

# Bernhard Kerbl

## Curriculum Vitæ

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### Current Positions

- since 11/2025 **Assistant Professor (Tenure Track)**, *University of Copenhagen (UCPH)*.  
Administration and research in various visual computing projects, lecturing and supervision.
- since 07/2023 **Principal Project Investigator**, *Vienna University of Technology (TU Wien)*.  
Administration and research in the IVILPC/IVA3D projects on high-speed point-based rendering.
- since 12/2025 **Ext. Collaborator**, *Pioneer Centre for Artificial Intelligence*.  
Student supervision and research on image-based AI.
- since 07/2023 **Ext. Collaborator**, *Institut de Recherche en Informatique et en Automatique (INRIA)*.  
Research on image-based rendering and 3D reconstruction for the GraphDeco ERC.

### Awards, Prizes & Nominations

- 2025 **Frontiers of Science Award**, *International Congress on Basic Science (ICBS)*.  
**AI 2000 Most Influential Scholar Award Honorable Mention**, AMiner.  
**Novo Nordisk Foundation RECRUIT Nominee**, *University of Copenhagen*.
- 2024 **Best Paper**, *Pacific Graphics (PG)*.  
**Best Paper**, *Eurographics Symposium on Parallel Graphics and Visualization (EGPGV)*.  
**Best Student Paper**, *International Conference on Computer Graphics Theory and Applications (GRAPP)*.
- 2023 **Best Paper**, *SIGGRAPH Technical Papers*, 1 of 5.  
**Best Presentation**, *Vulkanised Conference*, 1 of 3.
- 2022 **Wolfgang Straßer Best Paper Award**, *High-Performance Graphics (HPG)*.
- 2019 **Best Poster**, *SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D)*.

### Funding & Revenue Generation Entries with Outreach as [Clickable Links](#)

- 2026–2029 **Instant Visualization and Editing of Arbitrarily Large 3D Data Sets (IVA3D)**,  
*Fundamental Research Grant*, WWTF, \$920k.  
Principal investigator and proposal co-author.
- 2025–2026 **Data-driven Simulation and Rendering for Autonomous Robotic Colonoscopy**,  
*Hardware Donation*, NVIDIA, valued at \$60k.  
Project collaborator and proposal co-author
- 2025 **Frontiers of Science Award**, *Awarded Prize Compensation*, International Congress on Basic Science (ICBS), \$25k.  
Main recipient.
- 2023–2026 **Instant Visualization and Interaction for Large Point Clouds (IVILPC)**,  
*Fundamental Research Grant*, WWTF, \$700k.  
Co-principal investigator and main proposal author.

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## Previous Experience

- 04/2024–12/2024 **Visiting Scholar**, Carnegie Mellon University, Robotics Institute.  
Research on real-time-trainable, VR-ready 3D Gaussian Splatting in the Human Sensing Lab.
- 09/2022–07/2023 **Postdoc Researcher**, INRIA, Université Côte d'Azur.  
Developed 3D Gaussian Splatting and interactive NeRF deformation in the GraphDeco group.
- 10/2020–02/2023 **External Lecturer**, Fachhochschule Salzburg.  
Teaching rendering, real-time physics and GPU programming courses.
- 05/2019–09/2022 **Postdoc University Assistant**, TU Wien.  
Research and teaching at Institute of Visual Computing & Human-Centered Technology.
- 07/2019–09/2019 **Rendering Engineer Internship**, Epic Games.  
Worked on *Nanite*, Unreal Engine's virtual geometry rendering pipeline.
- 01/2014–05/2019 **Research Assistant**, TU Graz.  
Research on GPU scheduling at Institute for Computer Graphics and Vision.

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## Higher Education

- 2014–2018 **Ph.D. Computer Science**, Graz University of Technology, Austria (TU Graz).  
2013 **Interim Research Stay**, Lund University, Sweden.  
2008–2013 **M.Sc. Software Development and Business Management**, TU Graz.

