Andreas MAKRIDES

PERSONAL DATA

DATE OF BIRTH:	June 1, 1984
CITIZENSHIP:	Cypriot
ADDRESS:	Kerkiras 31 A, Anthoupolis, Nicosia, CY-2302, CYPRUS
MOBILE:	+357 99 848155
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EDUCATION

DECEMBER 2016	Ph.D. in STATISTICS, **University of Cyprus**, Cyprus Thesis: "Statistical Inference for Multi-State Reliability Systems - Mathematical Statistics - Applied Probability" Area of Specialization: Stochastic Processes and Modeling - Reliability Theory Advisor: Prof. Alexandros KARAGRIGORIOU
JUNE 2010	M.Sc. in STATISTICS AND MODELING **Aristotle University of Thessaloniki**, Greece Thesis: "Ruin Probabilities for the Cramer-Lundberg Model" MARK: 9.9/10 Advisor: Prof. George TSAKLIDIS GPA: 9.5/10
JUNE 2008	B.Sc. in MATHEMATICS **Aristotle University of Thessaloniki**, Greece GPA: 8.84/10

RESEARCH INTERESTS

- Data Science
- Quantitative methods for Business and Economics
- Stochastic Modeling
- Stochastic Processes
- Applied Probability
- Mathematical Statistics
- Semi-Markov Processes
- Reliability Theory
- Multi-State Systems
- Entropy and Divergence
- Goodness of Fit Tests
- Control Charts - Statistical Quality Control
- Data Analysis
- Big Data Analysis

- Statistical Computation and Simulation

Professional Experience

Sept. 2021-Today	*Visitor Lecturer* University of Cyprus, Department of Mathematics and Statistics
July 2020-Today	*Post Doc* University of the Aegean, Samos, Greece, Department of Statistics and Actuarial-Financial Mathematics Advisor: Prof. Alex Karagrigoriou
Sept. 2019-Aug. 2021 Sept. 2017-Dec. 2018	*Special Scientist (Equivalent to Lecturer level)* University of Cyprus, Department of Mathematics and Statistics
March 2019-Today Sept. 2017-Feb. 2018	*Associate Lecturer* University of Central Lancashire, Cyprus, Department of Mathematics
Sept. 2019-Dec. 2020	*Special Scientist (Equivalent to Lecturer level)* Cyprus University of Technology, Department of Commerce, Finance and Shipping
March 2018-March 2019	*Post Doc* University of Rouen, France, Laboratoire de Mathématiques Raphaël Salem Advisor: Prof. Vlad Barbu
Sept. 2011-Dec. 2016	*Teaching Assistant* University of Cyprus, Department of Mathematics and Statistics

Academic Visits

February 2014	University of Rouen, France Laboratoire de Mathématiques Raphaël Salem

Editorial Work - Books

1. Makrides, A., Karagrigoriou, A., Skiadas, C. (2020). *Data Analysis and Applications 3: Computational, Classification, Financial, Statistical and Stochastic Methods.* **iSTE Wiley**, 262pp, ISBN : 9781786305343.

2. Makrides, A., Karagrigoriou, A., Skiadas, C. (2020). *Data Analysis and Applications 4: Financial, Data Analysis and Methods.* **iSTE Wiley**, 310pp, ISBN : 9781786306241.

Articles in Scientific Journals & Collective Volumes/Books

1. Kroustalli, Ch., Karagrigoriou, A., Makrides, A. (2022). Stochastic Processes & Reliability Analysis: Theoretical Issues & Applications (2nd round of revision *Mathematics in Engineering, Science and Aerospace*).

2. Makrides, A. (2022). Statistical Inference for Multi State Systems under the Generalized Modified Weibull Class (2nd round of revision *Journal of Reliability and Statistical Studies*).

3. Kalligeris, E., N. and Makrides, A. (2022). Statistical Process Monitoring Techniques for COVID-19, *Data Analysis and Related Applications: Theory and Practice Vol. 2, ed. Zafeiris, K. et al., iSTE Wiley* (to appear).

4. Barbu, V. S., Karagrigoriou, A. and Makrides, A. (2021). Reliability and Inference for Multi State Systems: The Generalized Kumaraswamy case *Mathematics*, **Vol. 9 (16)**.

