Agapios PLATIS
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# Professor of Applied OR and System Reliability Diplôme d'Ingénieur

## Ph.D in System Reliability

« mention très honorable avec félicitations du jury »

#### **Summary of the Research Activity**

My research interests are focused on the performance and dependability analysis of highly available and reliable systems such as information and communication systems, electrical power systems, transportation systems and a broad-spectrum of technological systems, as well as the analysis of the corresponding optimal maintenance strategies. These interests include the development of detailed probability models (Non-homogeneous Markov, semi-Markov, etc..) adapted to specific reliability engineering problems and the creation of new accurate probabilistic indicators allowing a more efficient and precise evaluation of the system dependability. My experience in the Research and Development Division of Electricité de France, during the preparation of my PhD, made me aware about the technical issues that arise when complex mathematical models are applied to real life systems, but the greatest fulfillment is when your methodology finally contributes to the design a new class of electrical substations.

I have published over 100 papers in international journals, book chapters and international conferences proceedings and since my nomination as a Director of the Reliability Engineering Lab, I have established collaborations with the Center for Reliability and Risk Management of the Shamoon College of Engineering (Israel) and the Computational Methodologies & Operations Research (CMOR) Laboratory of the University of Macedonia.

#### **Diplomas and Awards**

- **Chevalier de l'Ordre des Palmes Académiques,** (Nomination «Knight of the order of the Academic Palms » from the French Prime Minister Dominique de Villepin)
- **Ph. D in System Reliability with Honors and congratulations of the jury**, in the Dept. of Computer Science Engineering of the University of Technology of Compiègne (UTC).
- 1994 Post Graduate Degree (Diplôme d'Etudes Approfondies) in Systems' Control (Diagnosis, System Reliability), in the Dept. of Computer Science Engineering of the University of Technology of Compiègne (UTC).
- 1993 Engineering Diploma in Computer Science (Diplôme d'Ingénieur de l'Université de Technologie de Compiègne) with specialization in Software Engineering, in the Dept. of Computer Science Engineering of the University of Technology of Compiègne (UTC).

Academic and Professional Activity		
Dec. 2015 - present	Professor	University of the Aegean
•	Dept. of Financial and Management	•
Oct 2013 – present		<b>Management Hellenic Open University</b>
•	Coordinator from Oct 2016 of a the	
	unit dedicated to reliability and ma	intenance
	School of Science	
July 2010 - Dec. 2015	Associate Professor	University of the Aegean
•	Dept. of Financial and Management	Engineering
June 2009 - July 2010	<b>Assistant Professor (Tenure positio</b>	
•	Dept. of Financial and Management	
Sept. 2005 – June 2009	Assistant Professor	University of the Aegean
_	Dept. of Financial and Management	Engineering
Jan. 2003 – Sept. 2005	Lecturer	University of the Aegean
	Dept. of Information and Communica	tion Systems Engineering
Oct 2001 - Aug. 2010	<b>Tutor in Computer Science</b>	Hellenic Open University
	School of Science	
Oct. 2000 – Jan. 2003	Research and Teaching Assistant	University of the Aegean
	Dept. of Information and Communica	tion Systems Engineering
Oct. 2000 – Oct. 2004	Research and Teaching Assistant	University of the Aegean
	Dept. of Shipping Trading and Trans	portation
Feb. 1998 – Oct. 2000	Research and Teaching Assistant	University of the Aegean
	Dept. of Mathematics	
Feb. 1994 – Dec. 1997	Research Engineer – PhD student	EDF (Electricité de France)
	Research and Development Division (Direction Recherche et Développement)	
Mar.1993 – Sept. 1993	Engineer	IBM France
Sept. 1991 - Feb. 1992	Engineer F	RAMASOFT-CSI (Groupe FRAMATOME)

#### **Scholarships**

- Sept. 1993 June 1994 Bourse de DEA.
- Sept. 1994 Dec. 1997 CIFRE (Convention Industrielle de Formation par la Recherche en Entreprise). Scholarship from the French Government and EDF.

