

Andreas-Alexandros Vasilakis - Publications List

- THESIS **A. A. Vasilakis**, *Direct Rendering of Feature-based Skinning Deformations*, PhD Thesis, Dept. of Computer Science & Engineering, University of Ioannina, Greece, January, 2014. ND number: 36973.
- THESIS **A. A. Vasilakis**, *Robust Skeletal Animation of Articulated Modular Solid Objects*, Master Thesis, Dept. of Computer Science, University of Ioannina, Greece, July, 2008.
- JOURNAL PUBLICATIONS I. Evangelou, G. Papaioannou, K. Vardis, **A. A. Vasilakis**, *Fast Radius Search Exploiting Ray Tracing Frameworks*, conditionally accepted to JCGT, November, 2020.
- JOURNAL PUBLICATIONS I. Evangelou, G. Papaioannou, K. Vardis, **A. A. Vasilakis**, *Rasterization-based Progressive Photon Mapping*, The Visual Computer (CGI'2020 Special Issue), July, 2020. DOI: [10.1007/s00371-020-01897-3](https://doi.org/10.1007/s00371-020-01897-3).
- JOURNAL PUBLICATIONS **A. A. Vasilakis**, K. Vardis, G. Papaioannou, *A Survey of Multifragment Rendering*, Computer Graphics Forum, vol. 39 no. 2, pages 623-642, May, 2020. DOI: [10.1111/cgf.14019](https://doi.org/10.1111/cgf.14019)
- JOURNAL PUBLICATIONS N. Vitsas, G. Papaioannou, A. Gkaravelis and **A. A. Vasilakis**, *Illumination-Guided Furniture Layout Optimization*, Computer Graphics Forum (Proceedings of Eurographics 2020), vol. 39 no. 2, pages 291-301, May, 2020. DOI: [10.1111/cgf.13930](https://doi.org/10.1111/cgf.13930)
- JOURNAL PUBLICATIONS A. Lalos, **A. A. Vasilakis**, A. Dimas and K. Moustakas, *Adaptive Compression of Animated Meshes by Exploiting Orthogonal Iterations*, The Visual Computer (Proceedings of CGI 2017), Vol. 33, Issue 6, pages 811-821, 2017. DOI: [10.1007/s00371-017-1395-4](https://doi.org/10.1007/s00371-017-1395-4)
- JOURNAL PUBLICATIONS **A. A. Vasilakis**, G. Papaioannou and I. Fudos, *k⁺-buffer: An efficient, memory-friendly and dynamic k-buffer framework*, IEEE Transactions on Visualization and Computer Graphics, vol. 21, no. 6, pages 688-700, June, 2015. DOI: [10.1109/TVCG.2015.2417581](https://doi.org/10.1109/TVCG.2015.2417581)
- JOURNAL PUBLICATIONS **A. A. Vasilakis** and I. Fudos, *Pose Partitioning for Multi-resolution Segmentation of Arbitrary Mesh Animations*, Computer Graphics Forum (Proceedings of Eurographics 2014), vol. 33 no. 2, pages 293-302, April, 2014. DOI: [10.1111/cgf.12327](https://doi.org/10.1111/cgf.12327)
- JOURNAL PUBLICATIONS **A. A. Vasilakis** and I. Fudos, *Depth-fighting Aware Methods for Multifragment Rendering*, IEEE Transactions on Visualization and Computer Graphics, vol. 19, no. 6, pages 967-977, June, 2013. DOI: [10.1109/TVCG.2012.300](https://doi.org/10.1109/TVCG.2012.300)
- JOURNAL PUBLICATIONS J. Rossignac, I. Fudos, and **A. A. Vasilakis**, *Direct Rendering of Boolean Combinations of Self-Trimmed Surfaces*, Computer-Aided Design, Volume 45, Issue 2, February 2013, pages 288-300, ISSN 0010-4485. DOI: [10.1016/j.cad.2012.10.012](https://doi.org/10.1016/j.cad.2012.10.012)
- JOURNAL PUBLICATIONS **A. A. Vasilakis** and I. Fudos, *GPU Rigid Skinning using a Refined Skeletonization Method*, Computer Animation and Virtual Worlds, 22: 27-46, 2011. DOI: [10.1002/cav.382](https://doi.org/10.1002/cav.382)
- CONFERENCE PUBLICATIONS N. Vitsas, A. Gkaravelis, **A. A. Vasilakis**, K. Vardis, G. Papaioannou, *Rayground: An Online Educational Tool for Ray Tracing*, In Proceedings of the 41th Annual Conference of Eurographics (EG '20), Educational Papers, pages 01-08, Norrköping, Sweden. May 25-29, 2020. DOI: [10.2312/eged.20201027](https://doi.org/10.2312/eged.20201027)
- CONFERENCE PUBLICATIONS **A. A. Vasilakis**, K. Vardis, G. Papaioannou and K. Moustakas, *Variable k-buffer using Importance Maps*, In Proceedings of the 38th Annual Conference of Eurographics (EG '17), Short Papers, pages 21-24, Lyon, France, April 24-28, 2017. DOI: [10.2312/egsh.20171005](https://doi.org/10.2312/egsh.20171005)
- CONFERENCE PUBLICATIONS **A. A. Vasilakis**, I. Fudos and G. Antonopoulos, *PPS: Pose-to-Pose Skinning of Animated Meshes*, In Proceedings of the 2016 Computer Graphics International Conference (CGI '16), Short Papers, pages 53-56, Heraklion, Crete, Greece, June 28-July 1, 2016. DOI: [10.1145/2949035.2949049](https://doi.org/10.1145/2949035.2949049)

