

History Best Paper Awards

2023

Best Papers

Xingyu Lan, Yanqiu Wu, Nan Cao **Affective Visualization Design: Leveraging the Emotional Impact of Data**

Max Piochowiak, Carsten Dachsbacher **Fast Compressed Segmentation Volumes for Scientific Visualization**

Fumeng Yang, Mandi Cai, Chloe Rose Mortenson, Hoda Fakhari, Ayse Deniz Lokmanoglu, Jessica Hullman, Steven Franconeri, Nicholas Diakopoulos, Erik Nisbet, Matthew Kay **Swaying the Public? Impacts of Election Forecast Visualizations on Emotion, Trust, and Intention in the 2022 U.S. Midterms**

Anna Offenwanger, Matthew Brehmer, Fanny Chevalier, Theophanis Tsandilas **TimeSplines: Sketch-based Authoring of Flexible and Idiosyncratic Timelines**

Egzon Miftari, Daniel Durstewitz, Filip Sadlo **Visualization of Discontinuous Vector Field Topology**

Peter Rautek, Xingdi Zhang, Bernhard Woschizka, Thomas Theussl, Markus Hadwiger **Vortex Lens: Interactive Vortex Core Line Extraction using Observed Line Integral Convolution**

Best Paper Honorable Mentions

S. Sandra Bae, Takanori Fujiwara, Anders Ynnerman, Ellen Yi-Luen Do, Michael L Rivera, Danielle Albers Szafir **A Computational Design Process to Fabricate Sensing Network Physicalizations**

Sonia Castelo Quispe, João Rulff, Erin McGowan, Bea Steers, Guande Wu, Shaoyu Chen, Iran Roman, Roque Lopez, Ethan Brewer, Chen Zhao, Jing Qian, Kyunghyun Cho, He He, Qi Sun, Huy T. Vo, Juan Pablo Bello, Michael Krone, Claudio Silva **ARGUS: Visualization of AI-assisted Task Guidance in AR**

Dominik Moritz, Lace M. Padilla, Francis Nguyen, Steven L Franconeri **Average Estimates in Line Graphs are Biased Towards Areas of Higher Variability**

Hyeon Jeon, Ghulam Jilani Quadri, Hyunwook Lee, Paul Rosen, Danielle Albers Szafir, Jinwook Seo **CLAMS: Cluster Ambiguity Measure for Estimating Perceptual Variability in Visual Clustering**

Chenglong Wang, John R. Thompson, Bongshin Lee **Data Formulator: AI-powered Concept-driven Visualization Authoring**

Will Epperson, Vaishnavi Gorantla, Dominik Moritz, Adam Perer **Dead or Alive: Continuous Data Profiling for Interactive Data Science**

Dawar Khan, Ciril Bohak, Ivan Viola **Dr. KID: Direct Remeshing and K-set Isometric Decomposition for Scalable Physicalization of Organic Shapes**

Helen Ai He, Jagoda Walny, Sonja Thoma, Sheelagh Carpendale, Wesley Willett
Enthusiastic and Grounded, Avoidant and Cautious: Understanding Public Receptivity to Data and Visualizations

Adeel Zafar, Di Yang, Guoning Chen **Extract and Characterize Hairpin Vortices in Turbulent Flows**

Yifang Wang, Yifan Qian, Xiaoyu Qi, Nan Cao, Dashun Wang **InnovationInsights: A Visual Analytics Approach for Understanding the Dual Frontiers between Science and Technology**

Alexander Vieth, Thomas Kroes, Julian Thijssen, Baldur van Lew, Jeroen Eggermont, Soumyadeep Basu, Elmar Eisemann, Anna Vilanova, Thomas Höllt, Boudeijn Lelieveldt **ManiVault: A Flexible and Extensible Visual Analytics Framework for High-Dimensional Data**

Florian Wetzel, Mathieu Pont, Julien Tierny, Christoph Garth **Merge Tree Geodesics and Barycenters with Path Mappings**

Carolina Veiga Ferreira de Souza, Suzanna Maria Bonnet, Daniel de Oliveira, Marcio Cataldi, Fabio Miranda, Marcos Lage **ProWis: A Visual Approach for Building, Managing, and Analyzing Weather Simulation Ensembles at Runtime**

Best Short Paper

Aidan Slingsby, Richard Reeve, Claire Harris **Gridded Glyphmaps for Supporting Spatial COVID-19 Modelling**

