# Dimos C. Charmpis — Curriculum Vitae

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## Academic education

**Doctor of Philosophy (PhD) in Civil Engineering** (Structural Mechanics)  **2003**
National Technical University of Athens, Greece
Thesis:  *'Structural analysis using conventional, adaptive and stochastic finite elements on clusters of networked computers'*
Advisor:  Prof. M. Papadrakakis

**Master of Business Administration (MBA)**  **1999**
National Technical University of Athens and Athens University of Economics and Business, Greece

**Diploma in Civil Engineering** (5-year programme completed)  **1994**
National Technical University of Athens, Greece

## Academic career history

**Associate Professor**  **2015 – today**
Department of Civil and Environmental Engineering (CEE), University of Cyprus

**Assistant Professor**  **2009 – 2015**
Department of Civil and Environmental Engineering (CEE), University of Cyprus

**Lecturer**  **2005 – 2009**
Department of Civil and Environmental Engineering (CEE), University of Cyprus

**Postdoctoral Researcher**  **2004 – 2005**
Institute of Engineering Mechanics, Leopold-Franzens University, Innsbruck, Austria
(research cooperation with Prof. G.I. Schuëller)

**Postdoctoral Researcher**  **2003 – 2004**
Institute of Structural Analysis and Seismic Research, National Technical University
of Athens, Greece (research cooperation with Prof. M. Papadrakakis)

## Research interests

Broad research area: **Structural and Infrastructure Engineering**
Main topics of interest: Finite Element analysis, Reliability/Robustness assessment of structures and systems, Lifecycle performance of deteriorating structures, Structural optimization, Masonry structures, Building thermal performance

# Publications

## Theses

T1. <u>D.C. Charmpis</u>, *'Matrix handling and solution techniques for the finite element method'*, **Diploma Thesis** (in Greek), Institute of Structural Analysis & Seismic Research, Department of Structural Engineering, Faculty of Civil Engineering, National Technical University of Athens, Greece, 1994 (partly conducted at Heriot-Watt University, Edinburgh, UK, in the framework of ERASMUS programme).

T2. <u>D.C. Charmpis</u>, *'Economic evaluation of small hydropower plants using Monte Carlo simulation'*, **MBA Thesis** (in Greek), National Technical University of Athens and Athens University of Economics and Business, Greece, 1999.

T3. <u>D.C. Charmpis</u>, *'Structural analysis using conventional, adaptive and stochastic finite elements on clusters of networked computers'*, **PhD Thesis** (in Greek), Institute of Structural Analysis & Seismic Research, Department of Structural Engineering, Faculty of Civil Engineering, National Technical University of Athens, Greece, 2003.

## Books/Proceedings editing

E1. Proceedings of the **First International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2007)**, M. Papadrakakis, <u>D.C. Charmpis</u>, N.D. Lagaros, Y. Tsompanakis (eds.), Chania, Crete, Greece, 2007 (in CD).

E2. Book *'Computational Structural Dynamics and Earthquake Engineering'*, M. Papadrakakis, <u>D.C. Charmpis</u>, N.D. Lagaros, Y. Tsompanakis (eds.), Structures and Infrastructures Series (Series ed.: D.M. Frangopol), CRC Press/Balkema, Taylor & Francis Group, London, UK, 2009, pp. 615. *ISBN: 978-0-415-45261-8*

## Book chapters

B1. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Dual domain decomposition solution techniques on workstation clusters'*, Chapter 2 in **Innovative Computational Methods for Structural Mechanics** (Saxe-Coburg Publications), M. Papadrakakis & B.H.V. Topping (eds.), Saxe-Coburg Publications, Edinburgh-Scotland, UK, pp. 27-54, 1999. *ISBN: 1-874672-05-9*

B2. I. Cismasiu, J.P. Moitinho de Almeida, L.M.S. Castro, <u>D.C. Charmpis</u>, *'Parallel solution techniques for hybrid mixed finite element models'*, Chapter 6 in **Innovative Computational Methods for Structural Mechanics** (Saxe-Coburg Publications), M. Papadrakakis & B.H.V. Topping (eds.), Saxe-Coburg Publications, Edinburgh-Scotland, UK, pp. 109-126, 1999. *ISBN: 1-874672-05-9*

