Steffen Frey

Date of Birth 22.11.1982

Current Postdoctoral Researcher

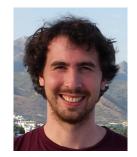
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https://goo.gl/u5R6gT (Google Scholar)



Academic Career

since 2014 **Postdoctoral Researcher**, *VISUS*. **Visionary Postdoc, SimTech Cluster of Excellence**.

2008 – 2014 **Dr. rer. nat.**, *VISUS*, date of defense: 07.11.2014, Supervisor: Prof. Thomas Ertl "Strategies for Efficient Parallel Visualization" (summa cum laude).

Graduate School Simulation Technology, SimTech Cluster of Excellence.

- 2010 & 12 Visiting Researcher, University of California, Davis, USA, Prof. Kwan-Liu Ma, VIDI Labs.
- 2002 2008 **Dipl.-Inf.**, *University of Stuttgart*, Computer Science, thesis "GPU-based Cone Beam Reconstruction of Large CT Datasets" in collaboration with Daimler AG.
- 2005 2006 **Study Abroad**, *University of Kansas*, *Lawrence*, *USA*, with Science Scholarship.

List of Publications (talks at conference as noted; fully peer-reviewed, unless noted otherwise)

- [1] Bruder, V., Kurzhals, K., **Frey, S.**, Weiskopf, D., Ertl, T., "Space-time volume visualization of gaze and stimulus," *ACM Symposium on Eye Tracking Research & Applications (ETRA)*, 12:1–12:9, 2019.
- [2] Bruder, V., Müller, C., **Frey, S.**, Ertl, T., "On evaluating runtime performance of interactive visualizations," *IEEE Transactions on Visualization and Computer Graphics*, pp. 1–1, 2019.
- [3] Bruder, V., Schulz, C., Bauer, R., **Frey, S.**, Weiskopf, D., Ertl, T., "Voronoi-based foveated volume rendering," *EuroVis Short Papers*, pp. 1–1, 2019.
- [4] Rau, T., Gralka, P., Fernandes, O., Reina, G., **Frey, S.**, Ertl, T., "The impact of work distribution on in situ visualization: A case study," *In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV)*, 12:1–12:9, 2019.
- [5] Tabiai, I., Tkachev, G., Diehl, P., **Frey, S.**, Ertl, T., Therriault, D., Lévesque, M., "Hybrid image processing approach for autonomous crack area detection and tracking using local digital image correlation results applied to single-fiber interfacial debonding," *Engineering in Fracture Mechanics*, vol. 216, p. 106 485, 2019.
- [6] Bruder, V., Hlawatsch, M., **Frey, S.**, Burch, M., Weiskopf, D., Ertl, T., "Volume-Based Large Dynamic Graph Analytics (Best Paper)," in *22nd International Conference on Information Visualisation*, vol. 216, 2018, p. 106 485.
- [7] **Frey, S.**, "Spatio-Temporal Contours from Deep Volume Raycasting," *Comput. Graph. Forum* (*EuroVis 2018*), vol. 216, p. 106 485, with talk, 2018.