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## Patents

- 2025 System and method for real-time three-dimensional reconstruction and streaming of sports events and concerts, US20250384627A1, with and for Carnegie Mellon University, Pittsburgh, USA (Pending)
- 2021 Methods and apparatus for efficient multi-view rasterization, US11132831B1, with and for QUALCOMM Incorporated, San Diego, CA
- 2016 Method for creating three-dimensional documentation, WO2016046054A1, with and for Anstalt für Verbrennungskraftmaschinen List (AVL), Graz, Austria

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## Conference Committees

- 2026 ACM Symposium on Interactive 3D Graphics and Games, I3D '26 (Technical Papers)  
Eurographics, EG '26 (Technical Papers)  
Eurographics, EG '26 (Short Papers)
- 2025 SIGGRAPH Asia '25 (Technical Papers)  
European Conference on Visual Media Production, CVMP '25 (Short Papers Award)  
High-Performance Graphics, HPG '25 (Technical Papers)  
ACM Symposium on Interactive 3D Graphics and Games, I3D '25 (Technical Papers)  
Foundations of Digital Games, FDG '25 (Technical Papers)
- 2024 SIGGRAPH Asia '24 (Technical Papers)  
Eurographics, EG '24 (Short Papers)
- 2022 SIGGRAPH Asia '22 (Posters and Technical Communications)  
Foundations of Digital Games, FDG '22 (Technical Papers)  
High-Performance Graphics, HPG '22 (Technical Papers)  
Eurographics, EG '22 (Short Papers)
- 2021 Eurographics, EG '21 (Short Papers)

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## Community Services

Journal Review	Nature Communications ACM Transactions on Graphics (TOG) IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) IEEE Transactions on Visualization and Computer Graphics (TVCG) IEEE Transactions on Image Processing (TIP) Computer Graphics Forum (CGF) Computer-Aided Design (CAD) Computers and Graphics (CG) Journal of Systems and Software (JSS) Mathematics IEEE Sensors IEEE Transactions on Neural Networks and Learning Systems (TNNLS) IEEE Transactions on Circuits and Systems for Video Technology Computer Methods and Programs in Biomedicine
Conference Review	ACM SIGGRAPH Eurographics (EG) Pacific Graphics (PG) High-Performance Graphics (HPG) IEEE International Conference on Robotics and Automation (ICRA) IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) International Symposium on Mixed and Augmented Reality (ISMAR) ACM Symposium on Virtual Reality and Software Technology (VRST) IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)
Other	SIGGRAPH Technical Papers Conflict-of-Interest Coordination

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## Thesis Supervision

PhD	(co-supervised) <b>João Cardoso</b> , <i>TU Wien</i> , "Approaching Untackled Image-Space Problems with Optimization". <b>Johannes Unterguggenberger</b> , <i>TU Wien</i> , "High Geometry Loads in Real-Time Rendering on Modern GPUs". <b>Adam Celarek</b> , <i>TU Wien</i> , To be determined..
Master's	<b>Slavko Ivanovic</b> , <i>FH Salzburg</i> , "GPU-based Procedural Content Generation with Wave Function Collapse". <b>Johannes Schatteiner</b> , <i>FH Salzburg</i> , "Accelerating Particle-based Physics for Games via Techniques from Smoothed Particle Hydrodynamics".
Bachelor's	<b>Ole Siemers</b> , <i>TU Wien</i> , "Enhancing a 3D City Model with Image-Data". <b>Elias Kristmann</b> , <i>TU Wien</i> , "Occluder Frequency Analysis for Occludee LODs". <b>Linus Horváth</b> , <i>TU Wien</i> , "Fast Triangle Encoding for Cached Tessellation". <b>Alexandra Gamsjäger</b> , <i>TU Wien</i> , "Procedural Models with Parser Generators".