B3. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Generation of balanced subdomain clusters with minimum interface for distributed domain decomposition applications'*, in **Domain Decomposition Methods in Science and Engineering, Vol. 40 of Lecture Notes in Computational Science and Engineering** (Springer), R. Kornhuber, R.H.W. Hoppe, D.E. Keyes, J. Périaux, O. Pironneau, J. Xu (eds.), pp. 555-562, 2004 (accepted after full text review – presented at the 15th International Conference on Domain Decomposition Methods, Freie Universität Berlin, Germany, 2003). *ISBN: 3-540-22523-4*

B4. <u>D.C. Charmpis</u>, G.I. Schuëller, *'Coping with physical uncertainties in structural mechanics: uncertainties modeling, methods of analysis and applications'*, in **Coping with Uncertainty – Modeling and Policy Issues, Vol. 581 of Lecture Notes in Economics and Mathematical Systems** (Springer), K. Marti, Y. Ermoliev, M. Makowski, G. Pflug (eds.), pp. 67-83, 2006 (accepted after full text review – presented at the IFIP/IIASA/GAMM Workshop on Coping with Uncertainty (CwU), IIASA, Laxenburg, Austria, 2004). *ISBN: 978-3-540-35258-7*

B5. <u>D.C. Charmpis</u>, *'Stochastic finite element analysis using separate structural and random field grids'*, in **Computational Stochastic Mechanics** (Millpress), G. Deodatis, P.D. Spanos (eds.), pp. 189-197, 2007 (presented at the 5th Computational Stochastic Mechanics Conference (CSM5), Rodos, Greece, 2006). *ISBN: 978-90-5966-052-6*

B6. <u>D.C. Charmpis</u>, *'Single and multi-objective design optimization under uncertainty considering structural robustness'*, Chapter 10 in **Soft Computing in Civil, Structural and Environmental Engineering** (Saxe-Coburg Publications), B.H.V. Topping, Y. Tsompanakis (eds.), Saxe-Coburg Publications, Stirlingshire-Scotland, UK, pp. 267-282, 2009 (presented at the 1st International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering (CSC 2009), Funchal, Madeira, Portugal, 2009). *ISBN: 978-1-874672-43-2*

B7. N.D. Lagaros, <u>D.C. Charmpis</u>, *'Efficiency and robustness of three metaheuristics in the framework of structural optimization'*, in **Artificial Intelligence Applications and Innovations** (Springer), H. Papadopoulos, A.S. Andreou, M. Bramer (eds.), pp. 104-111, 2010 (accepted after full text review – presented at the 6th IFIP International Conference on Artificial Intelligence Applications and Innovations, Larnaca, Cyprus, 2010). *ISBN: 978-3-642-16238-1*

B8. R. Illampas, <u>D.C. Charmpis</u>, I. Ioannou, *'Non-linear dynamic finite element analysis of adobe masonry structures with various roof diaphragm configurations'*, in **Seismic Assessment, Behavior and Retrofit of Heritage Buildings and Monuments, Vol. 37 of Computational Methods in Applied Sciences** (Springer), I. Psycharis, S.J. Pantazopoulou, M. Papadrakakis (eds.), pp. 475-487, 2015 (accepted after full text review). *ISBN: 978-3-319-16129-7*

B9. <u>D.C. Charmpis</u>, L. Dimitriou, *'A stress-test of alternative formulations and algorithmic configurations for the binary combinatorial optimization of bridges rehabilitation selection'*, in **Engineering and Applied Sciences Optimization, Vol. 38 of Computational Methods in Applied Sciences** (Springer), N.D. Lagaros, M. Papadrakakis (eds.), pp. 489-507, 2015. *ISBN: 978-3-319-18319-0*

## Refereed international journal papers

J1. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Enhancing the performance of the FETI method with preconditioning techniques implemented on clusters of networked computers'*, **Computational Mechanics** (Springer) 30(1), pp. 12-28, 2002. https://doi.org/10.1007/s00466-002-0363-6

