

**SCI Institute
University of Utah**

Papers with **Bold** titles represent co-authors supported in part by the **Intel Graphics and Visualization Institute**.

IEEE VIS 2020 Papers:

Direct Volume Rendering with Nonparametric Models of Uncertainty.

Tushar M. Athawale, Bo Ma, Elham Sakhaee, Chris R. Johnson, and Alireza Entezari

Data-Driven Space-Filling Curves. Liang Zhou, Chris R. Johnson, Daniel Weiskopf.

A Virtual Frame Buffer Abstraction for Parallel Rendering of Large Tiled Display Walls.

Mengjiao Han, Ingo Wald, Will Usher, Nate Morrical, Aaron Knoll, Valerio Pascucci, and Chris R. Johnson (Short Paper).

Uncertainty Visualization of 2D Morse Complex Ensembles using Statistical Summary Maps. Tushar M. Athawale, Dan Maljovec, Lin Yan, Chris R. Johnson, Valerio Pascucci, and Bei Wang (TVCG Paper).

Improving the Usability of Virtual Reality Neuron Tracing with Topological Elements. Torin McDonald, Will Usher, Nate Morrical, Attila Gyulassy, Steve Petruzza, Frederick Federer, Alessandra Angelucci, and Valerio Pascucci.

Ray Tracing Structured AMR Data Using ExaBricks. Ingo Wald, Stefan Zellmann, Will Usher, Nate Morrical, Ulrich Lang, and Valerio Pascucci.

Efficient and Flexible Hierarchical Data Layouts for a Unified Encoding of Scalar Field Precision and Resolution. Duong Hoang, Brian Summa, Harsh Bhatia, Peter Lindstrom, Pavol Klacansky, Will Usher, Peer-Timo Bremer and Valerio Pascucci.

Interactive Visualization of Atmospheric Effects for Celestial Bodies.

Jonathas Costa, Alexander Bock, Carter Emmart, Charles Hansen, Anders Ynnerman, and Claudio Silva.

Insights From Experiments With Rigor in an EvoBio Design Study. Jen Rogers, Austin H Patton, Luke Harmon, Alexander Lex, and Miriah Meyer.
(InfoVis Paper)

HyperLabels---Browsing of Dense and Hierarchical Molecular 3D Models Kouřil, D., Isenberg, T., Kozlíková, B., Meyer, M., Gröller, M.E. and Viola, I., 2020, (TVCG Paper).

Ttrack: A Library for Provenance Tracking in Web-Based Visualizations. Zach T. Cutler, Kiran Gadhav, and Alexander Lex (Short Paper).

LDAV Paper:

Interactive Visualization of Terascale Data in the Browser: Fact or Fiction? Will Usher and Valerio Pascucci.

IEEE VIS 2020 Scientific Visualization Contest Finalist:

Statistical Rendering for Visualization of Red Sea Eddy Simulation Data
Tushar M. Athawale, Alireza Entezari, Bei Wang, and Chris R. Johnson

BELIV Workshop Paper:

Extending Recommendations for Creative Visualization-Opportunities Workshops,
Christian Knoll, Asil Çetin, Torsten Moeller, and Miriah Meyer.

Workshop: Visualization in Astrophysics: Developing New Methods,
Discovering Our Universe, Educating the Earth

<http://www.sci.utah.edu/~beiwang/visastro2020/index.html>

Organizers: Bei Wang, Juna Kollmeier, Lauren Anderson.

**Challenges in the Visualization of Bioelectric Fields for Cardiac
and Neural Research**

<http://www.sci.utah.edu/~beiwang/visspotlight2020/index.html>

Organizers: Bei Wang, Rob MacLeod, Wilson Good.

Panel: Why should I stay in Academia? Bridging Generations of
Researchers in Visualization. Panelists: Silvia Miksch, Johanna Beyer, Chuck Hansen,
Jan Reininghaus, Bei Wang, Jack van Wijk