachev S. T.; Yukich V., *Rates for CLT via new ideal metrics*. Annals of Probability, 17, 1989, 775-788.

235. Rachev S. T, De. Haan L., *Estimates of the rate of convergence for max-stable processes*, Annals of Probability, 17, 1989, 651-677

236. Rachev, S. T., Shortt, R. M., *Classification problem for probability metrics*, Contemporary Mathematics, 94, 1989, 221-262

237. Rachev S. T., Mittnik S, *Stable distributions for asset returns*, Appl. Math. Lett. 2/3, 1989, 301-304

238. Rachev S. T., *The problem of stability in queuing theory (Invited paper).* Queuing Systems Theory and Applications, Vol 4, 1989, 287-318.

239. Rachev S. T.; Yukich J., *Smoothing metrics for measures on groups*. Annales de l'Institut Henri Poincare, 25, 1989, 429-441.

240. Rachev S. T; Kuznezova-Sholpo I, *Explicit solutions of moment problems*, Probability and Math. Statistics, Vol. 10, 1989, 297-312.

241. Rachev S. T.; A. Yu. Yakovlev; N.O. Kadyrova; *Maximum likelihood estimation of the bimodal failure rate for censored and tied observations*. Statistics, Vol.20, 1989. 135-140

242. Rachev S. T.; Kadyrova N. O.; Yakovlev A.; *Isotonic maximum likelihood estimation of the bimodal failure rate - a computer-based study*. Statistics, Vol. 20, 1989, 271-278

243. Rachev S. T., (with E. M. Myasnikova A. Yu. Yakovlev et al.); *Analysis of the survival rate after the combined radiation effect. Synergism and antagonism of the effects of two factors*. Radiology, Vol. 4, 1989, 478-483 (in Russian).

244. Rachev S. T., Rueschendorf L.; *A characterization of random variables with minimum L_2 –distance*, J. Mult. Analysis, Vol. 132, 1989, 48-54.

245. **(NR)** Rachev, S. T., Hanin L. G., Goot R. E., Yakovlev. A. Yu; *Precise upper bounds for the functionals describing tumour treatment efficiency*, Lecture Notes in Math., Vol. 1412, Springer-Verlag, 1989, 50-62.

246. **(NR)** Rachev S. T., Klebanov L. B., Melamed J. A., *On the products of a random number of random variables in connection with a problem from mathematical economics*, Lecture Notes in Math., Vol. 1412, Springer-Verlag, 1989, 103-109.

247. **(NR)** Rachev S. T., Levin V. L.; *New duality theorems for marginal problems with some applications in stochastics*, Lecture Notes in Math., Vol. 1412, Springer-Verlag, 1989, 137-170.

248. **(NR)** Rachev S. T.; Anastassiou G.; *Approximation of a random queue by means of deterministic queuing models*, Approximation Theory VI, C.K. Chui, L.L. Schumaker J.D. Ward, Eds., Academic Press, New York, 1989, 1-4.

249. **(NR)** Rachev S. T.; Good R. E., Yakovlew A. Yu.; Kadyrova, N. O.; Zharinov G. M.; *Some statistical test associated with the concept of delta-stochastic ordering of two random variables*, Serdica, Bulgaricae mathematicae publicationes, 16, 1990, 240.245.

250. **(NR)** Rachev S. T.; Baxter L.; *A note on the stability of the estimation of the exponential distribution*, Statistics and Probability Letters Vol. 10, 1990, 37-41.

1988

251. Rachev S. T., Omey E., *Ann. Probability, Vol. 15, 1987, 702-707*. Theor. Prob. Appl., , Vol. 33, 1988, 560-565.

252. Rachev S. T. Yakovlew A. Yu., *Theoretical bounds for the tumor treatment efficiency*, Syst. Anal. Model Simul. 5, Vol. 1, 1988, 37-42.

253. Rachev S. T.; Yakovlew A. Yu., *Bounds for crude survival probabilities within competing risks framework and statistical application*, Statistics and Probability Letters, 1988, 389-394

254. Rachev S. T., Yakovlew A. Yu.; *Bounds for the probabilistic characteristics of latent failure times within competing risks framework*, Serdica, Vol. 14, 1988, 325-332.

255. Rachev S. T., Yakovlew A. Yu.; Kadyrova, N. O., Nyasmikova E. M.; *On the statistical inference from survival experiments with two types of failure,* Biom J. 30/7, 1988, 835-842.

256. **(NR)** Rachev S. T., Yakovlew A. Yu.; *Some problems of the competing risk theory*, Proceedings of the Fifth International Summer School on Probability Theory and Mathematical Statistics, Varna, 1985, Publishing House of Bulgarian Academy of Sciences, Sofia, 1988, 171-187.

257. **(NR)** Rachev S. T., *The stability of stochastic models (invited paper)*. Applied Probability Newsletter, Vol. 12, No.2, 1988, 3-4.

