

## Προσωπικά Στοιχεία



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## ΕΡΓΑΣΙΑΚΗ ΕΜΠΕΙΡΙΑ

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Τμήμα Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών, ΕΛΜΕΠΑ.  
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Εφαρμοσμένης Πληροφορικής και Πολυμέσων, ΤΕΙ Κρήτης.  
Ινστιτούτο Πληροφορικής, Ίδρυμα Τεχνολογίας & Έρευνας  
Senior Associate, Princeton Consultants, Princeton, N.J., USA

Ιαν.2001 – Σεπτ.2003  
Φεβ.1998 – Οκτ.1999

## ΣΠΟΥΔΕΣ

- 1996 Ph.D. Physics & Astronomy, Dept of Physics and Astronomy,  
University of Pennsylvania, Philadelphia, PA, USA
- 1998 M.Sc.Eng. Hon, Dept of Computer and Information Science,  
University of Pennsylvania, Philadelphia, PA, USA
- 1988 B.Sc., Φυσική, Πανεπιστήμιο Κρήτης

## ΛΟΙΠΑ

### Ερευνητικά Ενδιαφέροντα

Πλαίσια και εργαλεία για την αποτύπωση και τη μελέτη της κίνησης και της συμπεριφοράς ζώντων οργανισμών. Ρεαλιστική μοντέλα βασισμένα στη φυσική και τρισδιάστατης απεικόνιση. Εφαρμογές επαυξημένης και εικονικής πραγματικότητας και "σοβαρά παιχνίδια" με εφαρμογές στην ιατρική, τον αθλητισμό, την αποκατάσταση και την επιστήμη.

- Exergame Platform for the Rehabilitation of Parkinson Disease Patients
- Exergame Platform for the Rehabilitation of Carpal Tunnel Syndrome
- R-Presentation: A remote client-server PowerPoint system

### Προγράμματα

Συμμετοχή σε προγράμματα του ΕΛΚΕ-ΕΛΜΕΠΑ, Κέντρου Τεχνολογικής Έρευνας, Ινστιτούτου Πληροφορικής ΙΤΕ.

### Επιστημονικές Επιτροπές κλπ

- International Program Committee, International Symposium on Ambient Intelligence and Embedded Systems (AmiEs-2018), Kiel, Germany, 12-15 September 2018
- Technical Program Committee, 6th EAI International Conference: ArtsIT, Interactivity & Game Creation, October 30–31, 2017 | Heraklion, Crete, Greece
- International Programme Committee, International Symposium on Ambient Intelligence and Embedded Systems (AmiEs-2017), Kiel, Germany, 14-15 September 2017
- Technical Program Committee, International Conference on Telecommunications & Multimedia (TEMU 2016), Heraklion, Crete, Greece, 25-27 July 2016
- International Program Committee, 20<sup>th</sup> International Conference on 3D Web Technology (Web3D 2015) June 18-21, Heraklion, Crete
- Technical Program Committee, International Conference on Telecommunications & Multimedia (TEMU 2014), Heraklion, Crete, Greece, 28-30 July 2014

- Reviewer, Journal of Virtual Worlds Research (JVWRResearch.org)  
[link at: <https://www.jvwrresearch.org/>]
- Reviewer, IEEE Journal of Biomedical and Health Informatics  
[link at: <https://jbi.embs.org/>]
- Reviewer, Elsevier Graphical Models  
[link at: <https://ees.elsevier.com/gmod/default.asp>]
- Reviewer, International Journal of Multimedia & Its Applications (IJMA)  
[link at: <http://airccse.org/journal/ijma.html>]
- Reviewer, International Journal of Therapy and Rehabilitation (IJTR)  
[link at: <https://www.magonlinelibrary.com/toc/ijtr/current>]