#### **Research Activity**

Oct. 2009 University of the Aegean Dept. of Financial and Management Engineering Reliability Engineering Lab.

Head of the new laboratory «Reliability Engineering», and Director in 2017.

Head of the local research team of the "ASPASIA" Project: "Analysis of Supply and Production Systems: an Integrated Approach" (THALES program), 2012-2016

Feb. 2007-2008 University of the Aegean Dept. of Financial and Management Engineering Research Group PHARE

(Performability, High Availability and Reliability Engineering Research Group)

Scientific Supervisor for the Post Doctoral Dissertation of Dr I. Lagoudis «Effective management of port container terminals using stochastic models »

Jan. 2006-2008 University of the Aegean Dept. of Financial and Management Engineering Research Group PHARE

(Performability, High Availability and Reliability Engineering Research Group)

Principal Investigator for the Transnational Research Project PLATON (France - Greece) «Enhancement of the FSA procedure for the improvement of the Maritime Safety and Environmental Protection»

Jan. 2002-2004 University of the Aegean Dept. of Inform. & Com. Systems Engineering Research Group InCoSys (Intelligent Cooperative Systems)

Principal Researcher for the Transnational Research Project PLATON (France – Greece - Morocco) «Extraction and Processing of user data for the optimal web site reconfiguration »

#### Supervision of Ph.D and Post Doc Dissertations

- Supervisor of the PostDoctoral Dissertation of **Dr. I. Lagoudis** «Effective management of port container terminals using stochastic models», Dept. of Financial and Management Engineering (2007 2008).
  - o In 2010, MIT Center for Transportation and Logistics, Now Assistant Professor
- Supervisor of the Doctoral Dissertation of **Mr. V. Koutras** «Optimization of Computer systems' Performance and Operational Cost through Software Rejuvenation», Dept. of Financial and Management Engineering (2005 2010).
  - o Currently Assistant Professor at FME Dept. and senior member of the REL lab.
- Co-Supervisor of the Doctoral Dissertation of **Mr. E. Mennis** «Probabilistic Modeling of Formal Safety Assessment», Dept. of Shipping Trading and Transportation (2006 2009).
  - Currently Teaching Assistant
- Member of the supervision committee of the Doctoral Dissertation of Mr. K. Karamatsoukis «Optimal Maintenance of a production system with idle periods», Dept. of Financial and Management Engineering (2006 2010).
  - o Currently Assistant Professor
- Member of the supervision committee of the Doctoral Dissertation of **Mr P. Tsopelas** «Reliability of Computer Networks», Dept. of Information and Communication Systems Engineering (1999-2005).
  - o Currently Director of IT dept. in ROTA S.A.