- Pascal Hann**, *TU Wien*, "Incremental Path-Tracing of Editable Scenes".  
**Moritz Roth**, *TU Wien*, "View-Dependent Impostors for Procedural Buildings".  
**Martin Rumpelnik**, *TU Wien*, "Planetary Rendering with Mesh Shaders".  
**Jakob Pernsteiner**, *TU Wien*, "Ensuring Effectiveness of CHC++ in Vulkan".  
**Benedikt Mayr**, *TU Graz*, "Representative Lightcuts".
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## Teaching Entries with Outreach as [Clickable Links](#)

- TU Wien** [\*\*Rendering\*\*](#), *10–20 students*, Lecture and Exercises.  
[\*\*Scientific Research and Writing\*\*](#), *10–20 students*, Exercises.  
**FH Salzburg** [\*\*GPU-based Simulation\*\*](#), *10–20 participants*, Classroom Teaching.  
[\*\*Game Physics\*\*](#), *10–20 students*, Classroom Teaching.  
**TU Graz** [\*\*Real-Time Graphics\*\*](#), *20–40 students*, Lecture and Exercises.  
[\*\*GPU Programming\*\*](#), *10–20 students*, Exercises.  
[\*\*Virtual Reality\*\*](#), *10–20 students*, Exercises.  
[\*\*Introduction to Computer Graphics\*\*](#), *60–100 students*, Exercises.  
[\*\*Introduction to Scientific Working\*\*](#), *10–20 students*, Exercises.
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## In the Media

- 2025 "Gaussian Splatting in Superman", *Radiance Fields*.  
2024 "Une technique révolutionnaire de création de scènes en 3D", *LeMonde*.  
"3D Gaussian Splatting!", *Computerphile*, *Youtube*.  
2023 "Where Does A.I. End and We Begin?", *The New York Times*.  
"Navigating The Digital Future: How Cutting-Edge Technologies Are Revolutionizing Marketing And Content Creation", *Forbes*.  
"Wow, NVIDIA's Rendering, But 10× Faster!", *Two Minute Papers*, *Youtube*.  
"3D Gaussian Splatting: Fotorealistische Aufnahmen für Unreal Engine & Co.", *heise.de*.

## Outreach & Organization

- since 12/2025 Member of the interdisciplinary [\*\*Pioneer Center for AI\*\*](#) hosted by UCPH  
01/2025 Guest Appearance on the [\*\*View Dependent Podcast\*\*](#)  
2019–2023 Member of the interdisciplinary [\*\*Center for Geometry and Design \(GCD\)\*\*](#) at TU Wien  
2020–2022 Courseware for sandboxed, CI exercise submission/testing (Gitlab/Docker) at TU Wien  
2014–2019 *Deskotheke*: Software solution for a CAVE2-style system for VR students at TU Graz
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## Presentations Entries with Outreach as [Clickable Links](#)

- 2025 [\*\*Real-Time Radiance Fields and their Applications\*\*](#), *Computationally Optimal Gaussian Splatting (COGS) '25*, ICCV, Keynote.  
[\*\*3D Gaussian Splatting: On Real-Time Radiance Fields and Their Applications\*\*](#), *International Congress on Basic Science (ICBS) '25*, Beijing, Award Talk.  
[\*\*Recent Advances and Future Developments for High-Speed Radiance Fields\*\*](#), *Central European Seminar on Computer Graphics (CESCG) '25*, Smolenice, Keynote.  
[\*\*Rendering and Geometry from 3D Gaussian Splatting\*\*](#), *Symposium on Geometry Processing (SGP) Graduate School*, Bilbao, Invited Talk.  
[\*\*Recent Advances and Future Developments of 3D Gaussian Splatting\*\*](#), *Huawei Future Device Technology Summit*, Oulu, Invited Talk.