## Δημοσιεύσεις

### Περιοδικά / Journals

1. I. Pachoulakis, N. Papadopoulos and A. Analyti, "Kinect-based Exergames tailored to Parkinson Patients", International Journal of Computer Games Technology, Hindawi Publishing Corporation, Vol.2018, 14 pages.
2. I. Pachoulakis, D. Tsilidi and A. Analyti, "Computer-Aided Rehabilitation for the Carpal Tunnel Syndrome using Exergames", Advances in Image and Video Processing (AIVP), Vol.6, No.2, 2018, pp.44-56.
3. D. Tsilidi, I. Pachoulakis and A. Analyti, "Carpal Tunnel Syndrome: Causes, Prevention, Rehabilitation and Computer-Aided, Game-Based Physiotherapy", Advances in Image and Video Processing (AIVP), Vol.6, No.2, 2018, pp.57-69.
4. I. Pachoulakis, N. Xilourgos, N. Papadopoulos and A. Analyti, "Enrichment of a Kinect-based Physiotherapy and Assessment Platform for Parkinson's Disease Patients", Advances in Image and Video Processing (AIVP), Vol.5, No.1, 2017, pp.31-38.
5. A. Analyti and I. Pachoulakis, "Faceted operations on composed RDF ontologies", International Journal of Web Engineering and Technology (IJWET), Vol.11, No.2, 2016, pp.174-194.
6. I. Pachoulakis, N. Xilourgos, N. Papadopoulos and A. Analyti, "A Kinect-Based Physiotherapy and Assessment Platform for Parkinson's Disease Patients", Journal of Medical Engineering (JME), Hindawi Publishing Corporation, Vol.2016, 8 pages.
7. I. Pachoulakis and D. Tsilidi, "Technology-Assisted Carpal Tunnel Syndrome Rehabilitation using Serious Games: The Roller Ball Example", Advances in Image and Video Processing (AIVP), Vol.4, No.4, 2016, pp.24-30.
8. A. Analyti, C.V. Damasio and I. Pachoulakis, "Nested contextualised views in the web of data", International Journal of Web Engineering and Technology, Vol.10, No.1, 2015, pp.31-64.
9. I. Pachoulakis and K. Kourmoulis, "Setup and Calibration of a Camera-Based Stereoscopic Vision System", International Journal of Emerging Research in Management & Technology (IJERMT), Vol.4, No.11, 2015, pp.7-10.
10. I. Pachoulakis, N. Papadopoulos and C. Spanaki, "Parkinson's Disease Patient Rehabilitation using Gaming Platforms: Lessons Learnt", International Journal of Biomedical Engineering and Science (IJBES), Vol.2, No.4, 2015, pp. 1-12.
11. A. Analyti and I. Pachoulakis, "Datatype evolution on RDF ontologies", International Journal of Web Engineering and Technology, Vol.9, No.1, 2014, pp. 30-61.
12. A. Analyti, C.V. Damasio, G. Antoniou, and I. Pachoulakis, "Why-provenance information for RDF, rules, and negation", Annals of Mathematics and Artificial Intelligence Vol.70, No.3, 2014, pp. 221-277.
13. A. Analyti, G. Antoniou, C.V. Damasio and I. Pachoulakis, "A framework for modular ERDF ontologies", Annals of Mathematics and Artificial Intelligence Vol.67, No.3-4, 2013, pp. 189-249.
14. I. Pachoulakis, "Realistic Multimedia Simulations for Informatics Students", International Journal of Multimedia & Applications (IJMA) Vol.4, No.4, 2012, pp. 1-10.
15. I. Pachoulakis and K. Kapetanakis, "Augmented Reality Platforms for Virtual Fitting Rooms", The International Journal of Multimedia & its Applications (IJMA) Vol.4, No.4, 2012, pp. 35-46.
16. A. Analyti and I. Pachoulakis, "Temporally Annotated Extended Logic Programs", International Journal of Advanced Research in Artificial Intelligence (IJARAI) Vol.1, No.7, 2012, pp. 20-26.
17. A. Analyti and I. Pachoulakis, "Provenance and Temporally Annotated Logic Programming", International Journal of Advanced Research in Artificial Intelligence (IJARAI) Vol.1, No.7, 2012, pp. 14-19.
18. A. Analyti and I. Pachoulakis, "A Survey on Models and Query Languages for Temporally Annotated RDF", International Journal of Advanced Computer Science and Applications (IJACSA) Vol.3, No.9, 2012, pp. 28-35.
19. I. Pachoulakis, "3D Reconstruction and Visualization of Astrophysical Wind Volumes using Physical Models", ACM Transactions on Modeling and Computer Simulation, Vol.18(4), 2008, pp.