5. Barbu, V. S., Karagrigoriou, A. and Makrides, A. (2021). Semi-Markov Processes for Earthquake Forecast *In Statistical Methods and Modeling of Seismogenesis*, Limnios, N., Papadimitriou, E. and Tsaklidis, G., eds. iSTE WILEY, 299-308.

6. Barbu, V. S., Karagrigoriou, A. and Makrides, A. (2020). Statistical inference for a general class of distributions with time varying parameters, *J. Appl. Stat.*, **Vol. 47 (13-15)**, 2354-2373.

7. Barbu, V. S., Karagrigoriou, A. and Makrides, A. (2020). Modelling and inference for special types of semi-Markov processes, *In Stochastic Models in Reliability Engineering*, Cui, L, Frenkel, I., Lisnianski, A. eds., CRC Press, 113-124.

8. Barbu, V. S., Karagrigoriou, A. and Makrides, A. (2019). Estimation and Reliability for a special type of Semi-Markov Process, *J. Math. Stat.*, **Vol. 15**, 259-272.

9. Karagrigoriou, A., Makrides, A. and Vonta, I. (2019). On a control chart for the Gini index with simulations, *Communications in Statistics - Simulation and Computation*, **Vol. 48 (4)**, 1121-1137, DOI: 10.1080/03610918.2017.1406510.

10. Barbu, V., Karagrigoriou, A., Makrides, A. (2017). Semi-Markov modelling for multi-state systems, *Meth. & Comput. Appl. Prob.*, **Vol. 19**, 1011-1028.

11. Karagrigoriou, A., Makrides, A., Tsapanos, Th., Vougiouka, G. (2016). Earthquake forecasting based on multi-state system methodology, *Meth. & Comput. Appl. Prob.*, **Vol. 18 (2)**, 547-561.

12. Dimou, F., Karagrigoriou, A. and Makrides, A. (2015). Control charts for the coefficient of variation, In *Statistical, Stochastic and Data Analysis Methods and Applications*, Karagrigoriou, A., Oliveira, T. and Skiadas, Ch. eds., ISAST: International Society for the Advancement of Science and Technology, ISBN: 978-618-5180-07-2, 83-95.

13. Makrides, A. and Karagrigoriou, A. (2014). Statistical inference for multi-state systems, *Biometrie und Medizinische Informatik, Greifswalder Seminarbeichte*, Aachen: Shaker Verlag, **Vol. 23**, 241-258.

14. Makrides, A., Karagrigoriou, A., and Vonta, F. (2013). Entropy type goodness of fit tests for heavy-tailed distributions, In *Statistical Models and Methods for Reliability and Survival Analysis*, Couallier, V., Gerville-Reache, L., Huber, C., Limnios N. and Mesbah, M. eds, Hermes-Wiley, 33-44.

Articles in Proceedings (evaluation - whole article)

15. Makrides, A., Karagrigoriou, A. and Barbu, V. S. (2019). Semi-Markov Processes in Reliability: Theory and Applications, Proc. of the 21th European Young Statisticians Meetings, Belgrade, Serbia, July 29-Aug 2, 2019, 56-61.

16. Barbu, V. S., Makrides, A. and Karagrigoriou, A. (2016). On semi-Markov modeling and inference for multi-state systems, *IEEE Computer Society (CPS), Proceedings* SMRLO2016, 56-60.

17. Barbu, V. S., Makrides, A. and Karagrigoriou, A. (2014). Semi-Markov modelling for multi-state systems, *IEEE Computer Society (CPS), Proceedings* ARES2014, ISBN-14: 978-1-4799-4223-7/14, 397-402, *doi* 10.1109/ARES.2014.60.

18. Makrides, A. and Karagrigoriou, A. (2014). Statistical inference for multi-state systems, *Proceedings* 26th Greek Statistical Institute, Greece, 291-301.

19. Makrides, A. and Karagrigoriou, A. (2013). Statistical inference for multi-state systems: The Weibull case, *IEEE Computer Society (CPS), Proceedings* ARES2013, ISBN-13: 978-0-7695-5008-4, 747-752, *doi* 10.1109/ARES.2013.99.

20. Makrides A., Votsi E., Tsaklidis G., Papadimitriou E. (2010). Application of the Cramer-Lundberg model in seismic hazard assessment in the North Aegean, *Proceedings* 23rd Greek Statistical Institute, Greece, 175-183.