J2. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Subdomain cluster generation for domain decomposition methods using graph partitioning optimization'*, **Engineering Computations: International Journal for Computer-Aided Engineering** (Emerald), 20(8), pp. 932-963, 2003. https://doi.org/10.1108/02644400310502973

J3. <u>D.C. Charmpis</u>, P.L. Panteli, *'A heuristic approach for the generation of multivariate random samples with specified marginal distributions and correlation matrix'*, **Computational Statistics** (Springer), 19(2), pp. 283-300, 2004. https://doi.org/10.1007/BF02892061

J4. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Improving the computational efficiency in finite element analysis of shells with uncertain properties'*, **Computer Methods in Applied Mechanics and Engineering** (Elsevier), Special Issue on *Computational Methods in Stochastic Mechanics and Reliability Analysis*, 194(12-16), pp. 1447-1478, 2005. https://doi.org/10.1016/j.cma.2003.12.075

J5. <u>D.C. Charmpis</u>, N.D. Lagaros, M. Papadrakakis, *'Multi-database exploration of large design spaces in the framework of cascade evolutionary structural sizing optimization'*, **Computer Methods in Applied Mechanics and Engineering** (Elsevier), Special issue on *Recent Advances in Structural Design Optimization*, 194(30-33), pp. 3315-3330, 2005. https://doi.org/10.1016/j.cma.2004.12.020

J6. N.D. Lagaros, <u>D.C. Charmpis</u>, M. Papadrakakis, *'An adaptive neural network strategy for improving the computational performance of evolutionary structural optimization'*, **Computer Methods in Applied Mechanics and Engineering** (Elsevier), Special issue on *Recent Advances in Structural Design Optimization*, 194(30-33), pp. 3374-3393, 2005. https://doi.org/10.1016/j.cma.2004.12.023

J7. G.A. Markou, Z.S. Mouroutis, <u>D.C. Charmpis</u>, M. Papadrakakis, *'The ortho-semi-torsional (OST) spring analogy method for 3D mesh moving boundary problems'*, **Computer Methods in Applied Mechanics and Engineering** (Elsevier), 196(4-6), pp. 747-765, 2007. https://doi.org/10.1016/j.cma.2006.04.009

J8.   H.J. Pradlwarter, G.I. Schuëller, P.S. Koutsourelakis, D.C. Charmpis, *'Application of line sampling simulation method to reliability benchmark problems'*, **Structural Safety** (Elsevier), Special issue on A Benchmark Study on Reliability in High Dimensions, 29(3), pp. 208-221, 2007. https://doi.org/10.1016/j.strusafe.2006.07.009

J9.   Z.S. Mouroutis, G.A. Markou, M. Papadrakakis, D.C. Charmpis, *'An efficient mesh updating technique for fluid structure interaction problems'*, **International Journal of Computational Methods** (World Scientific), 4(2), pp. 249-263, 2007. https://doi.org/10.1142/S0219876207001011

J10.  D.C. Charmpis, G.I. Schuëller, M.F. Pellissetti, *'The need for linking micromechanics of materials with stochastic finite elements: a challenge for materials science'*, **Computational Materials Science** (Elsevier), 41(1), pp. 27-37, 2007. https://doi.org/10.1016/j.commatsci.2007.02.014

J11.  V. Papadopoulos, D.C. Charmpis, M. Papadrakakis, *'A computationally efficient method for the buckling analysis of shells with stochastic imperfections'*, **Computational Mechanics** (Springer), 43(5), pp. 687-700, 2009. https://doi.org/10.1007/s00466-008-0338-3

J12.  D.C. Charmpis, *'Incomplete factorization preconditioners for the iterative solution of Stochastic Finite Element equations'*, **Computers and Structures** (Elsevier), 88(3-4), pp. 178-188, 2010. https://doi.org/10.1016/j.compstruc.2009.09.010

J13.  D.C. Charmpis, P. Komodromos, M.C. Phocas, *'Optimized earthquake response of multi-storey buildings with seismic isolation at various elevations'*, **Earthquake Engineering and Structural Dynamics** (Wiley), 41(15), pp. 2289-2310, 2012. https://doi.org/10.1002/eqe.2187