- [8] Frieß, F., Landwehr, M., Bruder, V., **Frey, S.**, Ertl, T., "Adaptive encoder settings for interactive remote visualisation on high-resolution displays," *Symposium on Large Data Analysis and Visualization (LDAV)*, vol. 216, p. 106 485, 2018.
- [9] Hui, Z., Frey, S., Steeb, H., Uribe, D., Ertl, T., Wang, W., "Visualization of bubble formation in porous media," *IEEE Trans. Visual. Comput. Graphics (SciVis 2018)*, vol. 216, p. 106 485, 2018.
- [10] Bruder, V., **Frey, S.**, Ertl, T., "Prediction-based load balancing and resolution tuning for interactive volume raycasting," *Visual Informatics*, vol. 216, p. 106 485, 2017.
- [11] Bußler, M., Diehl, P., Pflüger, D., **Frey, S.**, Sadlo, F., Ertl, T., Schweitzer, M. A., "Visualization of fracture progression in peridynamics," *Computers and Graphics*, vol. 216, p. 106 485, 2017.
- [12] Diehl, P., Bußler, M., Pflüger, D., **Frey, S.**, Ertl, T., Sadlo, F., Schweitzer, M. A., "Extraction of fragments and waves after impact damage in particle-based simulations," in *Meshfree Methods for Partial Differential Equations VIII*, M. Griebel and M. A. Schweitzer, Eds. Cham: Springer International Publishing, 2017, vol. 216, pp. 17–34.
- [13] Fernandes, O., **Frey, S.**, Ertl, T., "Transportation-based visualization of energy conversion," in *Meshfree Methods for Partial Differential Equations VIII*, M. Griebel and M. A. Schweitzer, Eds., vol. 216, Cham: Springer, 2017, pp. 17–34.
- [14] **Frey, S.**, Ertl, T., "Fast flow-based distance quantification and interpolation for high-resolution density distributions," in *EG 2017 Short Papers*, M. Griebel and M. A. Schweitzer, Eds., vol. 216, Cham: Springer, with talk, 2017, pp. 17–34.
- [15] Scharnowski, K., **Frey, S.**, Raffin, B., Ertl, T., "Spline-based decomposition of streamed particle trajectories for efficient transfer and analysis," in *EG 2017 Short Papers*, M. Griebel and M. A. Schweitzer, Eds., vol. 216, Cham: Springer, with talk, 2017, pp. 17–34.
- [16] Tkachev, G., **Frey, S.**, Müller, C., Bruder, V., Ertl, T., "Prediction of Distributed Volume Visualization Performance to Support Render Hardware Acquisition," in *Eurographics Symposium on Parallel Graphics and Visualization*, M. Griebel and M. A. Schweitzer, Eds., vol. 216, Cham: The Eurographics Association, with talk, 2017, pp. 17–34.
- [17] **Frey, S.**, Ertl, T., "Progressive direct volume-to-volume transformation," *IEEE Trans. Visual. Comput. Graphics (SciVis 2016)*, vol. 23, no. 1, M. Griebel and M. A. Schweitzer, Eds., pp. 921–930, with talk, 2017.
- [18] **Frey, S.**, "Sampling and estimation of pairwise similarity in spatio-temporal data based on neural networks," *Informatics*, vol. 4, no. 27, M. Griebel and M. A. Schweitzer, Eds., pp. 921–930, with talk, 2017.
- [19] Bruder, V., **Frey, S.**, Ertl, T., "Real-time performance prediction and tuning for interactive volume raycasting," in *SIGGRAPH ASIA 2016 Symposium on Visualization*, M. Griebel and M. A. Schweitzer, Eds., ser. SA '16, vol. 23, Macau: ACM, with talk, 2016, 7:1–7:8.
- [20] Fernandes, O., **Frey, S.**, Ertl, T., "Interpolation-based extraction of representative isosurfaces," in *Lecture Notes in Computer Science*, M. Griebel and M. A. Schweitzer, Eds., ser. SA '16, vol. 23, Macau: ACM, with talk, 2016, 7:1–7:8.
- [21] **Frey, S.**, Ertl, T., "Auto-tuning intermediate representations for in situ visualization," in 2016 New York Scientific Data Summit (NYSDS), M. Griebel and M. A. Schweitzer, Eds., ser. SA '16, vol. 23, Macau: ACM, with talk, abstract review only, 2016, pp. 1–10.
- [22] **Frey, S.**, Ertl, T., "Flow-based temporal selection for interactive volume visualization," *Comput. Graph. Forum*, SA '16, vol. 23, no. 1, M. Griebel and M. A. Schweitzer, Eds., pp. 1–10, with talk, abstract review only, 2016.
- [23] Schulz, C., Nocaj, A., El-Assady, M., Frey, S., Hlawatsch, M., Hund, M., Karch, G., Netzel, R., Schätzle, C., Butt, M., Keim, D. A., Ertl, T., Brandes, U., Weiskopf, D., "Generative