- 2024 **Recent Advances and Future Developments of 3D Gaussian Splatting**, *Huawei Cloud InnovWave*, Dresden, Invited Talk.
- Foundations and Recent Advances of 3D Gaussian Splatting**, *SIGGRAPH Asia*, Tokyo, Birds of a Feather.
- Recent Advances of 3D Gaussian Splatting**, *Visual Computing Seminar, MIT, Cambridge*.
- 3D Gaussian Splatting—Theory and Practice**, *3D Vision Summer School, IIIT Bangalore*, hosted by Prof. Avinash Sharma.
- High-Speed Rendering for Point Clouds and Radiance Fields**, *Facebook Reality Labs, Pittsburgh*, hosted by Dr. Michael Zollhöfer.
- 3D Gaussian Splatting**, *3DV '24*, Tutorial.
- Software Rendering Across the Board: Meshes, Point Clouds, Radiance Fields**,  
LORIA, Université de Lorraine, hosted by Prof. Dmitry Sokolov  
IDEAS NCBR, Warsaw, hosted by Prof. Przemysław Musalski  
VISUS, University of Stuttgart, hosted by Prof. Dieter Schmalstieg  
Max-Planck Institute for Informatics, Saarbrücken, hosted by Prof. Christian Theobalt.
- 2023 **Transitioning to Vulkan for Compute**, *Vulkanised '23*, Invited Talk.
- Teaching Vulkan**, *SIGGRAPH '23*, Birds of a Feather Talk, Vulkan: Forging Ahead.
- A Gentle Introduction to Vulkan for Compute Workloads**, *HPG '23*, Invited Talk.
- 2022 **CUDA and Applications to Task-based Programming**, *Eurographics '22*, Tutorial.
- 2021 **CUDA and Applications to Task-based Programming**, *Eurographics '21*, Tutorial.  
**Detailed Geometry for Cloud/Edge Rendering**, *Cloud InnovWave '21*, Invited Talk.

## Miscellaneous Activities

- 2009–2012 Volunteer paramedic with the Austrian Red Cross  
 2008 Mandatory military service in Graz and Klagenfurt (Austria)

## References

- Fernando de la Torre **Carnegie Mellon University**, 211 Smith Hall, 5000 Forbes Av, Pittsburgh, PA 15213, USA, (+1) 4122684706, ftorre@cs.cmu.edu.
- George Drettakis **INRIA, Université Côte d'Azur**, 2004 Route des Lucioles, BP 93 FR-06902 Sophia Antipolis, France, (+33) 492385032, George.Drettakis@inria.fr.
- Michael Wimmer **TU Wien**, Favoritenstraße 9–11, 1040 Wien, Austria, (+43) 15880118687, wimmer@cg.tuwien.ac.at.

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## Full List of Publications Asterisk (\*) denotes equal contribution