J14.  V. Vavourakis, D. Loukidis, D.C. Charmpis, P. Papanastasiou, *'Assessment of remeshing and remapping strategies for large deformation elastoplastic Finite Element analysis'*, **Computers and Structures** (Elsevier), 114–115, pp. 133-146, 2013. https://doi.org/10.1016/j.compstruc.2012.09.010

J15.  R. Illampas, I. Ioannou, D.C. Charmpis, *'Overview of the pathology, repair and strengthening of adobe structures'*, **International Journal of Architectural Heritage** (Taylor & Francis), 7(2), pp. 165-188, 2013. https://doi.org/10.1080/15583058.2011.624254

J16.  V. Vavourakis, D. Loukidis, D.C. Charmpis, P. Papanastasiou, 'A robust finite element approach for large deformation elastoplastic plane-strain problems', **Finite Elements in Analysis and Design** (Elsevier), 77, pp. 1-15, 2013. https://doi.org/10.1016/j.finel.2013.08.003

J17.  R. Illampas, I. Ioannou, D.C. Charmpis, *'Adobe bricks under compression: experimental investigation and derivation of stress-strain equation'*, **Construction and Building Materials** (Elsevier), 53, pp. 83-90, 2014. https://doi.org/10.1016/j.conbuildmat.2013.11.103

J18.  M.C. Elliotis, D.C. Charmpis, G.C. Georgiou, *'The singular function boundary integral method for an elastic plane stress wedge beam problem with a point boundary singularity'*, **Applied Mathematics and Computation** (Elsevier), 248, pp. 93-100, 2014. https://doi.org/10.1016/j.amc.2014.09.090

J19.  R. Illampas, D.C. Charmpis, I. Ioannou, *'Laboratory testing and finite element simulation of the structural response of an adobe masonry building under horizontal loading'*, **Engineering Structures** (Elsevier), 80, pp. 362-376, 2014. https://doi.org/10.1016/j.engstruct.2014.09.008

J20.  P.C. Polycarpou, L. Papaloizou, P. Komodromos, D.C. Charmpis, *'Effect of the seismic excitation angle on the dynamic response of adjacent buildings during pounding'*, **Earthquakes and Structures** (Techno Press), 8, pp. 1127-1146, 2015. https://doi.org/10.12989/eas.2015.8.5.1127

J21.  D.C. Charmpis, M.C. Phocas, P. Komodromos, *'Optimized retrofit of multi-storey buildings using seismic isolation at various elevations: assessment for several earthquake excitations'*, **Bulletin of Earthquake Engineering** (Springer), 13(9), pp. 2745-2768, 2015. https://doi.org/10.1007/s10518-015-9737-y

J22.  D.C. Charmpis, A. Kontogiannis, *'The cost of satisfying design requirements on progressive collapse resistance – Investigation based on structural optimisation'*, **Structure and Infrastructure Engineering** (Taylor & Francis), 12(6), pp. 695-713, 2016. https://doi.org/10.1080/15732479.2015.1038725

J23.  G.S. Papavasileiou, D.C. Charmpis, *'Seismic design optimization of multi-storey steel-concrete composite buildings'*, **Computers and Structures** (Elsevier), 170, pp. 49-61, 2016.

https://doi.org/10.1016/j.compstruc.2016.03.010

J24. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'Experimental assessment of adobe masonry assemblages under monotonic and loading-unloading compression'*, **Materials and Structures** (Springer/RILEM), 50(1), Article 79, pp. 1-18, 2017. https://doi.org/10.1617/s11527-016-0952-z

J25. R. Illampas, R.A. Silva, <u>D.C. Charmpis</u>, P.B. Lourenço, I. Ioannou, *'Validation of the repair effectiveness of clay-based grout injections by lateral load testing of an adobe model building'*, **Construction and Building Materials** (Elsevier), 153, pp. 174-184, 2017. https://doi.org/10.1016/j.conbuildmat.2017.07.054