Short Paper Honorable Mentions

Junran Yang, Péter Ferenc Gyarmati, Zehua Zeng, Dominik Moritz **Draco 2: An Extensible Platform to Model Visualization Design**

Yiren Ding, Lane Harrison **Data in the Wind: Evaluating Multiple-Encoding Design for Particle Motion Visualizations**

Best Poster

Alec Fisher Helbling, Duen Horng Chau **ManimML: Communicating Machine Learning Architectures with Animation**

Best Poster Honorable Mentions

Yi Guo, Nan Cao, Xiaoyu Qi, Haoyang Li, Danqing Shi, Jing Zhang, Qing Chen, Daniel Weiskopf **Enhancing Natural Language-Based Data Exploration with Analysis Pipeline Illustration**

Leona M Holloway, Peter Cracknell, Kate Stephens, Melissa Fanshawe, Samuel Reinders, Kim Marriott, Matthew Butler **Refreshable Tactile Displays for Accessible Data Visualisation**

2022

Best Papers

Elsie Lee-Robbins, Eytan Adar **Affective Learning Objectives for Communicative Visualizations**

Lace Padilla, Racquel Fygenson, Spencer C. Castro, Enrico Bertini **Multiple Forecast Visualizations (MFVs): Trade-offs in Trust and Performance in Multiple COVID-19 Forecast Visualizations**

David Hägele, Tim Krake, Daniel Weiskopf **Uncertainty-Aware Multidimensional Scaling**

Best Paper Honorable Mentions

Ying Zhao, Luhao Ge, Huixuan Xie, Genghuai Bai, Zhao Zhang, Qiang Wei, Yun Lin, Yuchao Liu, Fangfang Zhou **ASTF: Visual Abstractions of Time-Varying Patterns in Radio**

Signals

Yang Shi, Tian Gao, Xiaohan Jiao, Nan Cao **Breaking the Fourth Wall of Data Stories through Interaction**

Nicole Sultanum, Farooq Naeem, Michael Brudno, Fanny Chevalier **ChartWalk: Navigating large collections of text notes in electronic health records for clinical chart review**

Benjamin Bach, Euan Freeman, Alfie Abdul-Rahman, Cagatay Turkay, Saiful Khan, Yulei Fan, Min Chen **Dashboard Design Patterns**

Abhraneel Sarma, Shunan Guo, Jane Hoffswell, Ryan Rossi, Fan Du, Eunyee Koh, Matthew Kay **Evaluating the Use of Uncertainty Visualisations for Imputations of Data Missing At Random in Scatterplots**

Wai Tong, Zhutian Chen, Meng Xia, Leo Yu-Ho Lo, Linping Yuan, Benjamin Bach, Huamin Qu **Exploring Interactions with Printed Data Visualizations in Augmented Reality**

Qianwen Wang, Kexin Huang, Payal Chandak, Marinka Zitnik, Nils Gehlenborg **Extending the Nested Model for User-Centric XAI: A Design Study on GNN-based Drug Repurposing**

David Bauer, Qi Wu, Kwan-Liu Ma **FoVolNet: Fast Volume Rendering using Foveated Deep Neural Networks**

Kai Lawonn, Monique Meuschke, Pepe Eulzer, Matthias Mitterreiter, Joachim Giesen, Tobias Günther **GRay: Ray Casting for Visualization and Interactive Data Exploration of Gaussian Mixture Models**

Aditeya Pandey, Arjun Srinivasan, Vidya Setlur **Medley: Intent-based Recommendations to Support Dashboard Composition**

Yihong Wu, Dazhen Deng, Xiao Xie, Moqi He, Jie Xu, Hongzeng Zhang, Hui Zhang, Yingcai Wu **OBTracker: Visual Analytics of Off-ball Movements in Basketball**

Nate Morrical, Alper Sahistan, Ugur Gudukbay, Ingo Wald, Valerio Pascucci **Quick Clusters: A GPU-Parallel Partitioning for Efficient Path Tracing of Unstructured Volumetric Grids**

Xiaoyu Zhang, Jorge H Piazzentin Ono, Huan Song, Liang Gou, Kwan-Liu Ma, Liu Ren **SliceTeller : A Data Slice-Driven Approach for Machine Learning Model Validation**

Yang Shi, Pei Liu, Siji Chen, Mengdi Sun, Nan Cao **Supporting Expressive and Faithful Pictorial Visualization Design with Visual Style Transfer**

Tica Lin, Zhutian Chen, Yalong Yang, Daniele Chiappalupi, Johanna Beyer, Hanspeter Pfister **The Quest for Omnioculars: Embedded Visualization for Augmenting Basketball Game Viewing Experiences**