#### **Editorial Activity**

- ✓ Editor with Dieter Fiems and Marco Paolieri in Computer Performance Engineering, Lecture Notes in Computer Science, LNCS 9951, SPRINGER, 2016.
- ✓ Member of the Technical Program Committee **Third International Symposium on Stochastic Models in Reliability Engineering, Life Sciences and Operations Management SMRLO'19**.
- ✓ Member of the Technical Program Committee Fifth International Workshop on Software Aging and Rejuvenation WOSAR 2013
- ✓ Member of the Technical Program Committee Fourth International Workshop on Software Aging and Rejuvenation WOSAR 2012
- ✓ Member of the Technical Program Committee Third International Workshop on Software Aging and Rejuvenation WOSAR 2011
- ✓ Member of the Technical Program Committee Second International Workshop on Software Aging and Rejuvenation WOSAR 2010.
- ✓ Member of the Technical Program Committee European Safety and Reliability Conference ESREL 2011.
- ✓ Member of the Technical Program Committee European Safety and Reliability Conference ESREL 2010.
- ✓ Member of the Technical Program Committee European Safety and Reliability Conference ESREL 2007.
- ✓ Member of the Technical Program Committee European Safety and Reliability Conference ESREL 2005.
- ✓ Reviewer for the Journal Process Safety and Environmental Protection, Official journal of the European Federation of Chemical Engineering: Part B
- ✓ Reviewer for the Journal International Journal of Computer Mathematics
- ✓ Reviewer for the Journal Annals of Operations Research.
- ✓ Reviewer for the Journal **Methodology and Computing in Applied Probability**
- ✓ Reviewer for the Journal Reliability Engineering and System Safety.
- ✓ Reviewer for the Journal IEEE Transactions on Reliability.
- ✓ Reviewer for the Journal **Applied Mathematical Modelling.**
- ✓ Reviewer for the **Journal of Convergence Information Technology.**
- ✓ Reviewer for the Journal Communication in Statistics Theory and Methods. Special issue on Semi-Markov Processes and Their Applications.
- ✓ Reviewer for the Journal International Journal of Future Generation Computer Systems.
- ✓ Reviewer for the Journal European Journal of Operational Research.
- ✓ Reviewer for the Journal International Journal of Future Generation Computer Systems. Special issue on Parallel and Distributed Algorithms and Systems.
- ✓ Reviewer for the conference proceedings of the Annual Reliability and Maintainability Symposium (RAMS).

#### **Institutional Responsibilities**

Currently, my positions held at the Department of Financial and Management Engineering - University of the Aegean, are the following:

- Head of Department
- Director of the Reliability Engineering Lab,
- Coordinator of the Department Internal Evaluation Committee
- Member of the coordinating committee for the Postgraduate Program

Formerly, I was also Deputy-Head of Dept, Member of the Erasmus Committee, member of the IT committee, Member of the Library committee and deputy member of the University Senate.

Presently, I also hold the position of Coordinator (from 2016) of the Thematic Unit «Special Topics on Quality» for the MSc «Quality and Technology Management» at the Hellenic Open University, head of a team of 11 professors—tutors and more than 200 students