- data models for validation and evaluation of visualization techniques," in *Proceedings of the Sixth Workshop on Beyond Time and Errors on Novel Evaluation Methods for Visualization*, M. Griebel and M. A. Schweitzer, Eds., ser. BELIV '16, vol. 23, Baltimore, MD, USA: ACM, with talk, abstract review only, 2016, pp. 112–124.
- [24] Blom, D. S., Ertl, T., Fernandes, O., **Frey, S.**, Klimach, H., Krupp, V., Mehl, M., Roller, S., Sternel, D. C., Uekermann, B., Winter, T., Van Zuijlen, A. H., "Partitioned fluid-structure-acoustics interaction on distributed data," in *Software for Exascale Computing SPPEXA 2013-2015*, Springer, Ed., ser. BELIV '16, vol. 113, Baltimore, MD, USA: Springer International Publishing, no peer review, 2016, Pages267–291.
- [25] Fernandes, O., Blom, D. S., **Frey, S.**, Van Zuijlen, S. H., Bijl, H., Ertl, T., "On in-situ visualization for strongly coupled partitioned fluid-structure interaction," in *VI International Conference on Computational Methods for Coupled Problems in Science and Engineering*, Springer, Ed., ser. BELIV '16, vol. 113, Baltimore, MD, USA: Springer International Publishing, no peer review, 2015, Pages267–291.
- [26] **Frey, S.**, Sadlo, F., Ertl, T., "Balanced sampling and compression for remote visualization," in *ACM SIGGRAPH Asia 2015 Symposium on Visualization in High Performance Computing*, Springer, Ed., ser. BELIV '16, vol. 113, Baltimore, MD, USA: Springer International Publishing, with talk, 2015, Pages267–291.
- [27] Panagiotidis, A., **Frey, S.**, Ertl, T., "Exploratory Performance Analysis and Tuning of Parallel Interactive Volume Visualization on Large Displays," in *EuroVis Short Papers*, E. Bertini, J. Kennedy, and E. Puppo, Eds., ser. BELIV '16, vol. 113, Baltimore, MD, USA: The Eurographics Association, with talk, 2015, Pages267–291.
- [28] Fernandes, O., **Frey, S.**, Sadlo, F., Ertl, T., "Space-time volumetric depth images for in-situ visualization," in *IEEE Symposium on Large Data Analysis and Visualization*, E. Bertini, J. Kennedy, and E. Puppo, Eds., ser. BELIV '16, vol. 113, Baltimore, MD, USA: The Eurographics Association, with talk, 2014, pp. 59–65.
- [29] **Frey, S.**, Sadlo, F., Ma, K., Ertl, T., "Interactive progressive visualization with space-time error control," *IEEE Trans. Visual. Comput. Graphics (SciVis 2014)*, BELIV '16, vol. 20, no. 12, E. Bertini, J. Kennedy, and E. Puppo, Eds., pp. 2397–2406, with talk, 2014.
- [30] **Frey, S.**, Sadlo, F., Ertl, T., "Explorable volumetric depth images from raycasting," in *Conference on Graphics, Patterns and Images*, E. Bertini, J. Kennedy, and E. Puppo, Eds., ser. BELIV '16, vol. 20, Baltimore, MD, USA: The Eurographics Association, with talk, 2013, pp. 123–130.
- [31] **Frey, S.**, Sadlo, F., Ertl, T., "Mesh Generation From Layered Depth Images Using Isosurface Raycasting," in *ISVC '13: Proceedings of the 9th International Symposium on Advances in Visual Computing*, E. Bertini, J. Kennedy, and E. Puppo, Eds., ser. BELIV '16, vol. 20, Rethymnon, Crete, Greece: Springer-Verlag, with talk, 2013, pp. 373–383.
- [32] **Frey, S.**, Reina, G., Ertl, T., "Simt microscheduling: Reducing thread stalling in divergent iterative algorithms," in *IEEE Euromicro International Conference on Parallel, Distributed and Network-based Processing*, E. Bertini, J. Kennedy, and E. Puppo, Eds., ser. BELIV '16, vol. 20, Rethymnon, Crete, Greece: Springer-Verlag, with talk, 2012, pp. 399–406.
- [33] **Frey, S.**, Sadlo, F., Ertl, T., "Visualization of temporal similarity in field data," *IEEE Trans. Visual. Comput. Graphics (SciVis 2012)*, BELIV '16, vol. 18, no. 12, E. Bertini, J. Kennedy, and E. Puppo, Eds., pp. 2023–2032, with talk, 2012.
- [34] Ament, M., **Frey, S.**, Sadlo, F., Ertl, T., Weiskopf, D., "Gpu-based two-dimensional flow simulation steering using coherent structures," in *Proceedings of the Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, vol. 18, Stirlingshire, United Kingdom: Civil-Comp Press, with talk, 2011, pp. 2023–2032.