Catalina Vajiac, Duen Horng Chau, Andreas Olligschlaeger, Rebecca Mackenzie, Pratheeeksha Nair, Meng-Chieh Lee, Yifei Li, Namyoung Park, Reihaneh Rabbany, Christos Faloutsos **TrafficVis: Visualizing Organized Activity and Spatio-Temporal Patterns for Detecting Human Trafficking**

Neng Shi, Jiayi Xu, Haoyu Li, Hanqi Guo, Jonathan Woodring, Han-Wei Shen **VDL-Surrogate: A View-Dependent Latent-based Model for Parameter Space Exploration of Ensemble Simulations**

Best Short Paper

Leilani Battle, Danni Feng, Kelli Webber **Exploring D3 Implementation Challenges on Stack Overflow**

Short Paper Honorable Mentions

Maoyuan Sun, Yue Ma, Yuanxin Wang, Tianyi Li, Jian Zhao, Yujun Liu, Ping-Shou Zhong **Toward Systematic Considerations of Missingness in Visual Analytics**

Bingjie Xu, Shunan Guo, Eunyee Koh, Jane Hoffswell, Ryan Rossi, Fan Du **ARShopping: In-Store Shopping Decision Support Through Augmented Reality and Immersive**

Best Poster

Jillian Aurisano, Abeer Alsaiari, Abhinav Kumar, Moira Zellner, Jason Leigh, Barbara Di Eugenio, Andrew E Johnson **Ditto: Exploring data in large display environments through speech+mid-air gesture interactions**

Best Poster Honorable Mentions

Luke Demarest **Dynamic visualizations for violence prevention**

Hamza Elhamdadi, Lace Padilla, Cindy Xiong **Processing Fluency Improves Trust in Scatterplot Visualizations**

2021

Best Paper Awards:

Shih-Hsuan Hung, Yue Zhang, Harry Yeh, Eugene Zhang **Feature Curves and Surfaces of 3D Asymmetric Tensor Fields** DOI: [10.1109/TVCG.2021.3114808](https://doi.org/10.1109/TVCG.2021.3114808)

Joscha Eirich, Jakob Bonart, Dominik Jäckle, Michael Sedlmair, Ute Schmid, Kai Fischbach, Tobias Schreck, Jürgen Bernard **IRVINE: Using Interactive Clustering and Labeling to Analyze Correlation Patterns: A Design Study from the Manufacturing of Electrical Engines** DOI: [10.1109/TVCG.2021.3114797](https://doi.org/10.1109/TVCG.2021.3114797)

Wesley Willett, Bon Adriel Aseniero, Sheelagh Carpendale, Pierre Dragicevic, Yvonne Jansen, Lora Oehlberg, Petra Isenberg **Perception! Immersion! Empowerment! Superpowers as Inspiration for Visualization** DOI: [10.1109/TVCG.2021.3114844](https://doi.org/10.1109/TVCG.2021.3114844)

Nathan van Beusekom, Wouter Meulemans, Bettina Speckmann **Simultaneous Matrix Orderings for Graph Collections** DOI: [10.1109/TVCG.2021.3114773](https://doi.org/10.1109/TVCG.2021.3114773)

Honorable Mention Awards:

Zehua Zeng, Phoebe Moh, Fan Du, Jane Hoffswell, Tak Yeon Lee, Sana Malik, Eunyee Koh, Leilani Battle **An Evaluation-Focused Framework for Visualization Recommendation Algorithms** DOI: [10.1109/TVCG.2021.3114814](https://doi.org/10.1109/TVCG.2021.3114814)

Zhutian Chen, Shuainan Ye, Xiangtong Chu, Haijun Xia, Hui Zhang, Huamin Qu, Yingcai Wu **Augmenting Sports Videos with VisCommentator** DOI: [10.1109/TVCG.2021.3114806](https://doi.org/10.1109/TVCG.2021.3114806)

Alex Kale, Yifan Wu, Jessica Hullman **Causal Support: Modeling Causal Inferences with Visualizations** DOI: [10.1109/TVCG.2021.3114824](https://doi.org/10.1109/TVCG.2021.3114824)

Crescentia Jung, Shubham R. Mehta, Atharva Kulkarni, Yuhang Zhao, Yea-Seul Kim **Communicating Visualizations without Visuals: Investigation of Visualization Alternative Text for People with Visual Impairments** DOI: [10.1109/TVCG.2021.3114846](https://doi.org/10.1109/TVCG.2021.3114846)