### **Relevant Publication List**

#### **International Journals**

- 1. A. Platis, N. Limnios, M. Le Du, Performability of Electric Power Systems Modeled by Non-Homogenous Markov Chains, *IEEE Transactions on Reliability* (Vol. 45, No 4, 1996, pp 605-610).
- 2. A. Platis, N. Limnios, M. Le Du, Dependability Analysis of Systems Modeled by Non-Homogenous Markov Chains, *Reliability Engineering and System Safety* (Vol. 61, 1998, pp 235-249).
- 3. A. Platis, N. Limnios, M. Le Du, Hitting Time in a Finite Non-Homogenous Markov Chain with Applications, *Applied Stochastic Models and Data Analysis* (Vol. 14, 1998, pp 241-253).
- 4. A. Platis, G. Gravvanis, Dependability evaluation using explicit approximate inverse preconditioning, *International Journal of Computational and Numerical Analysis and Applications* 1, 71-86 (2002).
- 5. A. Platis, An extension of the Performability measure and application in system reliability, *International Journal of Computational and Numerical Analysis and Applications* 1, 87-101 (2002).
- 6. G. Gravvanis, A. Platis, On the computation of asymptotic availability of cyclic non-homogeneous Markov chains systems by approximate inverses, *I. J. Computational and Numerical Analysis and Applications*, 3, 27-39 (2003).
- 7. A. Platis, G. Gravvanis, Modeling the dependability of a class partitioned system and on the use of explicit approximate arrow structure inverses, *I. J. Computational and Numerical Analysis and Applications*, 3, 41-54 (2003).
- 8. P. Tsopelas, A. Platis. Performability Indicators for the traffic analysis of Wide Area Networks, *Reliability Engineering and System Safety* (Vol. 82-1, 2003, pp 1-9)
- 9. A. Platis, G. Gravvanis, K. Giannoutakis, E Lipitakis, A two-phase cyclic non-homogeneous markov chain performability evaluation by explicit approximate inverses applied to a replicated database system, Special Issue of the *Journal of Mathematical Modelling and Algorithms* (Vol.2-3, 2003, pp 235-249).
- 10. I. Maglogiannis, E. Zafiropoulos, A. Platis, G. Gravvanis, Computing the success factors in consistent acquisition and recognition of objects in color digital images by explicit preconditioning, *Journal of Super Computing*, 30(2), pp. 179-198 (2004).
- 11. N. Nikitakos, E. Mennis, A. Platis, Hybridic Model for small cruise ships' safety risk management, *Tourism in Marine Environments*, 3(1), pp. 59-66 (2006).
- 12. I. Maglogiannis, E. Zafiropoulos, A. Platis, C. Lambrinoudakis, Risk Analysis of a Patient Monitoring System Using Bayesian Network, *Journal of Biomedical Informatics*, 39 pp. 637-647 (2006).
- 13. A. Platis, A Generalization of the Performability indicator, Special Issue on The Second Euro-Japanese Workshop on Stochastic Risk Modelling for Finance, Insurance, Production and Reliability, *Computers & Mathematics with Applications, An International Journal*, 51, pp.239-246 (2006).
- 14. N. Limnios, B. Ouhbi, A. Platis, G. Sapountzoglou, Non-parametric Estimation of Performance and Performability for Semi-Markov Processes, *International Journal of Performability Engineering*, vol.2, Number 1, January 2006.