258. **(NR)** Rachev S. T. Yakovlev A. Yu.; *Theoretical bounds for radiation therapy efficiency*, Medical Radiology, No. 5, Moscow, 1988, 17-21 (in Russian).

259. **(NR)** Rachev. S. T., Klebanov, L. B., Yakovlev, A. Yu. ; *An estimate of the rate of convergence to the limit distribution for the minima scheme for random number of identically distributed random variables,* Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1988, 120-124 (in Russian).

1987

260. Rachev S. T., Beirlant J.; *The problems in stability in insurance mathematics*, Insurance: Mathematics & Economics, Vol. 6, 1987, 179-188.

261. Rachev S. T., Maejima M.; An *ideal metric and the rate of convergence to a self-similar process*, Ann. Probability, Vol. 15, 1987, 702-707.

262. **(NR)** Rachev S. T., *Probability metrics and their application to problems of stability of stochastic models*, Proceedings of the 16th Spring Conference of the Union of Bulgarian Mathematicians, Sunny Beach, April 1987, 53-60.

263. **(NR)** Rachev S. T.; Obretanov A.; *Estimates of the deviation between the exponential and new classes of bivariate distributions*, Lect. Notes in Math., (Springer-Verlag), Vol. 1233, 1987, 93-102.

1986

264. Rachev S. T.; Chobanov G. S.; *Metrization of the vague convergence*, Pliska, No. 2, 1986, 1154-1158 (in Russian).

265. Rachev S. T.; Kalashnikov V. V.; *Characterization of inverse problems in queuing and their stability*, J. Appl. Prob., Vol. 23, 1986, 459-473.

266. Rachev S. T., *Lévy-Prokhorov distance in a space of semi-continuous set function,* in *Stability Problems for Stochastic Models, Proceedings,* Moscow, VNIISI, 1987, 76-88 (in Russian), English transl., *J. Soviet Math.* **32**, No. 1, 1986, 64-74

267. Rachev S. T.; Obretanov, A.; *Stability of some characterization properties of the exponential distribution*, *Stability of the service process in a system of type M7M/1,* Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1983, 79-87 (in Russian); English transl., J. Soviet Math. Vol. **32**, No. 6, 1986, 643-651

268. Rachev S. T.; Obretanov, A.; Dimitrov, B.; *Stability of the service process in a system of type M7M/1,* Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1983, 71-79 (in Russian); English transl., J. Soviet Math. Vol. **32**, No. 6, 1986, 634-643

269. Rachve S. T., Ignatov Zw; *Ideal quadraic metrics*, Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1984, 119-128 (in Russian); English transl., J. Soviet Math., Vol. 35, No. 2, 1986, 2376-2394.

270. Rachev S. T.; Kalashnikov, V.; *Characterization problems in queuing and their stability*, Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1984, 49-86 (in Russian); English transl., J. Soviet Math., Vol. 35, No.2, 1986, 2336-2360.

1985

271. Rachev S. T., Kalashnikov, V. V.; *Characterization problems in queuing and their stability*, Adv. Appl. Prob, 17, 1985, 320-348.

272. Rachev S. T., *Uniformity in weak and vague convergences*. Uniformity in weak and vague convergences.

273. Rachev S. T., *Probability Metrics and Their Applications to the Problems of Stability for Stochastic Models*, Author-summary on the Doctor of Science Dissertation, Moscow, Steklov Mathematical Institute, 1985.

274. Rachev S. T.; Dimitrov, B. N., Yakovlev, Y. Yu.; *Maximum likelihood estimation of the mortality rate function*, Biom. J., Vol. 27, 1985, 317-326.

275. Rachev S. T.; Kalashnikov, V. V., *Stability in the mean of the characterization of queuing models*, stability problems for stochastic Models, Proceedings, Moscow, VNIISI, 1985, 67-75 (in Russian); English transl., J. Soviet Math., Vol. 40, No. 4, 1988, 502-509.

276. **(NR)** Rachev S. T., *Extreme functionals in the space of probability measures*, Lecture Notes in Math., (Springer-Verlag), Vol. 1155, 1985, 320-348.

277. **(NR)** Rachev, S. T.; Klebenov L. B.; *Stability of lack of memory property of multivariate exponential distributions in finite number of points*, Lect. Notes Math., (Springer-Verlag), Vol. 1155, 1985, 131-143.

278. **(NR)** Rachev S. T.; Zolotarev V.M.; *Rate of convergence in limit theorems for the Max-scheme*, Lect. Notes Math., (Springer-Verlag), Vol. 1155, 1985, 415-442.

279. **(NR)** S. T. Rachev, Obretenov A., *Bounds of deviation from exponentiality of distribution function classes.* Proceedings of the 14th Spring Conference of the Union of Bulgarian Mathematicians, Sunny Beach, April 1985, 495-501

280. Rachev S. T., *On a class of functionals in a space of probability measure.* Teor. Verojatnot. i Primen., Vol. **29**, No. 1, 1984, 41-48 (in Russian); English transl., Theor. Probab. Appl., Vol. 29, No. 1, 1985, 41-49.