- [35] **Frey, S.**, Ertl, T., "Load balancing utilizing data redundancy in distributed volume rendering," in *Eurographics Symposium on Parallel Graphics and Visualization*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, vol. 18, Stirlingshire, United Kingdom: Civil-Comp Press, with talk, 2011, pp. 51–60.
- [36] **Frey, S.**, Schlömer, T., Grottel, S., Dachsbacher, C., Deussen, O., Ertl, T., "Loose capacity-constrained representatives for the qualitative visual analysis in molecular dynamics," in *IEEE Pacific Visualization Symposium*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, vol. 18, Stirlingshire, United Kingdom: Civil-Comp Press, with talk, 2011, pp. 51–58.
- [37] Panagiotidis, A., Kauker, D., **Frey, S.**, Ertl, T., "DIANA: A Device Abstraction Framework for Parallel Computations," in *Proceedings of the Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, vol. 18, Stirlingshire, United Kingdom: Civil-Comp Press, with talk, 2011, pp. 51–58.
- [38] **Frey, S.**, Ertl, T., "PaTraCo: A Framework Enabling the Transparent and Efficient Programming of Heterogeneous Compute Networks," in *EGPGV, Norrköping, Sweden*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, vol. 18, Stirlingshire, United Kingdom: Eurographics Association, with talk, 2010, pp. 131–140.
- [39] Kauker, D., Sanftmann, H., **Frey, S.**, Ertl, T., "Memory Saving Fourier Transform on GPUs," in *International Conference on Computer and Information Technology*, P. Iványi and B. H. V. Topping, Eds., ser. BELIV '16, paper 18, IEEE, vol. 18, Stirlingshire, United Kingdom: Eurographics Association, with talk, 2010, pp. 67–75.
- [40] Üffinger, M., **Frey, S.**, Ertl, T., "Interactive high-quality visualization of higher-order finite elements," *Comput. Graphics Forum (Eurographics 2010)*, BELIV '16, vol. 29, no. 2, P. Iványi and B. H. V. Topping, Eds., pp. 337–346, with talk, 2010, paper 18.
- [41] **Frey, S.**, Ertl, T., "Accelerating Raycasting Utilizing Volume Segmentation of Industrial CT Data," in *EG UK Theory and Practice of Computer Graphics, Cardiff University, United Kingdom, 2009.*, W. Tang and J. P. Collomosse, Eds., ser. BELIV '16, paper 18, IEEE, vol. 29, Stirlingshire, United Kingdom: Eurographics Association, with talk, 2009, pp. 33–40.
- [42] **Frey, S.**, Müller, C., Strengert, M., Ertl, T., "Concurrent ct reconstruction and visual analysis using hybrid multi-resolution raycasting in a cluster environment," in *Proceedings of the 5th International Symposium on Advances in Visual Computing: Part I*, W. Tang and J. P. Collomosse, Eds., ser. ISVC '09, paper 18, IEEE, vol. 29, Las Vegas, Nevada: Springer-Verlag, with talk, 2009, pp. 357–366.
- [43] Müller, C., **Frey, S.**, Strengert, M., Dachsbacher, C., Ertl, T., "A compute unified system architecture for graphics clusters incorporating data locality," *IEEE Trans. Visual. Comput. Graphics*, ISVC '09, vol. 15, no. 4, W. Tang and J. P. Collomosse, Eds., pp. 605–617, with talk, 2009, paper 18.

Acquisition of Research Funding

- 2019 Machine Learning for Data-driven Visualization (ML4Vis), Principal Investigator, funded project within the SimTech Cluster of Excellence.
 - **Quantifying Visual Computing Systems**, *Principal Investigator*, project A02 in Transregional Collaborative Research Center 161 (Quantitative Methods for Visual Computing), 2nd funding period.
- 2018 Visualization of Multi-field Processes in Porous Media, Principal Investigator, project D01 in Collaborative Research Center 1313 (Interface-Driven Multi-Field Processes in Porous Media – Flow, Transport and Deformation).

- Co-Speaker of task force "Software and data"
- **Data-Integrated Simulation Science (EXC 2075)**, *Participating Researcher*, proposal for a DFG Cluster of Excellence, PN6: Machine Learning for Simulation.
- 2017 **Model-based Visual Analysis of Large Spatio-Temporal Data**, *Principal Investigator*, funded project within the SimTech Cluster of Excellence.
- 2015 **Quantifying Visual Computing Systems**, *Co-Author*, project A02 in Transregional Collaborative Research Center 161 (Quantitative Methods for Visual Computing).
- 2011 MCSimVis: Many Core Simulation and Visualization, involvement in proposal, BMBF Project, with industry partners INTES GmbH and science+computing AG.