- 15. E. Mennis, A. Platis, N. Nikitakos, Applying Performability models in maritime risk assessment, *International Journal of Material and Structural Reliability*, Vol. 6, No.1, pp. 97-107, March 2008.
- 16. E. Mennis, A. Platis, G. Lagoudis, N. Nikitakos, "Applying reliability models to improve port container terminal efficiency", *Maritime Economics and Logistics*, 10, pp.243-257, 2008,
- 17. E. Mennis, N. Nikitakos, A. Platis, J.-G. Fontaine, Enhancing safety in ship's critical systems, *International Journal of Reliability, Quality and Safety Engineering*, vol.16, pp.59-72, Feb. 2009.
- 18. V. Koutras, A. Platis, G. Gravvanis, On the optimization of free-resources using non-homogeneous Markov chains software rejuvenation model, *Reliability Engineering and System Safety*, vol. 92, Issue 12, Pages 1724-1732, December 2007.
- 19. V. Koutras, A. Platis, G. Gravvanis, Software rejuvenation for resource optimization based on explicit approximate inverse preconditioning, *Applied Mathematics and Computation*, vol. 189, Issue 1, Pages 163-177, 1 June 2007.
- 20. J.B. Violentis, A.N. Platis, G.A. Gravvanis and E.A. Lipitakis, Performance analysis of an electrical substation via a semi-Markov process computed by generalized approximate inverse preconditioning, *HERMIS: The International Journal of Computer Mathematics and its Applications*, vol.10, 2008.
- 21. I. Lagoudis, A. Platis, Using Birth-and-Death Theory for Container Terminal Strategic Investment Decisions, *International Journal on Decision Sciences, Risk and Management*, vol. 1, No 1-2, 2009, pp.81-103.
- 22. V. Koutras, A. Platis, G. Gravvanis, Optimal Server Resource Reservation Policies for Priority Classes of Users under Cyclic Non-Homogeneous Markov Modeling, *European Journal of Operational Research*, Volume 198, Issue 2, 16 October 2009, Pages 545-556.
- 23. E. Mennis, A. Platis, N. Nikitakos, "Applying stochastic models in maritime safety", *Journal of Environmental protection and ecology*, vol. 10, No. 4, 2009, pp. 975-985.
- 24. V. Koutras, A. Platis, G. Gravvanis, Availability and performance on a grid computing environment with software rejuvenation based on approximate inverse preconditioning, *HERMIS: The International Journal of Computer Mathematics and its Applications*, vol.11, 2009.
- 25. A. Platis, E. Drosakis, Coverage modeling and optimal maintenance frequency of an automated restoration mechanism, *IEEE Transactions on Reliability*, vol. 58, No.3, 2009, pp. 470-475.
- 26. V. Koutras, A. Platis, Semi-Markov Performance Modeling of a Redundant System with Partial, Full and Failed Rejuvenation, *International Journal of Critical Computer Based Systems*, Inderscience Publishers, Vol. 1, No 1-2-3, 2010, pp.59-85.
- 27. K. Kirytopoulos, D. Voulgaridou, A. Platis, V. Leopoulos, An effective Markov based approach for calculating the Limit Matrix in the analytic network process, *European Journal of Operational Research*, Volume 214, Issue 1, 1 October 2011, Pages 85-90.
- 28. V.P. Koutras, C.S. Salagaras, A.N. Platis. Two Component Software Rejuvenation Contribution on VoIP Dependability, *International Journal of Critical Computer Based Systems*, Inderscience Publishers, (2011), to appear
- V.P. Koutras, A. N. Platis, G. A. Gravvanis. Software Rejuvenation and Resource Reservation Policies for Optimizing Server Resource Availability using Cyclic Non-Homogeneous Markov Chains, *Applied Stochastic Models in Business and Industry* (2011), 29(1), Pages 61-78.
- 30. E. Mennis, A. N. Platis, Availability Assessment of Diesel Generator System of a Ship: A Case Study, *International Journal of Performability Engineering*, (2013); 9(5), Pages 561-567.
- 31. V.P. Koutras, S. Malefaki, A.N. Platis. 2014. Rejuvenation Effects on the Grid Environment Performance with Response Time Delays using Monte Carlo Simulation. *Simulation Modelling Practice and Theory* (1.159), 40, Pages 176-191
- 32. V. P. Koutras and A. N. Platis, (2016). User-perceived Availability of a Software Rejuvenation Model with Recovery Time Omission. *Quality and Reliability Engineering International*, Vol. 32, Pages 1521–1533.
- 33. A. Manatos, V. P. Koutras and A. N. Platis, (2016). Dependability and performance stochastic modelling of a two-unit repairable production system with preventive maintenance, *International Journal of Production Research*, Published online 27 June 2016.
- 34. V. Kostas, A.N. Platis and N.S. Sapidis, (2016). Performability Assessment of Standalone Photovoltaic Residential Systems, International Journal of Performability Engineering 12(5), Pages 485–500.
- 35. C. Salagaras, V. P. Koutras, N.S. Thomaidis, V. Vassiliadis, A.N. Platis, G. Dounias and C. Kyriazis, (2016). Resource Availability Modeling and Optimization in a Car Park Management Problem. *International*