281. Rachev S. T., *The Monge-Kantorovich mass transference problem and its stochastic applications* (invited paper). Teor. Verojatnot. i Primen., Vol.29, No.4, 1984, 625-653 (in Russian); English transl., Theor. Probab. Appl., Vol. 29, No. 4, 1985, 647-676.

1984

282. S. T. Rachev, *On a problem of Dudley.* Dokl. Akad. Nauk., 1984, Vol. **275**, No. I, 28-31 (in Russian), Engl. transl., Soviet Math. Dokl. 1984, Vol 29, No. 2, 162-164

283. Rachev S. T., *On the ζ-structure of the average and uniform distances.* Dokl. Akad. Nauk, Vol. 278, No. 2, 1984, 282-285 (in Russian); English transl., Soviet Math. Dokl., Vol. 30, 1984, No.2, 369-372.

284. Rachev S. T., *Hausdorff metric construction in the probability measures space*, Pliska, Vol. 7, 1984, 152-162.

1983

285. Rachev S. T.; Ignatov Zw; *Minimality of ideal probabilistic metrics*, Stability Problems for Stochastic Models, Proceedings, Moscow, VNIISI, 1983, 36-48 (in Russian) ; English transl., J. Soviet Math. Vol. **32**, No. 6, 1986, 595-608

286. **(NR)** Rachev S. T., *Minimal metrics in the real valued random variables space.* Lect. Notes Math., (Springer-Verlag), Vol. **982**, 1983, 172-180.

287. **(NR)** Rachev S. T.; Chobanov, G.; *Existences and uniqueness of the limit Gibbs' distribution*, Lectures on Stochastic Problems of the Modern Physics, Sofia, Univ. Sofia, 1983, 42-60

288. **(NR)** Rachev S. T.; Obretanov, A.; Characterization *of the bivariate exponential distribution and Marshall-Olkin distribution and stability*, Lect. Notes Math., (Springer-Verlag), Vo. **982**, 1983, 136-150

289. **(NR)** Rachev S. T.; Vandev, *Compactness in the probability measures space*, Proceedings of the Third European Young Statisticians Meeting, Ed. by Galyare M. et. al., Leuven: Katholieke Univ., 1983, 138-152

1982

290. Rachev S. T., *Minimal metrics*, Pub. Inst. Statistics. Univ. Paris, Vol. XXVII, I, 1982, 22-47

291. Rachev S. T., *Minimal metrics in the random variables space,* Probability and Statistical Inference, Proceedings of the 2nd. Pannonian Symp., Ed. by Grossmann M. et. al. Dodrecht; D. Reidel, Publ. Company, 1982, 318-327

292. Rachev S. T.; Vandev D.; Ignatov, C.; *Metrics that are invariant relative to monotone transformations,* Stability Problems for Stochastic Models Proceedings Moscow, VNIISI, 1982, 25-36 (in Russian); English transl., J. Soviet Math, Vol. **35**, No. 3, 1986, 2466-2478

1981

293. Rachev S. T., *On minimal metrics in a space of real valued random variables.* Dokl. Akad. Nauk USSR, 1981, Vol **257**, No. 5, 2067-2070 (in Russian; English Transl., Soviet Math. Dokl., Vol 23, No. 2, 1981, 425-428

294. Rachev S. T., *Minimal metrics in a space of random Vecotrs with fxed one-dimensional marginal distributions.* In *Stability Problems for Stochastic Models, Proceedings Moscow, VNIISI*, 1981, 112 – 128 (in Russian); English transl., J. Soviet Math., Vol 34, No.2, 1986, 1543 – 1555

295. Rachev S. T.; Ignatov, Zv; *Stochastic Inequalities for p-funktions*, Dokl. Bulgarian Acad. Sci, Vol. **35**, No. 5, 1982, 613-616

296. **(NR)** Rachev S. T.; Obretanov, A.; Dimitrov, B.; *Stability of an exponential law characterization*, Stability Problems for Stochastic Models, Moscow, VNIISI 1982, 39-46

297. Rachev S. T., *Hausdorff metric structures of the space of probability measures.* in *Zap. Nauchn. Sem. Leningrad Atdel Mat. Inst. Stelkov (LOMI)* **87**, 1979, 87-103 (in Russian), English translation, J. Soviet Math. **17**, 1981, 2218-2232

1978

298. Rachev S. T., *Maximum likelihood estimation of U-Type failure rate function.* in *Annuaire Univ. Sofia, Fac. Math. Mec.* **72**, 1978, 127 – 140

299. **(NR)** Rachev, S. T., *Theorems of moments and their applications for NBU distributions, Mathematics and Mathematical Education.* Proc. of Fourth Spring Conference of Bulgarian Mathematical Society, Pernik, (April 2 – 4, 1975), 1978, 303-310 (in Russian)

300. Rachev S. T., *Reliability of aging system.* in *Ann Univ. Sofia, Fac. Math. Mec.* **68** (1973/74), 1977, 339-347 (in Russian)