- J. Unterguggenberger, L. Lipp, M. Wimmer, M. Steinberger, **B. Kerbl**, and M. Schütz, "Real-time rendering methods with adaptive levels of detail," *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2026.
- B. Kerbl**, "The Impact and Outlook of 3D Gaussian Splatting," in *Frontiers of Science Awards for Math/TCIS/Phys*, 2025.
- J. Huang\*, S. S. Mallick\*, A. Amat, M. R. Olle, A. Mosella-Montoro, **B. Kerbl**, F. V. Carrasco, and F. de la Torre, "Echoes of the Coliseum: Towards 3D Live Streaming of Sports Events," *ACM Transactions on Graphics (SIGGRAPH)*, 2025.
- A. Meuleman, I. Shah, A. Lanvin, **B. Kerbl**, and G. Drettakis, "On-the-fly Reconstruction for Large-Scale Novel View Synthesis from Unposed Images," *ACM Transactions on Graphics (SIGGRAPH)*, 2025.
- A. Ulschmid, K. Krösl, M. Wimmer, and **B. Kerbl**, "Automated Prioritization for Context-Aware Re-rendering in Editing," *SN Comput. Sci. (SNCS)*, 2025.
- X. Tu, L. Radl, M. Steinger, M. Steinberger, **B. Kerbl**, and F. de la Torre, "VRSplat: Fast and Robust Gaussian Splatting for Virtual Reality," *Proc. ACM Comput. Graph. Interact. Tech. (I3D)*, 2025.
- A. Celarek, G. Kopanas, G. Drettakis, M. Wimmer, and **B. Kerbl**, "Does 3D Gaussian Splatting need Accurate Volumetric Rendering?," *Computer Graphics Forum (EG)*, 2025.
- S. Yong, V. N. P. Manivannan, **B. Kerbl**, Z. Wan, S. Stepputtis, K. P. Sycara, and Y. Xie, "OMG: Opacity Matters in Material Modeling with Gaussian Splatting," in *International Conference on Learning Representations (ICLR)*, 2025.
- X. Tu, **B. Kerbl**, and F. de la Torre, "Fast and Robust 3D Gaussian Splatting for Virtual Reality," in *SIGGRAPH Asia 2024 Posters*, 2024.
- S. Mallick\*, R. Goel\*, **B. Kerbl**, F. Vicente Carrasco, M. Steinberger, and F. de La Torre, "Taming 3DGS: High-Quality Radiance Fields with Limited Resources," in *SIGGRAPH Asia 2024 Conference Papers*, 2024.
- C. Wang, K. Wolski, **B. Kerbl**, A. Serrano, M. Bemama, K. Myszkowski, H.-P. Seidel, and T. Leimkühler, "Cinematic Gaussians: Real-Time HDR Radiance Fields with Depth of Field," *Computer Graphics Forum (PG)*, 2024.
- A. Jain, **B. Kerbl**, J. Gain, B. Finley, and G. Cordonnier, "FastFlow: GPU Acceleration of Flow and Depression Routing for Landscape Simulation," *Computer Graphics Forum (PG)*, 2024.
- R. Goel, M. Schütz, P. Narayanan, and **B. Kerbl**, "Real-Time Decompression and Rasterization of Massive Point Clouds," *Proc. ACM Comput. Graph. Interact. Tech. (HPG)*, 2024.
- A. Gauthier, **B. Kerbl**, J. Levallois, R. Faury, J.-M. Thiery, and T. Boubekeur, "MatUp: Repurposing Image Upsamplers for SVBRDFs," *Computer Graphics Forum (EGSR)*, 2024.
- B. Kerbl\***, A. Meuleman\*, G. Kopanas, M. Wimmer, A. Lanvin, and G. Drettakis, "A Hierarchical 3D Gaussian Representation for Real-Time Rendering of Very Large Scenes," *ACM Trans. Graph. (SIGGRAPH)*, 2024.
- L. Radl\*, M. Steiner\*, M. Parger, A. Weinrauch, **B. Kerbl**, and M. Steinberger, "StopThePop: Sorted Gaussian Splatting for View-Consistent Real-time Rendering," *ACM Trans. Graph. (SIGGRAPH)*, 2024.

J. Unterguggenberger, L. Lipp, **B. Kerbl**, M. Wimmer, and M. Schütz, "Fast Rendering of Parametric Objects on Modern GPUs," in *Eurographics Symposium on Parallel Graphics and Visualization (EGPGV)*, 2024.

P. Papantonakis, G. Kopanas, **B. Kerbl**, A. Lanvin, and G. Drettakis, "Reducing the Memory Footprint of 3D Gaussian Splatting," *Proc. ACM Comput. Graph. Interact. Tech. (I3D)*, 2024.

A. Ulschmid, **B. Kerbl**, K. Krösl, and M. Wimmer, "Real-Time Editing of Path-Traced Scenes with Prioritized Re-Rendering," in *Proceedings of the 19th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP)*, 2024.

M. Schütz, **B. Kerbl**, P. Klaus, and M. Wimmer, "GPU-Accelerated LOD Generation for Point Clouds," *Computer Graphics Forum (HPG)*, 2023.

**B. Kerbl\***, G. Kopanas\*, T. Leimkühler, and G. Drettakis, "3D Gaussian Splatting for Real-Time Radiance Field Rendering," *ACM Trans. Graph. (SIGGRAPH)*, 2023.