14.1-14.36

20. A. Analyti and I. Pachoulakis, "Logic Programming Representation of the Compound Term Composition Algebra", *Fundamenta Informaticae*, Vol.73(3), 2006, pp. 321-360.
21. A. Savidis, N. Maou, I. Pachoulakis & C. Stephanidis, "Continuity of interaction in Nomadic Interfaces through Migration and Dynamic Utilization of I/O Resources", *Universal Access in Information Society*, Vol.1, 2002, pp.274-287.
22. D. J. Stickland, C. Lloyd, I. Pachoulakis, and R.H. Koch, "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities, Paper 29: V Puppis (HD 65818)", *Observatory*, Vol.118, 1998, pp.356-364.
23. R.J. Pfeiffer, I. Pachoulakis, R. H. Koch, and D. J. Stickland, "The Winds of Hot, Close Binaries, Paper 3: HD 159176", *Observatory*, Vol.117, 1997, pp.301-309.
24. I. Pachoulakis, "Vientos Estelares: En el Espacio Sopla aún más duro uro", invited paper, *Planetarium*, Vol.1, 1996, pp.5-8.
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26. D. J. Stickland, C. Lloyd, R. H. Koch, and I. Pachoulakis, "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities, Paper 23: Pi Scorpii (HD 143018)", *Observatory*, Vol.116, 1996, pp.387-391.
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28. I. Pachoulakis, "HD 159176: Photospheric and Wind-dominated Light Curve Analyses coupled to Wind Modelling", *Monthly Notices of the Royal Astronomical Society*, Vol.280, 1996, pp.153-166.
29. D. J. Stickland, C. Lloyd, R. H. Koch, and I. Pachoulakis, "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities, Paper 18: TU Muscae (HD 100213)", *Observatory*, Vol.115, 1995, pp.317-321.
30. R. J. Pfeiffer, I. Pachoulakis, R. H. Koch, and D. J. Stickland, "The Winds of Hot Close Binaries, Paper 1: Y Cygni (HD 198846)", *Observatory*, Vol.114, 1994, pp.297-308.
31. D. J. Stickland, R. H. Koch, I. Pachoulakis, and R. J. Pfeiffer, "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities, Paper 15: LY Aurigae (HD 35921)", *Observatory*, Vol.114, 1994, pp.107-113.
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33. D. J. Stickland, R. H. Koch, I. Pachoulakis, and R. J. Pfeiffer, "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities, Paper 12: HD 159176", *Observatory*, Vol. 113, 1993, pp.204-209.
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## Συνέδρια / Conferences

1. I. Pachoulakis and N. Papadopoulos, "Exergames for Parkinson's Disease Patients: the Balloon Goon game", in *Proceedings of the 2016 International Conference on Telecommunications and Multimedia (TEMU'16)* - published in *IEEE Xplore*, 25-27 July 2016, Heraklion, Crete, Greece, pp.12-17.
2. I. Pachoulakis and S. Marinakis, "Customizing Physiotherapy Games tailored to Parkinson's Disease", in *Proceedings of the 2016 International Symposium on Ambient Intelligence and Embedded Systems (AMIES 2016)*, H. Dispert and G.M. Papadourakis (eds), 22-24 September 2016, Heraklion, Crete, Greece.
3. D. Tsilidi and I. Pachoulakis, "Carpal Tunnel Syndrome Rehabilitation using serious games", in *Proceedings of the 2016 International Symposium on Ambient Intelligence and Embedded Systems (AMIES 2016)*, H. Dispert and G.M. Papadourakis (eds), 22-24 September 2016, Heraklion, Crete, Greece.
4. I. Pachoulakis and G. Pontikakis "Combining Features of the Unreal and Unity Game Engines to Hone Development Skills", in *Proceedings of the 9th International Conference on New Horizons in Industry, Business and Education (NHIBE 2015)*, G.M. Papadourakis (ed), 27-29 August 2015, Skiathos, Greece, pp.64-68.
5. I. Pachoulakis, N. Papadopoulos and C. Spanaki, "Are Game Platforms Suitable for Parkinson Disease Patients?", in *Proceedings of the 9th International Conference on New Horizons in Industry, Business and Education (NHIBE 2015)*, G.M. Papadourakis (ed), 27-29 August 2015, Skiathos, Greece, pp.58-63.
6. I. Pachoulakis and K. Kourmoulis, "Building a Gait Analysis Framework for Parkinson's Disease