J26. A. Kyriakidis, A. Michael, R. Illampas, <u>D.C. Charmpis</u>, I. Ioannou, *'Thermal performance and embodied energy of standard and retrofitted wall systems encountered in Southern Europe'*, **Energy** (Elsevier), 161, pp. 1016-1027, 2018. https://doi.org/10.1016/j.energy.2018.07.124

J27. <u>D.C. Charmpis</u>, *'The effect of correlations among random member properties on structural reliability'*, **Structures** (Elsevier), 19, pp. 463-475, 2019. https://doi.org/10.1016/j.istruc.2019.02.002

J28. A. Kyriakidis, A. Michael, R. Illampas, <u>D.C. Charmpis</u>, I. Ioannou, *'Comparative evaluation of a novel environmentally responsive modular wall system based on integrated quantitative and qualitative criteria'*, **Energy** (Elsevier), 188, Article 115966, pp. 1-12, 2019. https://doi.org/10.1016/j.energy.2019.115966

J29. G.S. Papavasileiou, <u>D.C. Charmpis</u>, *'Earthquake-resistant buildings with steel or composite columns: Comparative assessment using structural optimization'*, **Journal of Building Engineering** (Elsevier), 27, Article 100988, pp. 1-10, 2020. https://doi.org/10.1016/j.jobe.2019.100988

J30. G.S. Papavasileiou, <u>D.C. Charmpis</u>, N.D. Lagaros, *'Optimized seismic retrofit of steel-concrete composite buildings'*, **Engineering Structures** (Elsevier), 213, Article 110573, pp. 1-12, 2020. https://doi.org/10.1016/j.engstruct.2020.110573

J31. F. Alogdianakis, <u>D.C. Charmpis</u>, I. Balafas, *'Macroscopic effect of distance from seacoast on bridge deterioration – Statistical assessment based on structural condition recordings'*, **Structures** (Elsevier), 27, pp. 319-329, 2020. https://doi.org/10.1016/j.istruc.2020.05.052

J32. A.I. Ioannou, S.J. Pantazopoulou, M.F. Petrou, <u>D.C. Charmpis</u>, *'Experimental investigation of ECC jackets for repair of pre-damaged R.C. members under monotonic loading'*, **Buildings** (MDPI), 11(5), Article 180, pp. 1-18, 2021. https://doi.org/10.3390/buildings11050180

**Publications in conference proceedings**

C1. M. Papadrakakis, <u>D.C. Charmpis</u>, *'Domain decomposition solution techniques on workstation clusters'*, in **Advances in Computational Mechanics with Parallel and Distributed Processing**, B.H.V. Topping (ed.), Civil-Comp Press, Edinburgh-Scotland, UK, pp. 143-153, 1997 (presented at the 1st Euro-Conference on Parallel and Distributed Computing for Computational Mechanics, Lochinver-Scotland, UK).

C2. M. Papadrakakis, <u>D.C. Charmpis</u>, *'Computationally efficient methods for parallel adaptive finite element analysis'*, in **Advances in Computational Mechanics with High Performance Computing**, B.H.V. Topping (ed.), Civil-Comp Press, Edinburgh-Scotland, UK, pp. 79-86, 1998 (presented at the 2nd Euro-Conference on Parallel and Distributed Computing for Computational Mechanics, Sintra, Portugal).

C3. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Parallel solution techniques for hp-adaptive finite element analysis'*, in the **Proceedings of the 4th Hellenic-European Conference on Computer Mathematics and its Applications (HERCMA '98)**, E.A. Lipitakis (ed.), Athens, Greece, pp. 798-810, 1998.

C4. <u>D.C. Charmpis</u>, M. Papadrakakis, G. Stefanou, *'A domain decomposition solution for the stochastic finite element analysis of shells' (Keynote Lecture)*, in the **Proceedings of the 5th World Congress on Computational Mechanics (WCCM V)**, H.A. Mang, F.G. Rammerstorfer & J. Eberhardsteiner (eds.), Vienna University of Technology, Vienna, Austria, 2002.

C5. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Parallel computational techniques for h-, p- and hp-adaptive finite element analysis'*, in the **Proceedings of the 5th World Congress on Computational Mechanics (WCCM V)**, H.A. Mang, F.G. Rammerstorfer & J. Eberhardsteiner (eds.), Vienna University of Technology, Vienna, Austria, 2002.