- *Journal of Operations Research and Information Systems*, Special Issue: Operations Research and its Application in Engineering, to appear as IJORIS 8(2), 2017
- 36. V.P. Koutras, S. Malefaki, A.N. Platis (2017). Optimization of the dependability and performance measures of a generic model for multi-state deteriorating systems under maintenance, *Reliability Engineering and System Safety*, Vol. 166, pp.73-86, Oct. 2017.

#### **Book Contributions**

- 37. A. Platis, P. Tselios, G. Vouros, Attractability: An indicator for optimising the design of Web sites, *DATAMINING II*, N. F. F. Ebecken and C. A. Brebbia (eds), WIT Press, pp. 181-194, (2000).
- 38. P. Tselios, A. Platis, G. Vouros, Providing advise to Website Designers towards effective websites structure re-organization, *Lecture Notes in Computer Science* 1910, pp. 646-651, D. A. Zighed, J. Komorowski, and J. Żytkow (eds), Springer-Verlag (2000).
- M. Vafopoulos, V. Aggelis, A. Platis, HyperClustering: From digital divide to GRID e-workspace, in: A. Zanasi, C.A. Brebbia and N. Ebecken, eds., *Data Mining VI: Data Mining, Text Mining and their Business Applications*. WIT Transactions on Information & Communication Technologies, 34, ISSN 1743-3517 2005, pp. 311-321.
- 40. M. Vafopoulos, G. Gravvanis and A. Platis: The personal grid eworkspace, in: M.P. Bekakos, G.A. Gravvanis and H.R. Arabnia, eds., *Grid Technologies: Emerging from Distributed Architectures to Virtual Organizations*, WIT Press, 2005.
- 41. T. Markopoulos, A.N. Platis, Reliability analysis of a modified IEEE 6BUS RBTS multi-state system, *Springer Series in Reliability Engineering*, (9783319634227), pp. 301-319, (2018).
- 42. S. Malefaki, V.P. Koutras, A.N. Platis, Optimizing availability and performance of a two-unit redundant multi-state deteriorating system, *Springer Series in Reliability Engineering*, (9783319634227), pp. 71-105, (2018).
- 43. S. Tsiantis, A.N. Platis, Availability Modeling of Complex Systems with Accelerated Deterioration Due to Fault Interactions: An Application in Traveling Wave Tubes., *Reliability Engineering: Theory and Applications*, CRC Press Taylor and Francis Group, pp.17-41, (2018)

#### **International Conferences with refereed proceedings**

- 44. A. Platis, N. Limnios, M. Le Du, Electrical Substation Performability & Reliability Indicators Modeled by Non-Homogeneous Markov Chains, in Cacciabue, C., & Papazoglou, I. A., (Editors) *Probabilistic Safety Assessment and Management'96* (ESREL'96 PSAM III), Vol 1, pp. 709-714, Springer, (1996).
- 45. A. Platis, N. Limnios, M. Le Du, Asymptotic Availability of Systems Modeled by Cyclic Non-Homogeneous Markov Chains, *RAMS 97* (Annual Reliability and Maintainability Symposium Philadelphia USA Jan 1997), IEEE Press, pp. 293-297, (1997).
- 46. A. Bousfiha, N. Limnios, M. Le Du, A. Platis, Semi-Markov models applied to real systems, Proceedings of the *ESREL* '98, Balkema, pp. 591-597, (1998).
- 47. P. Tsopelas, A. Platis, ACE: An Indicator for the Dependability Evaluation of Computer Networks, Proceedings of the 5<sup>th</sup> International Conference on Probabilistic Safety Assessment and Management, S. Kondo and K. Furuta (eds) Universal Academy Press, Vol. 4, pp. 2389-2394, (2000).
- 48. A. Platis, D. Kastanis, P. Tsopelas, Performability Evaluation of Computer Networks with Cyclic Non-Homogeneous Markov Chains, Proceedings of the *ESREL 2001* Conference, pp. 389-396, (2001).
- 49. P. Tsopelas, A. Platis, Cost benefit analysis on alternative investments on computer networks, Proceedings of the *ESREL 2001* Conference, pp. 397-403 (2001).
- 50. G. Gravvanis, A. Platis, J. Violentis, K. Giannoutakis, Performability Evaluation of a Replicated Database System by Explicit Approximate Inverses, *PDPTA 2002*, pp. 114-120 (2002)
- 51. G. Gravvanis, A. Platis, K. Giannoutakis, J. Violentis, E. Lipitakis, Performability evaluation of multitasking and multiprocessor systems by explicit approximate inverses, Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (*PDPTA '2003*), H.R. Arabnia and Youngsong Mun eds, vol. III, pp. 1324-1331, CSREA Press, 23-26 June 2003, Las Vegas, Nevada, USA.
- 52. P. Tsopelas, A. Platis, Customer Oriented Dependability Analysis for Relational Database Management Systems, International Conference on Probabilistic Safety Assessment and Management, *ESREL'04 PSAM 7*, pp. 1597-1603, Springer-Verlag (2004).