- Patients: Motion Capture and Skeleton 3D Representation", in Proceedings of the 2014 International Conference on Telecommunications and Multimedia (TEMU'14) - published in IEEE Xplore, 28-30 July, Heraklion, Crete, Greece
7. K. Kapetanakis, H. Andrioti, H. Vonorta, M. Zotos, N. Tsigkos and I. Pachoulakis, "Collaboration Framework in the EViE-m Platform", in Proceedings of the 2013 European Association for Education in Electrical and Information Engineering Annual Conference (EAEEIE'13), 30-31 May, Chania, Crete, Greece
  8. I. Pachoulakis and K. Kapetanakis, "The Question Manager and Tutoring Module for the EViE-m Platform", in Proceedings of the International Conference on Telecommunications and Multimedia (TEMU'12), 30 July -1 August, Heraklion, Crete, Greece, pp.196-201.
  9. K. Savvakis, Ch. Athanasaki, K. Loulakakis, A. Malamos, I. Pachoulakis, K. Vasilakis, S. Drakoulakis and J. Kaliakatsos, "Estimation of workload for academic staff members in T.E.I. of Crete", in Proceedings of the 7th International Conference on New Horizons in Industry, Business and Education (NHIBE 2011), G.M. Papadourakis (ed), 25-26 August 2011, Chios, Greece.
  10. I. Pachoulakis, "Realistic Multimedia Tools based on Physical Models: II. The Binary 3D Renderer (B3dR)", in Proceedings of the International Conference on Telecommunications and Multimedia (TEMU'08), 16-18 July 2008, Ierapetra, Greece.
  11. I. Pachoulakis, "Realistic Multimedia Tools based on Physical Models: I. The Spectrum Analyzer and Animator (SA2)", in Proceedings of the International Conference on Telecommunications and Multimedia (TEMU'08), 16-18 July 2008, Ierapetra, Greece
  12. A. Anastasakis & I. Pachoulakis, "Η Συμβολή των ΤΠΕ στο Marketing Plan των Ξενοδοχειακών Επιχειρήσεων της Κρήτης", in Management & Marketing στις Τουριστικές Επιχειρήσεις: Σύγχρονες και Καινοτόμες Προσεγγίσεις (MMTE 2008), 29-30 Μαΐου 2008, ΤΕΙ Κρήτης, Ηράκλειο.
  13. I. Pachoulakis, "Realistic Multimedia: From Physical Models to Instructive Multimedia Content", in Proceedings of the 8th International Conference on Computer Based Learning in Science (CBLIS 2007) - Contemporary Perspectives on New Technologies in Science and Education, C.P. Constantinou, Z.C. Zacharia and M. Papaevripidou (eds), 30 June - 6 July 2007, Learning in Science Group, University of Cyprus, ISBN 978-9963-671-06-9, pp.304-315.
  14. I. Pachoulakis, "Realistic Interactive Multimedia Generation using Physical Models - II. Visualizing the Stellar Wind Effective Envelopes", in Proceedings of the Annual Conference on Telecommunications and Multimedia (TEMU'06), 5-7 July, 2006, Heraklion, Crete, Greece.
  15. I. Pachoulakis, "Realistic Interactive Multimedia Generation using Physical Models - I. Visualizing the Stellar Surfaces", in Proceedings of the Annual Conference on Telecommunications and Multimedia (TEMU'06), 5-7 July, 2006, Heraklion, Crete, Greece.
  16. I. Pachoulakis, "Synchronous and Asynchronous Consumer Targeting in Mobile Marketing", in Proceedings of the Annual Conference on Telecommunications and Multimedia (TEMU'05), 23-26 June, 2005 ISBN 960-88785-1-9, pp.108-114.