Invited Presentations, Articles, and Posters

- 2018 **Dagstuhl Seminar (In Situ Visualization for Computational Science)**, Reduced Representation Tradeoffs, Dynamic Prediction and Adjustment, Talk.
- 2017 **NVIDIA GPU Technology Conference (GTC)**, Fast Flow-based Distance Quantification and Interpolation for High-Resolution Density Distributions, Talk.
- 2017 **ChinaVis (China-Germany Visualization Workshop)**, High Performance Visualization of Volume and Time Series Data, Talk.
- 2017 EuroVis, Power Efficiency of Volume Raycasting on Mobile Devices, Poster.
- 2017 **Eurographics**, Flow-Based Temporal Selection for Interactive Volume Visualization, Invited Talk of CGF paper.
- 2015 **ISC** Workshop on Software Frameworks for Scalable Scientific Simulations, Reduced Representations for In-Situ Visualization, Talk.
- 2014 GI BDVC, Quantifying Visual Computing Systems, Talk.
- 2013 **ParCo**, *Interaction and HPC: Multi-Scale / Multi-Physics Applications*, Parallel Interactive Visualization: Strategies and Examples, Talk.
- 2012 **High Performance Visualization: Enabling Extreme-Scale Scientific Insight**, *GPU-Accelerated Visualization*, Book Chapter.
- 2009 **NVIDIA GPU Technology Conference (GTC)**, Memory Saving Fourier Transform on GPUs, Talk.
- 2009 VIS, CUDA-Accelerated Continuous 2-D Scatterplots, Poster.

Supervised PhD Students (together with Prof. Ertl)

- since 2018 Moritz Heinemann, SFB TRR 75, "Interactive Visualization of Droplet Dynamics".
- since 2018 Stefan Scheller, SFB 1313, "Visualization of Multi-field Processes in Porous Media".
- since 2017 **Gleb Tkachev**, SimTech Cluster of Excellence, "Model-based Visual Analysis of Large Spatio-Temporal Data".
- since 2016 Valentin Bruder, SFB TRR 161, "Quantifying Visual Computing Systems".

Supervised Bachelor and Master Theses

- 2019 Visual Analysis of Experimental Two-Phase Flow in Porous Media Ensemble Data, Cihan Erol. Master.
- 2018 **Generating field data with GANs for evaluation of visualization performance**, *Elias Fauser*, Master.

Volume data interpolation using neural networks, Hanna Bader, Bachelor.

Foveated Volume Rendering, Ruben Bauer, Bachelor.

Machine Learning-based Analysis of Droplet Behavior in Multiphase Flow Simulations, *Moritz Heinemann*, Master.

- 2017/18 Analysis of Spatiotemporal Ensemble Data using Machine Learning, Stefan Scheller, Master.
 - **Encoding Quality Prediction for Interactive Remote Visualization**, *Mathias Landwehr*, Master.
 - 2017 Investigation of Volume Rendering Performance through Active Learning and Visual Analysis, *Stephan Roth*, Master.
 - Investigation of State-of-the-Art Compression Algorithms for Densely Recorded Light Fields, Clemens Sigel, Bachelor.
- 2016/17 Investigation and prediction of distributed volume rendering performance, Gleb Tkachev, Master.
 - Progressive Sparse Coding for In Situ Volume Visualisation, Gratian Berian, Master.
- 2015/16 Performance Quantification of Volume Visualization, Valentin Bruder, Master.

 Real-time Ray Tracing of Volumetric Data, Marcus Richter, Bachelor.
- 2014/15 Dynamic Acceleration Structures for the Visualization of Time-Dependent Volume Data on the GPU, Hajun Jang, Diplom.
 - 2014 Adaptive Frameless Raycasting for Interactive Volume Visualization, Constantin Weisser, Bachelor.
- 2012/13 Extraction of High Quality Isosurfaces from Large Volume Data, Thomas Mezger, Diplom.
 - 2010 Distributed Raytracing on GPU Clusters, Jochen Puff, Diplom.
- 2009/2010 Algorithm Design and Algorithmic-Level Optimization of Video / Image Algorithm using an Abstract Common Interface for NVIDIA CUDA and Intel Larrabee Platforms, Daniel Kauker, Diplom, in collaboration with Sony Deutschland.
 - Parallel Computation of Volumetric Illumination of Astrophysical Nebulae on GPU Clusters, *Manuel Moser*, Diplom.

