

Journals
I. Evangelou, G. Papaioannou, K. Vardis, <b>A. A. Vasilakis</b> , <i>Fast Radius Search Exploiting Ray Tracing Frameworks</i> , Journal of Computer Graphics Techniques (JCGT), vol. 10, no. 1, 25-48, 2021. URL: <a href="http://icgt.org/published/0010/01/02/">http://icgt.org/published/0010/01/02/</a>
I. Evangelou, G. Papaioannou, K. Vardis, <b>A. A. Vasilakis</b> , <i>Rasterization-based Progressive Photon Mapping</i> , The Visual Computer (Proceedings of CGI 2020), 36, 1993-2004, July, 2020. DOI: 10.1007/s00371-020-01897-3 (acc. rate 22.75%)
<b>A. A. Vasilakis</b> , K. Vardis, G. Papaioannou, <i>A Survey of Multifragment Rendering</i> , Computer Graphics Forum (proc. Eurographics 2020, STAR)39(2), pages 623-642, May 2020. DOI: <a href="https://doi.org/10.1111/cgf.14019">10.1111/cgf.14019</a>
N. Vitsas, G. Papaioannou, A. Gkaravelis, <b>A. A. Vasilakis</b> , <i>Illumination-Guided Furniture Layout Optimization</i> , Computer Graphics Forum (proc. Eurographics 2020), 39(2), pages 291-301, May, 2020. DOI: <a href="https://doi.org/10.1111/cgf.13930">10.1111/cgf.13930</a> (acc. rate 34.75%)
A. Lalos, <b>A. A. Vasilakis</b> , A. Dimas and K. Moustakas, <i>Adaptive Compression of Animated Meshes by Exploiting Orthogonal Iterations</i> , The Visual Computer (Proceedings of CGI 2017), Vol. 33, Issue 6, pages 811-821, 2017. DOI: <a href="https://doi.org/10.1007/s00371-017-1395-4">10.1007/s00371-017-1395-4</a> (acc. rate 20%)
<b>A. A. Vasilakis</b> , G. Papaioannou and I. Fudos, <i>k+-buffer: An efficient, memory-friendly and dynamic k-buffer framework</i> , IEEE Transactions on Visualization and Computer Graphics, vol. 21, no. 6, pages 688-700, June, 2015. DOI: <a href="https://doi.org/10.1109/TVCG.2015.2417581">10.1109/TVCG.2015.2417581</a>
<b>A. A. Vasilakis</b> and I. Fudos, <i>Pose Partitioning for Multi-resolution Segmentation of Arbitrary Mesh Animations</i> , Computer Graphics Forum (Proceedings of Eurographics 2014), vol. 33 no. 2, pages 293-302, April, 2014. DOI: <a href="https://doi.org/10.1111/cgf.12327">10.1111/cgf.12327</a> (acc. rate 25%)
<b>A. A. Vasilakis</b> and I. Fudos, <i>Depth-fighting Aware Methods for Multifragment Rendering</i> , IEEE Transactions on Visualization and Computer Graphics, vol. 19, no. 6, pages 967-977, 06/2013. DOI: <a href="https://doi.org/10.1109/TVCG.2012.300">10.1109/TVCG.2012.300</a>
J. Rossignac, I. Fudos, and <b>A. A. Vasilakis</b> , <i>Direct rendering of Boolean combinations of self-trimmed surfaces</i> . Computer-Aided Design 45.2 (2013): 288-300. DOI: <a href="https://doi.org/10.1016/j.cad.2012.10.012">10.1016/j.cad.2012.10.012</a>
<b>A. A. Vasilakis</b> and I. Fudos, <i>GPU Rigid Skinning using a Refined Skeletonization Method</i> , Computer Animation and Virtual Worlds, 22: 27-46, 2011. DOI: <a href="https://doi.org/10.1002/cav.382">10.1002/cav.382</a>

Conferences
N. Vitsas, A. Gkaravelis, <b>A. A. Vasilakis</b> , K. Vardis, G. Papaioannou, <i>Rayground: An Online Educational Tool for Ray Tracing</i> , Proc. of Eurographics 2020 - Education Papers, pages 01-08, May 25-29, 2020. DOI: <a href="https://doi.org/10.2312/eged.20201027">10.2312/eged.20201027</a>
<b>A. A. Vasilakis</b> , K. Vardis, G. Papaioannou and K. Moustakas, <i>Variable k-buffer using Importance Maps</i> , In Proceedings of the 38th Annual Conference of Eurographics (EG '17), Short Papers, pages 21-24, Lyon, France, April 24-28, 2017. DOI: <a href="https://doi.org/10.2312/egsh.20171005">10.2312/egsh.20171005</a>
<b>A. A. Vasilakis</b> , I. Fudos and G. Antonopoulos, <i>PPS: Pose-to-Pose Skinning of Animated Meshes</i> , 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: <a href="https://doi.org/10.1145/2949035.2949049">10.1145/2949035.2949049</a>
K. Vardis, <b>A. A. Vasilakis</b> and G. Papaioannou, <i>DIRT: Deferred Image-based Ray Tracing</i> , In Proceedings of the 8th Conference on High-Performance Graphics (HPG '16), pages 1- 11, Dublin, Ireland, June 20-22, 2016. DOI: <a href="https://doi.org/10.2312/hpg.20161193">10.2312/hpg.20161193</a> (acc. rate 53%)
K. Vardis, <b>A. A. Vasilakis</b> and G. Papaioannou, <i>A Multiview and Multilayer Approach for Interactive Ray Tracing</i> , 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: <a href="https://doi.org/10.1145/2856400.2856401">10.1145/2856400.2856401</a> (acc. rate 42%)
<b>A. A. Vasilakis</b> and G. Papaioannou, <i>Improving k-buffer methods via Occupancy Maps</i> , In Proceedings of the 36th Annual Conference of Eurographics (EG '15), Short Papers, pages 69-72, Zurich, Switzerland, May 4-8, 2015. DOI: <a href="https://doi.org/10.2312/egsh.20151017">10.2312/egsh.20151017</a>

- 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,  *$k$ -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) (acc. rate 40%)
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- 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.
- 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.

#### Technical Reports

- A. A. Vasilakis**, V. Vassalos, *Report on Recent Information Visualization Research with Applications on Financial Data*, October 2019.
- A. Gkaravelis, C. Kalampokis, G. Papaioannou, K. Vardis, and **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)