P. Voglreiter, **B. Kerbl**, A. Weinrauch, J. H. Mueller, M. Steinberger, and D. Schmalstieg, "Trim Regions for Online Computation of From-Region Potentially Visible Sets," *ACM Trans. Graph. (SIGGRAPH)*, July 2023.

C. Jambon, **B. Kerbl**, G. Kopanas, S. Diolatzis, T. Leimkuehler, and G. Drettakis, "NeRFshop: Interactive Editing of Neural Radiance Fields," *Proc. ACM Comput. Graph. Interact. Tech. (I3D)*, 2023.

J. Unterguggenberger, **B. Kerbl**, and M. Wimmer, "Vulkan All the Way: Transitioning to a Modern Low-level Graphics API in Academia," *Computers & Graphics (C&G)*, 2023.

J. Hladky, M. Stengel, N. Vining, **B. Kerbl**, H.-P. Seidel, and M. Steinberger, "Quadstream: A quad-based scene streaming architecture for novel viewpoint reconstruction," *ACM Trans. Graph. (SIGGRAPH Asia)*, Nov 2022.

M. Schütz, **B. Kerbl**, and M. Wimmer, "Software Rasterization of 2 Billion Points in Real Time," *Proc. ACM Comput. Graph. Interact. Tech. (HPG)*, 2022.

J. L. Cardoso, **B. Kerbl**, L. Yang, Y. Uralsky, and M. Wimmer, "Training and predicting visual error for real-time applications," *Proc. ACM Comput. Graph. Interact. Tech. (I3D)*, 2022.

A. Celarek, P. Hermosilla, **B. Kerbl**, T. Ropinski, and M. Wimmer, "Gaussian Mixture Convolution Networks," in *International Conference on Learning Representations (ICLR)*, 2022.

J. Unterguggenberger, **B. Kerbl**, and M. Wimmer, "The Road to Vulkan: Teaching Modern Low-Level APIs in Introductory Graphics Courses," in *Eurographics 2022 - Education Papers (EG Edu.)*, 2022.

**B. Kerbl**, L. Horváth, D. Cornel, and M. Wimmer, "An Improved Triangle Encoding Scheme for Cached Tessellation," in *Eurographics 2022 - Short Papers (EG Short)*, 2022.

**B. Kerbl**, M. Kenzel, M. Winter, and M. Steinberger, "CUDA and Applications to Task-based Programming," in *Eurographics 2022 - Tutorials (EG Tut.)*, 2022.

I. Murturi, C. Jia, **B. Kerbl**, M. Wimmer, S. Dustdar, and C. Tsigkanos, "On Provisioning Procedural Geometry Workloads on Edge Architectures," in *Proceedings of the 17th International Conference on Web Information Systems and Technologies - WEBIST*, 2021.

M. Schütz, **B. Kerbl**, and M. Wimmer, "Rendering Point Clouds with Compute Shaders and Vertex Order Optimization," *Computer Graphics Forum (EGSR)*, 2021.

