

Yiorgos Chrysanthou, Associate Professor, University of Cyprus

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WORK EXPERIENCE

- 2007 - today** Associate Professor, Computer Science Department, University of Cyprus
2001 - 2007 Assistant Professor, Computer Science Department, University of Cyprus
1998-2001 Lecturer, Computer Science Department, University College London
1996-1998 Research Fellow, Computer Science Department, University College London
Visiting researcher: UCL (2013), SIAT, Chinese Academy of Sciences in Shenzhen (2009), University of Tel-Aviv & Hebrew Univ. of Jerusalem (1997), University of California at Berkeley (1992)

EDUCATION

- 1991-1996** PhD in Computer Science: “*Shadow Computation for 3D Interaction and Animation*”, Queen Mary and Westfield College (QMW), University Of London
1987-1990 BSc in Computer Science and Statistics, First Class Honours, QMW, University Of London

PROFESSIONAL ACTIVITIES

- Member of the Editorial Board of the Computers & Graphics journal (2011-today) and of the Journal of Eastern Mediterranean Archaeology and Heritage Studies, (2011-2016).
- Review Editor for the Journal Frontiers in Robotics and AI, Virtual Environments specialty (.).
- Program Co-Chair for international conferences: MIG 2010, ECMS 2008, ACM VRST 2006, VAST/EGSGH 2004 & VAST STARS 2010, ACM VRST 2005, and STAR Reports for EG 2005.
- Invited speaker for V-Crowds 2005, MIG 2008, City Modeling, Simulation & Vis 2008, MIG 2009, e-Learning Expo, Athens 2012, TEDx Univ of Nicosia 2014.
- Member of the IPC for over 85 international conferences in the last few years, including Eurographics, EG Rendering Symposium, Pacific Graphics, IEEE VR etc.
- Organiser of the conferences: EGRW’01, EG UK’01, EGSR’06 & Agia Napa Summer Seminar ‘06.
- An occasional referee for many of the journals and conferences in the wider Computer Graphics and Virtual Reality community as well as for various funding bodies, national and international.
- Evaluator for EU FP 7 project proposals (twice in 2013) and an FP7 running project (2015-today).
- External examiner for eleven PhD students, in seven different countries.

PHD SUPERVISION

PhD advisor of the following students:

- Panayiotis Hadjichristodoulou on *Real-time Object Relighting*, expected completion 2017
- Haris Zacharatos on *Affect recognition in Computer Games*, expected completion 2017
- Nikolas Ladas on *Illumination Neutrealisation*, expected completion 2016
- Marios Kyriakou, *The Simulation of Virtual Crowds and their Contribution to Presence in Immersive Virtual Environments*, compl. 2014
- Pan. Charalambous, *Data-Driven Techniques for Crowd Simulation and Evaluation*, compl. 2014

- Athanasios Gaitatzis, *Interactive Diffuse Global Illumination Discretization Methods*, compl. 2012
- Despina Michael, *Real-time High quality HDR Illumination & Tonemapped Rendering*, compl. 2010
- Franco Tecchia, *Image-Based Rendering For Visualisation Of Crowds In Real-Time*, compl. 2007
(co-supervised with Mel Slater)

INVOLVEMENT IN RESEARCH PROJECTS

Overall or local, coordinator for the following funded projects:

- **RISE - Research centre in Interactive media, Smart systems and Emerging technologies**, EU H2020-WIDESPREAD-2014-1-FPA-TEAMING, 2015-2016 (Scientific coordinator)
- **Energy Efficient Graphics Algorithms for Mobile Devices**, Cyprus Research Promotion Foundation (RPF), 2013-2015
- **Visual Dance Performance for Interactive Characters**, Cyprus RPF, 2012-2014
- **Reconstruction of everyday life in the 19th century Nicosia**, Cyprus RPF, 2012-2014
- **A State-of-the-Art VR CAVE facility for the Advancement of Multi-Disciplinary Research & Development in Cyprus**, Cyprus RPF, 2012-2014
- **HDRi: The digital capture, storage, transmission and display of real-world lighting**, EU COST Action IC1005, 2011-2015
- **Mobile AR-Assisted Maintenance**. Cyprus RPF, 2010-2012
- **Illumination Neutralisation With Application in Tracking**. Cyprus RPF, 2010-2012
- **SIMPOL – Synthesis of Dynamic Characters with Mocap Data for Human Animation: Educating the Cyprus Police Force**, Cyprus RPF, 2009-2011
- **Cyprus Food Virtual Museum**, Cyprus RPF, 2009-2010
- **Mediterranean Harbors – Ships And The Sea: The Invisible Routes**, EU Interreg III B Archimed, 2009
- **SCOLIOSIS 2 – Experimental photogrammetric system for diagnosis of scoliosis**, Cyprus RPF, 2008-2010
- **SURFDATA – Surface reconstruction from unorganized datasets**, Cyprus RPF, 2008-2009
- **A VR Tour in Nicosia of the 19th Century**, The Leventis Municipal Museum, 2008-2009
- **SCOLIOSIS – Automatic photogrammetry methods for diagnosis and follow-up of scoliosis**, Cyprus RPF, 2005-2008
- **TONEMAP – High fidelity images for a VR system with application to military training**, Cyprus RPF, 2005-2007
- **KIKIPES – Avatar navigation and animation for large virtual environments**, Cyprus RPF, 2005-2007
- **INTUITION – Network of excellence on VR and VE applications for future workspaces**, EU IST, Framework 6, Network of Excellence, 2004-2008
- **REALISM – A framework for realistic avatars**, Cyprus RPF, 2004-2005
- **3D reconstruction of archaeological sites using Computer Graphics**, University of Cyprus, 2003
- **CREATE – Constructivist Mixed Reality for Design, Education, and Cultural heritage**, EU IST, Framework 5, 2002-2005
- **Navigation du Savoir project**, EU Euromed H II, 2002-2005
- **Real-time Rendering of Densely Populated Urban Environments**, EPSRC, UK, 2000-2001
- **3D Centre for Electronic Commerce**, Principle investigator for the Virtual Shopping package DTI, UK and LINK, 2000-2002

PROFESSIONAL BODIES

- Member of ACM and ACM SIGGRAPH since 1997, of the European Association for Computer Graphics, since 1996 and IEEE Computer Society 1997-2011.
- Member of the executive committee of ICOMOS, Cyprus Chapter, since 2006.