K. Vardis, **A. A. Vasilakis** and G. Papaioannou, *DIRT: Deferred Image-based Ray Tracing*, In Proceedings of the 8th Conference on High-Performance Graphics (HPG '16), pages 1-11, Dublin, Ireland, June 20-22, 2016. DOI: [10.2312/hpg.20161193](https://doi.org/10.2312/hpg.20161193)

K. Vardis, **A. A. Vasilakis** and G. Papaioannou, *A Multiview and Multilayer Approach for Interactive Ray Tracing*, In Proceedings of 20th meeting of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D '16), pages 171-178, Redmond, WA, USA, February 27-28, 2016. DOI: [10.1145/2856400.2856401](https://doi.org/10.1145/2856400.2856401)

A. A. Vasilakis and G. Papaioannou, *Improving k-buffer methods via Occupancy Maps*, In Proceedings of the 36th Annual Conference of Eurographics (EG '15), Short Papers, pages 69-72, Zurich, Switzerland, May 4-8, 2015. DOI: [10.2312/egsh.20151017](https://doi.org/10.2312/egsh.20151017)

A. A. Vasilakis and I. Fudos, *k⁺-buffer: Fragment Synchronized k-buffer*, In Proceedings of the 18th meeting of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D '14), pages 143-150, San Francisco, California, USA, March 14-16, 2014. DOI: [10.1145/2556700.2556702](https://doi.org/10.1145/2556700.2556702)

A. A. Vasilakis and I. Fudos, *S-buffer: Sparsity-aware Multi-fragment Rendering*, In Proceedings of the 33rd Annual Conference of Eurographics (EG '12), Short Papers, pages 101-104, Cagliari, Italy, May 13-18, 2012. DOI: [10.2312/conf/EG2012/short/101-104](https://doi.org/10.2312/conf/EG2012/short/101-104)

A. A. Vasilakis and I. Fudos, *Skeleton-based Rigid Skinning for Character Animation*, In Proceedings of the Forth International Conference on Computer Graphics Theory and Applications (GRAPP '09), pages 302-308, Lisbon, Portugal, February 5-8, 2009.

POSTER
PUBLICATIONS

A. A. Vasilakis and G. Papaioannou, *Accelerating k⁺-buffer using efficient fragment culling*, ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games 2015 (Posters), pages 129-129, San Francisco, California, USA, February 27-March 01, 2015. DOI: [10.1145/2699276.2721402](https://doi.org/10.1145/2699276.2721402)

E. Eftaxopoulos, **A. A. Vasilakis** and I. Fudos, *AR-TagBrowse: Annotating and Browsing 3D models on Mobile Devices*, Eurographics 2014 (Posters), Strasbourg, France, April 7-11, 2014.

A. A. Vasilakis and I. Fudos, *Z-fighting aware depth Peeling*, SIGGRAPH 2011 (Posters), Vancouver, Canada, August 7-11, 2011. DOI: [10.1145/2037715.2037801](https://doi.org/10.1145/2037715.2037801)

A. A. Vasilakis, G. Antonopoulos and I. Fudos, *Pose-to-Pose Skinning of Animated Meshes*, ACM/Eurographics Symposium on Computer Animation (Posters), Vancouver, Canada, August 5-7, 2011.

TECHNICAL
REPORTS

A. A. Vasilakis, V. Vassalos, *Report on Recent Information Visualization Research with Applications on Financial Data*, Oct 2019.

A. Gkaravelis, C. Kalampokis, G. Papaioannou, K. Vardis, **A. A. Vasilakis**, *STAR on Interactive Global Illumination Techniques and Inverse Lighting Problems*, GLIDE: Goal-driven Lighting for Dynamic 3D Environments, [Deliverable 1.1](#), August 2014.

OTHER
PUBLICATIONS

S. Kalogiannis, K. Deltouzos, E. Zacharaki, **A. A. Vasilakis**, K. Moustakas, J. Ellul, V. Megalooikonomou, *Integrating an openEHR-based personalized virtual model for the ageing population within HBase*, BMC Medical Informatics and Decision Making 19: 25, 2019. DOI: [10.1186/s12911-019-0745-8](https://doi.org/10.1186/s12911-019-0745-8)