C6. M. Papadrakakis, <u>D.C. Charmpis</u>, *'Computationally efficient recovery-based p-adaptive finite element analysis' (Keynote Lecture)*, in the **Proceedings of the International Conference on Adaptive Modeling and Simulation (ADMOS 2003)**, N.-E. Wiberg & P. Díez (eds.), Chalmers University of Technology, Göteborg, Sweden, 2003.

C7. M. Papadrakakis, N.D. Lagaros, <u>D.C. Charmpis</u>, *'Soft computing and parallel processing techniques for efficient design optimization of large-scale structures' (Invited Lecture)*, **4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2004)**, Jyväskylä, Finland, 2004.

C8. <u>D.C. Charmpis</u>, M. Papadrakakis, *'The concept of separate structural and random field meshes in stochastic shell finite element analysis'*, **4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2004)**, Jyväskylä, Finland, 2004.

C9. N.D. Lagaros, <u>D.C. Charmpis</u>, M. Papadrakakis, *'Structural sizing optimization using multi-database cascade evolutionary algorithms to explore large design spaces'*, **6th World Congress on Computational Mechanics (WCCM VI) in conjunction with the 2nd Asian-Pacific Congress on Computational Mechanics (APCOM '04)**, Beijing, China, 2004.

C10. <u>D.C. Charmpis</u>, G.I. Schuëller, *'The need for linking micromechanics of materials with stochastic finite elements: a challenge for materials science'*, NSF Workshop on **Probability & Materials: From Nano- to Macro-Scale**, Johns Hopkins University, Baltimore, USA, 2005.

C11. Z.S. Mouroutis, G.A. Markou, <u>D.C. Charmpis</u>, D.G. Koubogiannis, M. Papadrakakis, *'An efficient mesh updating technique for fluid structure interaction problems'*, **International Conference on Computational Methods for Coupled Problems in Science and Engineering (COUPLED PROBLEMS 2005)**, M. Papadrakakis, E. Oñate & B. Schrefler (eds.), Santorini, Greece, 2005.

C12. <u>D.C. Charmpis</u>, G.I. Schuëller, *'Finite element mesh refinement in view of physical uncertainties'*, **5th International Colloquium on Computation of Shell and Spatial Structures (IASS-IACM 2005)**, Salzburg, Austria, 2005.

C13. <u>D.C. Charmpis</u>, N.D. Lagaros, M. Papadrakakis, *'Robust design optimization of structures with stochastic properties subjected to random seismic excitation'*, **5th International Colloquium on Computation of Shell and Spatial Structures (IASS-IACM 2005)**, Salzburg, Austria, 2005.

C14. N.D. Lagaros, M. Papadrakakis, <u>D.C. Charmpis</u>, Y. Tsompanakis, *'Advanced soft computing techniques in structural optimization' (Keynote Lecture)*, **International Symposium on Neural Networks and Soft Computing in Structural Engineering (NNSC 2005)**, Cracow, Poland, 2005.

C15. N.D. Lagaros, <u>D.C. Charmpis</u>, M. Papadrakakis, *'Assessing the seismic vulnerability of structures with stochastic properties'*, **6th European Conference on Structural Dynamics (EURODYN 2005)**, Paris, France, 2005.

C16. <u>D.C. Charmpis</u>, N.D. Lagaros, M. Papadrakakis, *'Vulnerability assessment and design optimization of structures with uncertain material properties and earthquake loading'*, **5th GRACM International Congress on Computational Mechanics (GRACM05)**, Limassol, Cyprus, 2005.

C17. G.I. Schuëller, H.J. Pradlwarter, P.S. Koutsourelakis, <u>D.C. Charmpis</u>, *'Application of line sampling simulation method to reliability benchmark problems'*, **9th International Conference on Structural Safety and Reliability (ICOSSAR 2005)**, Rome, Italy, 2005.

C18. <u>D.C. Charmpis</u>, M. Papadrakakis, *'Using parallel processing for large-scale finite element computations in the context of Monte Carlo simulation'*, **9th International Conference on Structural Safety and Reliability (ICOSSAR 2005)**, Rome, Italy, 2005.