  17. I. Pachoulakis, "Multimedia Wearable Sets: Devices and Communications", in Proceedings of the Annual Conference on Telecommunications and Multimedia (TEMU'05), 23-26 June, 2005 ISBN 960-88785-1-9, pp.142-149.
  18. I. Pachoulakis, "Multimedia Wearable Sets: Applications and Services", in Proceedings of the Annual Conference on Telecommunications and Multimedia (TEMU'05), ISBN, 23-26 June, 2005 ISBN 960-88785-1-9, pp.150-157.
  19. D. Akoumianakis and I. Pachoulakis, "Scenario Networks: Specifying User Interfaces with Extended Use Cases", in Proceedings of the 10th Panhellenic Conference in Informatics (PCI 2005), P. Bozanis and E.N. Houstis (eds), Springer-Verlag, Lecture Notes in Computer Science, Vol.3746, 2005, pp.491-501.
  20. I. Pachoulakis and D. Akoumianakis, "Usability concerns and requirements for Multimedia Wearable Sets used in m-Marketing campaigns", in Proceedings of the Scientific Congress on New Technologies & Marketing, 2005, C. Frangakis, V. Zacharopoulos and I. Kopanakis eds., 19-20 May 2005, ISBN 960-88785-0-0, pp.151-156.
  21. I. Pachoulakis, "Mobile Marketing Tools - A Remote Presentation System", in Proceedings of the Scientific Congress on New Technologies & Marketing, 2005, C. Frangakis, V. Zacharopoulos and I. Kopanakis eds., 19-20 May 2005, ISBN 960-88785-0-0, pp.230-233.
  22. I. Pachoulakis, "Balancing Push- and Pull- Based M-Marketing with Multimedia Wearable Sets", in Proceedings of the Scientific Congress on New Technologies & Marketing, 2005, C. Frangakis, V. Zacharopoulos and I. Kopanakis eds., 19-20 May 2005, ISBN 960-88785-0-0, pp.108-113.
  23. I. Pachoulakis, E. Pallis, and V. Zacharopoulos, "Using Regenerative DVB-T to extend e-Learning", in Proceedings of the 4th International Conference on New Horizons in Industry, Business and Education, G.M. Papadourakis & I. Lazaridis (eds), 25-26 August 2005, Corfu, Greece, ISBN 960-85316-9-1, pp.210-215.
  24. I. Pachoulakis, "Automated tools for real-time student assessment", in Proceedings of the 4th

- International Conference on New Horizons in Industry, Business and Education, G.M. Papadourakis & I. Lazaridis (eds), 25-26 August 2005, Corfu, Greece, ISBN 960-85316-9-1, pp.204-209.
25. I. Pachoulakis, "A Remote Presentation System developed at TEI of Crete", in Proceedings of the 4th International Conference on New Horizons in Industry, Business and Education, G.M. Papadourakis & I. Lazaridis (eds), 25-26 August 2005, Corfu, Greece, ISBN 960-85316-9-1, pp.297-302.
  26. R. H. Koch, I. Pachoulakis, R. J. Pfeiffer, and D. J. Stickland, "Winds of Massive, Main Sequence Close Binaries", invited paper in Workshop on Colliding Winds in Binary Stars, La Plata, Argentina, 1995, Virpi Niemela and Nidia Morrell eds., RevMexAA, Vol. 5, 1996, pp.9-15.
  27. I. Pachoulakis and P. Saizar, "The Mg II line of Nova Puppis 1991 on Day 150", in Cataclysmic Variables: Proceedings of the conference held in Abano Terme, Italy, 20-24 June 1994, A. Bianchini, M. della Valle, and M. Orio eds, Astrophysics and Space Science Library, Vol. 205, 1995, p.303.
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