SELECTED PUBLICATIONS

- A. Aristidou, P. Charalambous, Y. Chrysanthou**, “Emotion Analysis and Classification: Understanding the Performers' Emotions Using the LMA Entities”, *Computer Graphics Forum*, 34: 262–276, 2015.
- A. Aristidou, E. Stavrakis, P. Charalambous, Y. Chrysanthou, S. Himona**, “Folk Dance Evaluation Using Laban Movement Analysis”, *ACM Journal on Computing and Cultural Heritage (JOCCH)* 8 (4), 20, August 2015. (Best Paper Award at EG GCH 2015)
- A. Aristidou, Y. Chrysanthou and J. Lasenby**, "Extending FABRIK with Model Constraints", *Computer Animation and Virtual Worlds*, DOI: 10.1002/cav.1630. February 2015.
- P. Charalambous and Y. Chrysanthou**. The PAG Crowd: A Graph Based Approach for Efficient Data-Driven Crowd Simulation, accepted at *Computer Graphics Forum*, DOI: 10.1111/cgf.12403, June 2014.
- P. Charalambous, I. Karamouzas, S. Guy, and Y. Chrysanthou**. A Data-Driven Framework for Visual Crowd Analysis, *Pacific Graphics (Computer Graphics forum)*, October 2014.
- Zacharatos, H., Gatzoulis, C. and Chrysanthou, Y.** “Automatic Emotion Recognition based on Body Movement Analysis: A Survey”, *IEEE Comp. Graphics and Applications, Special Issue - The Next Big Thing*, 34 (6), Nov 2014.
- Zaharias, P., Michael, D. and Chrysanthou, Y.** Learning through Multi-touch Interfaces in Museum Exhibits: An Empirical Investigation. *Educational Technology & Society*, 16 (3), 374–384, 2013.
- G. Viguera, J.M. Orduna, M. Lozano, and Y. Chrysanthou** A Distributed Visualization System for Crowd Simulations, *Journal of Integrated Computer-Aided Engineering*, 18:4, 2011.
- L. Yangyan, W. Xiaokun, Y. Chrysanthou, A. Sharf, D. Cohen-Or and N. Mitra**. GlobFit: Consistently Fitting Primitives by Discovering Global Relations, accepted as full paper at SIGGRAPH 2011
- D. Michael and Y. Chrysanthou**. Fullsphere Irradiance Factorization for Real-time All-frequency Illumination for Dynamic Scenes, *Computer Graphics Forum Journal*, 29 (8) 2516–2529, December 2010.
- A. Lerner, Y. Chrysanthou, A. Shamir and D. Cohen-Or**. Context-Dependent Crowd Evaluation. *Pacific Graphics (Computer Graphics Forum Journal)*, China, September 2010.
- A. Lerner, E. Fitusi, Y. Chrysanthou and D. Cohen-Or**. Fitting Behaviors to Pedestrian Simulations. *EG/ACM Symposium on Computer Animation*, 199-208, New Orleans, August 2009.
- A. Lerner, Y. Chrysanthou and D. Lischinski**. Crowds by Example. *Computer Graphics Forum*, 26(3):655–664, September 2007.
- D. Cohen-Or, Y. Chrysanthou, C. Silva and F. Durant**. A Survey of Visibility for Walk-through Applications. *IEEE TVCG Journal*, Vol 9, No 3, July-September 2003, 412-431.
- Franco Tecchia, Celine Loscos and Yiorgos Chrysanthou**. Visualizing Crowds in Real-Time. *Computer Graphics forum*, Volume 21, Number 4, pp 753-765, December 2002.
- Franco Tecchia, Celine Loscos and Yiorgos Chrysanthou**. Image-Based Crowd Rendering. *IEEE Computer Graphics and Applications*, Volume 22, Number 2, pp 36-43, March-April 2002.
- T. Vassilev, B. Spanlang and Y. Chrysanthou**. Cloth Modelling for Real-time Animation, *Computer Graphics Forum* 20(3), 2001.
- BOOK - M.Slater, A. Steed and Y. Chrysanthou**. *Computer Graphics and Virtual Environments: From Realism to Real-Time*. ISBN 0-201-62420-6, 2001, Addison Wesley Publishers. (Also published in Chinese by Addison Wesley & China Machine Press 2004)

H-Index: 24, i10-index 40, Total citations: 2769 – source Google Scholar.

Patents

- With A. Artusi, B. Roch and A. Chalmers**. "Selective Tone Mapper", UK Patent Office. UK Patent Office. patent number GB2449272. 19 November 2008.
- With T. Vassilev and B. Spanlang**. “Method for dressing and animating synthetic characters”, Patent number 02749121.6-2218-GB 0203632, 8 August 2002.
- With Buxton B. F., Lawrence K. D., Spanlang B., Vassilev T. I., Thompson G., Goonatilake S. A., Treleven P. C., Walters J.** “System And Method For Visualizing Personal Appearance”. Patent number: WO2000GB04990 20001222, 28 July 2001.