C19. <u>D.C. Charmpis</u>, N.D. Lagaros, M. Papadrakakis, *'Reliability-based design optimization using evolutionary algorithms and adaptive neural networks'*, **III European Congress on Computational Solid and Structural Mechanics (ECCM-2006)**, Lisbon, Portugal, 2006.

C20. V. Plevris, N.D. Lagaros, <u>D.C. Charmpis</u>, M. Papadrakakis, *'Metamodel assisted techniques for structural optimization'*, **1st South-East European Conference on Computational Mechanics (SEECCM-06)**, Kragujevac, Serbia and Montenegro, 2006.

C21. <u>D.C. Charmpis</u>, *'Efficient iterative solution of stochastic finite element equations'*, **11th International Conference on Civil, Structural and Environmental Engineering Computing (CC2007)**, St. Julians, Malta, 2007.

C22. <u>D.C. Charmpis</u>, *'Design optimization methodologies to achieve structural robustness'*, **1st Workshop of COST Action TU0601 'Robustness of Structures'**, Zurich, Switzerland, pp. 57-67, 2008.

C23. <u>D.C. Charmpis</u>, *'Probabilistic assessment and optimization of structural damage tolerance'*, **Leuven Symposium on Applied Mechanics in Engineering (LSAME.08), Non-Deterministic Modelling Workshop (NDM.08)**, Leuven, Belgium, 2008.

C24. <u>D.C. Charmpis</u>, *'Reliability and Robustness-Based Design Optimization (RRBDO)'*, **4th International ASRANet Colloquium** (a biyearly event of the Network for Integrating Structural Analysis, Risk and Reliability), Athens, Greece, 2008.

C25. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'Adobe: an environmentally friendly construction material'*, **4th International Conference on Sustainable Development and Planning (Sustainable Development 2009)**, Limassol, Cyprus, 2009.

C26. <u>D.C. Charmpis</u>, M.C. Phocas, P. Komodromos, *'Controling earthquake response of multi-storey buildings with optimized configurations of seismic isolators at various elevations'*, **2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009)**, Rhodes, Greece, 2009.

C27. <u>D.C. Charmpis</u>, N.D. Lagaros, T. Asbestopoulos, M. Papadrakakis, *'Structural sizing optimization with large numbers of design variables'*, **2nd South-East European Conference on Computational Mechanics (SEECCM 2009)**, Rhodes, Greece, 2009.

C28. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'Adobe monuments – Pathology, deterioration problems and restoration practices'* (in Greek), **Workshop on Restoration of Ancient Monuments and Interventions at Archaeological Sites**, Nicosia, Cyprus, 2009.

C29. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'A study of the deterioration and rehabilitation of adobe structures'*, **8th International Symposium on the Conservation of Monuments in the Mediterranean Basin (MONUBASIN 8)**, Patras, Greece, 2010.

C30. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'Destructive and non-destructive testing of the mechanical properties of hand-made adobe bricks'*, **Structural Faults & Repair – 2010**, Edinburgh, Scotland, UK, 2010.

C31. <u>D.C. Charmpis</u>, *'Evaluation of risk-based robustness using structural reliability estimation methods'*, **5th International ASRANet Colloquium** (a biyearly event of the Network for Integrating Structural Analysis, Risk and Reliability), Edinburgh, Scotland, UK, 2010.

C32. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'An assessment of the compressive strength of adobe brick assemblages'*, **9th HSTAM International Congress on Mechanics (HSTAM 2010)**, Limassol, Cyprus, 2010.

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C39. R. Illampas, I. Ioannou, <u>D.C. Charmpis</u>, *'A study of the mechanical behaviour of adobe masonry'*, **12th International Conference on Structural Repairs and Maintenance of Heritage Architecture (STREMAH 2011)**, Chianciano Terme, Italy, 2011.

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C44. <u>D.C. Charmpis</u>, *'Reliability-based design optimization of damage-tolerant elastoplastic frames'*, **10th International Probabilistic Workshop**, Stuttgart, Germany, 2012.

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