ARTICLES IN PROGRESS

21. Semi-Markov Switching Modeling for Anomaly Detection of Time-Series Incidence Data, *with Kalligeris, M. N. and Karagrigoriou, A.*

CITATIONS, TOTAL NUMBER (ALL SOURCES) = 44

- Semi-Markov modelling for multi-state systems (27)
- Earthquake forecasting based on multi-state system methodology (7)
- Statistical inference for a general class of distributions with time varying parameters (3)
- On a control chart for the Gini index with simulations (1)
- Control charts for the coefficient of variation (2)
- Estimation and reliability for a special type of semi-Markov processes (1)
- On semi-markov modelling and inference for multi-state systems (1)
- Entropy Type Goodness of Fit Tests for Heavy Tailed Distributions (1)
- Statistical inference for multi-state systems: The weibull case (1)

Database	# of papers	# of citations	h-index
Scopus	13	18	2
Web of Science	7	15	2
Google Scholar	All	44	3

CONFERENCE ORGANIZATION / STUDENT SUPERVISION

1. Conference Organization

   - Organizing Committee Member of International Workshop "Statistical Modeling with Applications (StatMod2021)", Romania, December 2021.

   - Organizing Committee Member of "22nd European Young Statisticians Meeting (BernoulliSociety)", Athens, Greece, September 2021. https://www.eysm2021.panteion.gr

   - Organizing Committee Member of "Young (Greek) Statisticians Contribution to Probability and Statistics with Applications", within the framework of the 33rd Greek Statistical Institute, (Virtual) September 2021. https://esi2021-interworkshop.weebly.com

   - Organizing Committee Member of International Workshop "Statistical Modeling with Applications (StatMod2020)", Romania, November 2020.

2. Advising

- **Emmanouel-Nektarios Kalligeris**, Coaching/Guidance PhD Thesis, title: *"Statistical Process Monitoring Techniques for COVID-19"*, since January 2021 (Supervision: Prof. Karagrigoriou Alex), University of the Aegean, Greece.

- **Chrysoula Kroustalli**, co-advisor Master Thesis, title: *"Stochastic Processes with Reliability Elements"*, since June 2021, thesis defended February 2022, University of the Aegean, Greece.

INVITED TALKS

JANUARY 2022	*A semi-Markov model under the generalized Kumaraswamy case* **Probability-Statistics Seminars, Laboratory of Mathematics in Le Mans University,** Le Mans, France
DECEMBER 2021	*Multi-State system analysis based on semi-Markov processes* **5th International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2021)**, Dehradun, Uttarakhand, India
DECEMBER 2021	*On some aspects of Reliability Inference with semi-Markov processes* **Statistical Modeling with Applications (StatMod2021),** Bucharest, Romania
NOVEMBER 2021	*A new framework of semi-Markov processes for parameter estimation and Reliability Analysis* **AUEB Statistics Seminar Series, Athens University of Economics and Business,** Athens, Greece
SEPTEMBER 2021	*Reliability Analysis using Semi-Markov Processes under General Classes of Distributions* **33th Conference of Greek Statistical Institute**, Larissa, Greece
JUNE 2021	*Statistical Inference for Multi State Systems: The Kumaraswamy case* **19th Conference of the Applied Stochastic Models and Data Analysis International Society (ASMDA2021)**, Athens, Greece
MAY 2021	*Modelling of multi-state systems via a semi-Markov framework under general classes of distributions* **Seminars of Postgraduate Program, Laboratory of Statistics and Data Analysis, University of the Aegean**, Samos, Greece
MAY 2021	*Semi-Markov Modelling and Inference for MS Systems under a New Family of Distributions* **2nd LabSTADA Statistics and Probability e-Day, Laboratory of Statistics and Data Analysis, University of the Aegean**, Samos, Greece
DECEMBER 2020	*Reliability of Multi State Systems* **4th International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2020)**, Dehradun, Uttarakhand, India
MAY 2020	*Time Varying Models: Inference, Simulations and Applications* **1st LabSTADA Statistics and Probability e-Day, Laboratory of Statistics and Data Analysis, University of the Aegean**, Samos, Greece
JUNE 2018	*Statistical inference for multi-state systems based on semi-Markov processes* **5th Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA 2018)**, Chania, Greece