- J. Unterguggenberger, **B. Kerbl**, J. Pernsteiner, and M. Wimmer, "Conservative Meshlet Bounds for Robust Culling of Skinned Meshes," *Computer Graphics Forum (PG)*, 2021.
- S. Stappen, J. Unterguggenberger, **B. Kerbl**, and M. Wimmer, "Temporally Stable Content-Adaptive and Spatio-Temporal Shading Rate Assignment for Real-Time Applications," in *Pacific Graphics Short Papers, Posters, and Work-in-Progress Papers (PG Short)*, 2021.
- C. Jia, M. Roth, **B. Kerbl**, and M. Wimmer, "View-Dependent Impostors for Architectural Shape Grammars," in *Pacific Graphics Short Papers, Posters, and Work-in-Progress Papers (PG Short)*, 2021.
- J. Unterguggenberger, **B. Kerbl**, M. Steinberger, D. Schmalstieg, and M. Wimmer, "Fast Multi-View Rendering for Real-Time Applications," in *Eurographics Symposium on Parallel Graphics and Visualization (EGPGV)*, 2020.
- W. Tatzgern, B. Mayr, **B. Kerbl**, and M. Steinberger, "Stochastic Substitute Trees for Real-Time Global Illumination," in *Symposium on Interactive 3D Graphics and Games (I3D)*, 2020.
- F. Michelic, M. Kenzel, K. Haubenwallner, **B. Kerbl**, and M. Steinberger, "From Ground to Space: Real-time Rendering of Procedural Planets at Arbitrary Altitudes," *I3D '19 Poster Presentation*, May 2019.
- B. Kerbl**, M. Kenzel, J. H. Mueller, D. Schmalstieg, and M. Steinberger, "The Broker Queue: A Fast, Linearizable FIFO Queue for Fine-Granular Work Distribution on the GPU," in *Proceedings of the International Conference on Supercomputing (ICS)*, 2018.
- B. Kerbl**, M. Kenzel, E. Ivanchenko, D. Schmalstieg, and M. Steinberger, "Revisiting the Vertex Cache: Understanding and Optimizing Vertex Processing on the modern GPU," *Proc. ACM Comput. Graph. Interact. Tech. (HPG)*, Aug. 2018.
- M. Kenzel, **B. Kerbl**, W. Tatzgern, E. Ivanchenko, D. Schmalstieg, and M. Steinberger, "On-the-fly Vertex Reuse for Massively-Parallel Software Geometry Processing," *Proc. ACM Comput. Graph. Interact. Tech. (HPG)*, Aug. 2018.
- M. Kenzel, **B. Kerbl**, D. Schmalstieg, and M. Steinberger, "A High-Performance Software Graphics Pipeline Architecture for the GPU," *ACM Trans. Graph. (SIGGRAPH)*, July 2018.
- B. Kerbl**, J. Müller, M. Kenzel, D. Schmalstieg, and M. Steinberger, "A Scalable Queue for Work Distribution on GPUs," in *Proceedings of the 23rd ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPOPP)*, 2018.
- B. Kerbl**, M. Kenzel, D. Schmalstieg, and M. Steinberger, "Effective Static Bin Patterns for Sort-middle Rendering," in *Proceedings of High Performance Graphics (HPG)*, 2017.
- B. Kerbl**, M. Kenzel, D. Schmalstieg, H.-P. Seidel, and M. Steinberger, "Hierarchical Bucket Queuing for Fine-Grained Priority Scheduling on the GPU," *Computer Graphics Forum (CGF)*, 2016.
- P. Mohr, **B. Kerbl**, M. Donoser, D. Schmalstieg, and D. Kalkofen, "Retargeting Technical Documentation to Augmented Reality," in *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI)*, 2015.
- B. Kerbl**, D. Kalkofen, M. Steinberger, and D. Schmalstieg, "Interactive Disassembly Planning for Complex Objects," *Computer Graphics Forum (EG)*, 2015.
- M. Steinberger, M. Kenzel, P. Boechat, **B. Kerbl**, M. Dokter, and D. Schmalstieg, "Whippletree: Task-based Scheduling of Dynamic Workloads on the GPU," *ACM Trans. Graph. (SIGGRAPH Asia)*, Nov. 2014.

**B. Kerbl**, P. Voglreiter, R. Khlebnikov, D. Schmalstieg, D. Seider, M. Moche, P. Stiegler, R. Portugaller, and B. Kainz, "Intervention Planning of Hepatocellular Carcinoma Radio-Frequency Ablations," in *Clinical Image-Based Procedures. From Planning to Intervention (MICCAI CLIP)*, Lecture Notes in Computer Science, 2013.

M. Steinberger, B. Kainz, **B. Kerbl**, S. Hauswiesner, M. Kenzel, and D. Schmalstieg, "Softshell: Dynamic Scheduling on GPUs," *ACM Trans. Graph. (SIGGRAPH Asia)*, 2012.

Copenhagen, Denmark, January 3, 2026