- 53. J. Violentis, E. Banos, N. Kaklanis, G. Vouros, A. Platis, Designing more Reliable Web Sites with Performability Modeling, International Conference on Probabilistic Safety Assessment and Management, *ESREL'04 PSAM 7*, pp. 1603-1609, Springer-Verlag (2004).
- 54. M. Konstantinidou, E. Mennis, N. Nikitakos, A. Platis, Comparison of Modelling Methodologies for the Formal Safety Assessment in Shipping Transportation, International Conference on Probabilistic Safety Assessment and Management, *ESREL'04 PSAM 7*, pp. 3263-3269, Springer-Verlag (2004).
- 55. A. Platis, C. Lambrinoudakis, A. Leros, A probabilistic model for evaluating the operational cost of PKI-based transactions, Proceedings of the *1st European PKI Workshop* (EuroPKI'2004), S. Katsikas, S. Gritzalis, J. Lopez (Eds), pp. 149-160, Springer Verlag, Lecture Notes in Computer Science LNCS 3093, Samos, Greece, June 2004.
- 56. V. Koutras, A. Platis, Optimizing the amount of free memory on a computer system using software rejuvenation, *Advances in Safety and Reliability* Kołowrocki (ed.)© 2005 Taylor & Francis Group, London, ISBN 0415383404, pp 1187-1192, (2005).
- 57. C. Lambrinoudakis, A. Platis, A. Leros A PKI security reliability assessment methodology, *Advances in Safety and Reliability* Kołowrocki (ed.)© 2005 Taylor & Francis Group, London, ISBN 0415383404, pp 1229-1234, (2005).
- 58. V. Koutras, E. Mennis, N. Nikitakos, A. Platis, Software rejuvenation in maritime applications, *Advances in Safety and Reliability* Kołowrocki (ed.)© 2005 Taylor & Francis Group, London, ISBN 0 415 38340 4, pp 1193-1197, (2005).
- 59. E. Mennis, G. Lagoudis, N. Nikitakos, A. Platis, Improving Formal Safety Assessment in Shipping Transportation, International Maritime Association of the Mediterranean, *IMAM 2005*. Balkema, pp. 1565-1571 (2005).
- 60. M. Vafopoulos, G. Gravvanis and A. Platis. Intra- and Trans disciplinary semantic technologies, *HERCMA* conference proceedings (2005)
- 61. E. Mennis, G. Lagoudis, N. Nikitakos, A. Platis, "Applying reliability models to ship safety assessment", International Conference on Safety and Reliability *ESREL 2006*, 18-22 September 2006-Estoril, Portugal, Taylor & Francis, pp. 2805-2809 (2006).
- 62. Vasilis P. Koutras, Agapios N. Platis, "Optimal Rejuvenation Policy for Increasing VoIP Service Reliability", International Conference on Safety and Reliability *ESREL 2006*, 18-22 September 2006-Estoril, Portugal, Taylor & Francis, pp. 2285-2290 (2006).
- 63. Vasilis P. Koutras, Agapios. N Platis "Applying software rejuvenation in a two node cluster system for high availability", International Conference on Dependability of computer systems, DepCos-*RELCOMEX 2006*, IEEE Computer Society Press, pp. 175-182 (2006).
- 64. Vasilis P. Koutras, Agapios N. Platis, "Resource Availability Optimization for Priority Classes in a Website", The 12<sup>th</sup> IEEE International Symposium Pacific Rim Dependable Computing *PRDC'06*, 18-20 December 2006- Riverside, California, IEEE Computer Society Press, pp 305-312 (2006).
- 65. E. Mennis, G. Lagoudis, N. Nikitakos, A. Platis, "Applying reliability models to improve port container terminal efficiency", International Conference on Safety and Reliability *ESREL 2007*, 25-27 June 2007 Stavanger, Norway, Balkema (Taylor & Francis), pp 1353-1358 (2007).
- 66. Vasilis P. Koutras, Agapios N. Platis, George A Gravvanis, "Software Rejuvenation for Higher Levels of Grid Availability", International Conference on Safety and Reliability *ESREL* 2007, 25-27 June 2007 Stavanger, Norway, Balkema (Taylor & Francis), pp 1723-1730 (2007).
- 67. Vasilis P. Koutras, Agapios. N Platis "VoIP Availability and Service Reliability through Software Rejuvenation Policies", International Conference on Dependability of computer systems, DepCos-\*\*RELCOMEX 2007\*, IEEE Computer Society Press, pp. 262-269 (2007).
- 68. V. P. Koutras, A. N. Platis, G. A. Gravvanis, Software Rejuvenation on a Grid Computing Environment for Higher Availability Based on Approximate Inverse Preconditioning. *Proceedings of the 8<sup>th</sup> Hellenic European Research on Computer Mathematics & its Applications Conference* (HERCMA 2007).
- 69. J. B. Violentis, V. P. Koutras, A. N. Platis, G. A. Gravvanis, Asymptotic Availability of an Electrical Substation via a Semi-Markov Process Computed by Generalized Approximate Inverse Preconditioning, *Proceedings of the 8<sup>th</sup> Hellenic European Research on Computer Mathematics & its Applications Conference* (HERCMA 2007).
- 70. M. Vafopoulos, G. A. Gravvanis and A. N. Platis, New directions in Computing on Demand (CoD), *Proceedings of the 8<sup>th</sup> Hellenic European Research on Computer Mathematics & its Applications Conference* (HERCMA 2007).