CONTRIBUTED PRESENTATIONS

JUNE 2022 — *Stochastic Processes and Reliability Analysis: Theoretical Issues and Applications*
7th Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA 2022), Athens, Greece

NOVEMBER 2020 — *Statistical inference in models with parameter dependence*
Statistical Modeling with Applications (StatMod2020), Bucharest, Romania

JUNE 2020 — *Time Varying Models: Inference, Simulations and Applications*
6th Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA2020), Barcelona, Spain

JULY 2019 — *Semi-Markov Processes in Reliability: Theory and Applications*
21st European Young Statisticians Meeting, Belgrade, Serbia

JUNE 2019 — *Reliability Analysis using Semi-Markov Processes*
2nd Conference of Cypriot Statistical Institute, Nicosia, Cyprus

MAY 2019 — *On a special type of semi-Markov process*
22nd Conference of Romanian Society of Statistics and Probability (SPSR 2019), Bucharest, Romania

OCTOBER 2018 — *A general class of distributions with time varying parameters: applications in reliability and survival analysis*
Statistical Topics and Stochastic Models for Dependent Data Conference (STODEP 2018), Rouen, France

JUNE 2018 — *Semi-Markov Modeling for Multi-State Systems*
First Congress of Greek Mathematicians FCGM-2018 Conference (FCGM 2018), Athens, Greece

MAY 2018 — *Estimation and Reliability for a special type of semi-Markov processes*
50e Journées de Statistique de la SFdS (JDS2018), Paris-Saclay, France

APRIL 2018 — *A new control chart for not necessarily symmetric distributions*
21st Conference of Romanian Society of Statistics and Probability (SPSR 2018), Bucharest, Romania

JULY 2017 — *On a control chart for the Gini index with simulations*
European Meeting of Statisticians (EMS), Helsinki, Finland

APRIL 2017 — *Statistical inference for a general class of distributions with time varying parameters*
20th Conference of Romanian Society of Statistics and Probability (SPSR 2017), Brasov, Romania

APRIL 2017 — *Semi-Markov processes for multi-state systems: modeling, estimation and reliability/survival analysis*
20th Conference of Romanian Society of Statistics and Probability (SPSR 2017), Brasov, Romania

Feb. 2016	*On semi-Markov modelling and inference for multi-state systems* **2nd Intern. Symposium on Stochastic Models in Reliability Engineering, Life Sciences and Operational Management (SMRLO2016)**, Beer Sheva, Israel
July 2015	*Technical multi-state systems with applications in Seismology* **Applied Stochastic Models and Data Analysis (ASMDA)**, Piraeus, Greece
July 2015	*Semi-Markov modelling on multi-state systems* **Applied Stochastic Models and Data Analysis (ASMDA)**, Piraeus, Greece
April 2015	*Technical multi-state systems with applications in Seismology* **28th Conference of Greek Statistical Institute**, Athens, Greece
Sept. 2014	*Semi-Markov modelling for multi-state systems* **International Conference on Availability, Reliability and Security , (ARES2014)**, Fribourg, Switzerland
Sept. 2013	*Statistical inference for multi-state systems: The Weibull case* **8th International Conference on Availability, Reliability and Security**, **(ARES2013)**, Regensburg, Germany
May 2013	*Statistical inference for multi-state systems* **5th International Conference on Risk Analysis ICRA5**,Tomar, Portugal
April 2013	*Statistical inference for multi-state systems* **27th Conference of Greek Statistical Institute**, Thessaloniki, Greece
Sept. 2011	*Seismic hazard assessment for the N. Aegean area based on the Cramer-Lundberg model* **MSMPRF2011**, Chalkidiki, Greece
April 2010	*Seismic hazard assessment for the N. Aegean area based on the Cramer-Lundberg model within finite time* **23th Conference of Greek Statistical Institute**, Veroia, Greece

Conference Participation without Presentation

July 2021	**35th International Workshop on Statistical Modelling (IWSM 2021)**, Bilbao, Spain
April 2017	**30th Conference of Greek Statistical Institute** Big Data Analysis: Applications in Tourism, Health, Environment, Pyla, Cyprus
May 2011	**4th International Conference on Risk Analysis ICRA4** Biomedicine, Environmetrics, Economics, Finance and Reliability, Limassol, Cyprus

Teaching Experience

Sept. 2021-Today	**University of Cyprus** *Visitor Lecturer* • Statistical Analysis I