Lectures. Courses and Seminars

- 2019/20 Advanced Seminar, Advanced Rendering, Master (2 SWS).
 - 2019 Seminar, Realistische Echtzeitgrafik, Bachelor (2 SWS).
- 2018/19 Advanced Seminar, Particle Visualization, Master (2 SWS).
- 2018 & 19 Lecture, Simulation Technology B (interdisciplinary SimTech lecture, together with Jun.-Prof. Hansen, Jun.-Prof. Fyta & Prof. Mehl), Master (4 SWS).
 - 2015–19 **Lecture**, Scientific Visualization (together with Prof. Ertl), Master (4 SWS).
 - 2017/18 Advanced Seminar, Multifield Visualization, Master (2 SWS).
 SimTech Seminar, Multifield Problems, Master / Ph.D (2 SWS).
 - 2016/17 Advanced Seminar, High-Performance Visualization, Master (2 SWS).
 - 2015/16 Advanced Seminar, Virtual Reality, Master (2 SWS).
 - 2015/16 **Lecture**, Programming for Media Computer Science (together with Dr. Reina, Dr. Krone, and Dr. Dingler), Bachelor (4 SWS).

- 2015 Advanced Seminar, SimTech, Master / Ph.D (2 SWS).
- 2012/13 Advanced Seminar, Advanced Visualization Techniques, Master (2 SWS).
- 2012/13 Advanced Seminar, Volume Rendering, Master (2 SWS).
 - 2011 **Seminar**, Interactive Visualization Techniques, Master (2 SWS).
 - 2010 Advanced Seminar, Volume Rendering, Master (2 SWS).
- 2009/10 Lecture (Exercises), Visual Computing, Master (4 SWS).
 - 2009 **Lecture (Exercises)**, *Image Synthesis/Rendering*, Master (4 SWS).
- 2008/09 Lecture (Exercises), Visual Computing, Master (4 SWS).
- 2008/09 Practical Course, Graphics and GPU programming lab, Master (4 SWS).

Professional Service

Conference Organization

- 2020 **EG Symposium on Parallel Graphics and Visualization (EGPGV)**, Symposium Chair.
- 2019 EG Symposium on Parallel Graphics and Visualization (EGPGV), Program Co-Chair.
 ISC Workshop on In Situ Visualization (WOIV), Organizer.
- 2018 International Conference on Quantification in Visual Computing, Poster Chair.
- 2016–17 ISC Workshop on In Situ Visualization (WOIV), Organizer.

Program Committee

2020 EuroVis, Short Papers Track.

Visualization Meets AI (VisAI), workshop held in conjunction with PacificVis.

Workshop on Big Data Visual Exploration and Analytics (BigVis 2020).

Euromicro Conference on Software Engineering and Advanced Applications (SEAAA), Special Track on Al-Enabled Software Development and Operations.

2019 International Symposium on Visual Information Communication and Interaction (VINCI).

Conference on Graphics, Patterns, and Images (SIBGRAPI).

VIS. SciVIS track.

Euromicro Conference on Software Engineering and Advanced Applications (SEAAA), Special Track on Software and Big Data Analytics.

International Symposium on Vision, Modeling, and Visualization (VMV).

In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV). EuroVis, *Short Papers Track*.

International Symposium on Visual Computing (ISVC).

Symposium on Large Data Analysis and Visualization (LDAV).

2018 VIS, SciVIS track.

Euromicro Conference on Software Engineering and Advanced Applications (SEAAA), Special Track on Software and Big Data Analytics.

International Symposium on Vision, Modeling, and Visualization (VMV).

In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV).

EuroVis, Short Papers Track.

International Symposium on Visual Computing (ISVC).

Symposium on Large Data Analysis and Visualization (LDAV).

Supercomputing (SC), Data Analytics, Visualization & Storage track.

Supercomputing Asia.

ISC Workshop on In Situ Visualization (WOIV).

International Supercomputing Conference (ISC).

2017 **EuroVis**, Short Papers Track.

International Symposium on Visual Computing (ISVC).

Symposium on Large Data Analysis and Visualization (LDAV).

International Supercomputing Conference (ISC).

SIGGRAPH ASIA Symposium on Visualization.

2016 International Symposium on Visual Computing (ISVC).
Symposium on Large Data Analysis and Visualization (LDAV).
SIGGRAPH ASIA Symposium on Visualization.