- 71. Vasilis P. Koutras, Agapios. N. Platis "Semi-Markov Availability Modeling of a Redundant System with Partial and Full Rejuvenation Actions", International Conference on Dependability of computer systems, DepCos-*RELCOMEX 2008*, IEEE Computer Society Press, pp.127-134.
- 72. Vasilis P. Koutras, Agapios. N. Platis, "Modeling perfect and minimal rejuvenation for clinet server systems with heterogeneous load", The 14<sup>th</sup> IEEE International Symposium Pacific Rim Dependable Computing *PRDC'08*, 15-17 December 2008 Taipei, Taiwan, IEEE Computer Society Press, *to appear*, (2008).
- 73. Vasilis P. Koutras, Agapios. N. Platis "Guaranteed Resource Availability in a Website", Safety, Reliability, and Risk Analysis: Theory, Methods and Applications Martorell, Guedes Soares and Barnett (eds) International Conference on Safety and Reliability *ESREL 2008*, pp.1525-1532, 22-25 September 2008 Valencia, Spain.
- 74. Vasilis P. Koutras, Agapios. N. Platis, Nikolaos Limnios "Availability and Reliability Estimation for a System Undergoing Minimal, Perfect and Failed Rejuvenation", First International Workshop on Software Aging and Rejuvenation *WOSAR 2008* in conjunction with 19th IEEE International Symposium on Software Reliability Engineering *ISSRE 2008*, in press, 10-14 November, 2008, Seattle/Redmond, WA, USA.
- 75. Vasilis P. Koutras, Christoforos Salagaras, Agapios. N. Platis "Software Rejuvenation for Higher Levels of VoIP Availability", International Conference on Dependability of computer systems, DepCos-*RELCOMEX* 2009, IEEE Computer Society Press, pp. 99-106.
- Vasilis P. Koutras, Agapios. N. Platis "Modeling Resource Availability and Optimal Fee for Priority Classes in a Website", International Conference on Safety and Reliability *ESREL 2009*, 7-10 September 2009 -Prague, Czech Republic, pp. 1191-1998.
- 77. P. K. Saravakos, G. A. Gravvanis, V. P. Koutras, A. N. Platis, A Comprehensive Approach to Software Aging and Rejuvenation on a Single Node Software System, *Proceedings of the 10<sup>th</sup> Hellenic European Research on Computer Mathematics & its Applications Conference* (HERCMA 2009).
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Agapios N. Platis

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