SEPT. 2019-AUG. 2021 SEPT. 2017-DEC. 2017	UNIVERSITY OF CYPRUS *Special Scientist (Equivalent to Lecturer level)* • Statistical Analysis I • Statistical Analysis II • Probability and Statistics • Statistical Methods • Probability and Statistics for biologists • Introductory Mathematics
MARCH 2019-TODAY SEPT. 2017-FEB. 2018	UNIVERSITY OF CENTRAL LANCASHIRE, Cyprus *Associate Lecturer* • Time Series I (fourth year Mathematics) • Time Series II (fourth year Mathematics) • Stochastic Processes (fourth year Mathematics) • Survey Methodology (third year Mathematics) • Nonparametric Statistics (third year Mathematics) • Probability Theory for Engineers (second year Electrical & Electronic Engineering) • Research Methods for Sport Scientists I (third year School of Sport and Well-Being) • Research Methods for Sport Scientists II (third year School of Sport and Well-Being)
SEPT. 2019-DEC. 2020	CYPRUS UNIVERSITY OF TECHNOLOGY *Special Scientist (Equivalent to Lecturer level)* • Statistics in Management (MSc degree)
SEPT. 2011-DEC. 2016	UNIVERSITY OF CYPRUS *Teaching Assistant* • Linear Models I (fourth year Mathematics and Statistics) • Linear Models II (fourth year Mathematics and Statistics) • Statistical Analysis I (first and second year Business and Public Administration, Accounting and Finance and Economics) • Statistical Analysis II (first and second year Business and Public Administration, Accounting and Finance and Economics) • Statistical Methods (first and second year Business and Public Administration, Accounting and Finance and Economics) • Linear Algebra (second year Faculty of Engineering) • Introductory Mathematics I and II (first and second year Business and Public Administration, Accounting and Finance and Economics) • Mathematics for Engineers III (second year Faculty of Engineering) • Calculus I (first year Computer Science) • Statistics for Biologists (first year Biological Sciences)

Awards and Distinctions

1. Representative of Cyprus to the **21st EYSM, July 29-Aug 2, 2019, Belgrade, Serbia** (selected by the Regional Committee of the Bernoulli Society).

2. Representative of France to the **21st EYSM, July 29-Aug 2, 2019, Belgrade, Serbia** (selected by the Regional Committee of the Bernoulli Society).

3. **IKYK (State Scholarships Foundation in Cyprus) Fellowship**, for the graduate studies (Master), 2008.

4. **IKY (State Scholarships Foundation in Greece) awards**, for academic excellence in undergraduate studies during the academic years 2005-2006, 2006-2007, 2007-2008.

5. **Annual Excellence in Archangelos High School, Nicosia, Cyprus** during the period 2000-2002.

6. **Parents' Association and Central Student Council award, Nicosia, Cyprus**, 2002.

Consulting and Academic Services

1. **Editing** of a Special Issue "Information and Divergence Measures", Entropy, https://www.mdpi.com/journal/entropy/special_issues/diverg_measure

2. **Doctoral Theses External Examiner** - PhD Thesis entitled *"Quantitative management of business and financial risk"* submitted by Ms Bice Di Basilio, University of Chieti-Pescara, Italy.

3. **Reviewer** for the scientific journals European Journal of Operational Research, Mathematics, Symmetry, Processes, Physica A, Journal of Applied Probability and Statistics, Journal of Reliability and Statistical Studies, Applied Mathematical Modelling, Applied Sciences and IEEE Transactions on Reliability.

4. **Project Coordinator**: Evaluation of undergraduate student grades, Academic Affairs and Students Welfare Services, University of Cyprus, 2013.

5. **Project Coordinator**: Evaluation of the quality of the administration services, Academic Affairs and Students Welfare Services, University of Cyprus, 2012.

Skills, Languages and Professional Memberships

GREEK:	Native Language
ENGLISH:	Fluent, **London Examinations General Certificate of Educations**
FRENCH:	Fluent, **London Examinations General Certificate of Educations**
SOFTWARES:	MATLAB, MATHEMATICA, MINITAB, SPSS, R, LATEX,
	OFFICE WORD, EXCEL, POWERPOINT, use of Internet
PROF. MEMBERSHIP:	Greek Statistical Institute (Association of Greek Statisticians)
	Romanian Society of Statistics and Probability