Kushin Mukherjee, Brian N. Yin, Brianne E. Sherman, Laurent Lessard, Karen Schloss **Context Matters: A Theory of Semantic Discriminability for Perceptual Encoding Systems** DOI: [10.1109/TVCG.2021.3114780](https://doi.org/10.1109/TVCG.2021.3114780)

Jonathan C. Roberts, Peter W. S. Butcher, Ann Sherlock, Sarah Nason **Explanatory Journeys: Visualising to Understand and Explain Administrative Justice Paths of Redress** DOI: [10.1109/TVCG.2021.3114818](https://doi.org/10.1109/TVCG.2021.3114818)

Xingdi Zhang, Markus Hadwiger, Thomas Theussl, Peter Rautek **Interactive Exploration of Physically-Observable Objective Vortices in Unsteady 2D Flow** DOI: [10.1109/TVCG.2021.3115565](https://doi.org/10.1109/TVCG.2021.3115565)

Haotian Li, Yong Wang, Songheng Zhang, Yangqiu Song, Huamin Qu **KG4Vis: A Knowledge Graph-Based Approach for Visualization Recommendation** DOI: [10.1109/TVCG.2021.3114863](https://doi.org/10.1109/TVCG.2021.3114863)

Devin Lange, Eddie Polanco, Robert L. Judson-Torres, Thomas A. Zangle, Alexander Lex **Loon: Using Exemplars to Visualize Large-Scale Microscopy Data** DOI: [10.1109/TVCG.2021.3114766](https://doi.org/10.1109/TVCG.2021.3114766)

Xingbo Wang, Jianben He, Zhihua Jin, Muqiao Yang, Yong Wang, Huamin Qu **M²Lens:**

Visualizing and Explaining Multimodal Models for Sentiment Analysis DOI:

[10.1109/TVCG.2021.3114794](https://doi.org/10.1109/TVCG.2021.3114794)

Johannes Knittel, Steffen Koch, Tan Tang, Wei Chen, Yingcai Wu, Shixia Liu, Thomas Ertl

Real-Time Visual Analysis of High-Volume Social Media Posts DOI:

[10.1109/TVCG.2021.3114800](https://doi.org/10.1109/TVCG.2021.3114800)

Caitlyn M. McColeman, Fumeng Yang, Timothy F. Brady, Steven Franconeri **Rethinking the Ranks of Visual Channels** DOI: [10.1109/TVCG.2021.3114684](https://doi.org/10.1109/TVCG.2021.3114684)

Maoyuan Sun, Abdul Rahman Shaikh, Hamed Alhoori, Jian Zhao **SightBi: Exploring Cross-View Data Relationships with Biclusters** DOI: [10.1109/TVCG.2021.3114801](https://doi.org/10.1109/TVCG.2021.3114801)

Rebecca Kehlbeck, Jochen Görtler, Yunhai Wang, Oliver Deussen **spEuler: Semantics-preserving Euler Diagrams** DOI: [10.1109/TVCG.2021.3114834](https://doi.org/10.1109/TVCG.2021.3114834)

Furui Cheng, Dongyu Liu, Fan Du, Yanna Lin, Alexandra Zytek, Haomin Li, Huamin Qu, Kalyan Veeramachaneni **VBridge: Connecting the Dots Between Features and Data to Explain Healthcare Models** DOI: [10.1109/TVCG.2021.3114836](https://doi.org/10.1109/TVCG.2021.3114836)

Michael Oppermann, Tamara Munzner **VizSnippets: Compressing Visualization Bundles Into Representative Previews for Browsing Visualization Collections** DOI:

[10.1109/TVCG.2021.3114841](https://doi.org/10.1109/TVCG.2021.3114841)

2020

Best Paper Awards:

Alex Kale, Matthew Kay, Jessica Hullman. **Visual Reasoning Strategies for Effect Size Judgments and Decisions.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2020.3030335](https://doi.org/10.1109/TVCG.2020.3030335)

Peter Rautek, Matej Mlejnek, Johanna Beyer, Jakob Troidl, Hanspeter Pfister, Thomas Theußl, Markus Hadwiger. **Objective Observer-Relative Flow Visualization in Curved Spaces for Unsteady 2D Geophysical Flows.** Awarded at: SciVis. DOI: [10.1109/TVCG.2020.3030454](https://doi.org/10.1109/TVCG.2020.3030454)

Liang Gou, Lincan Zou, Nanxiang Li, Michael Hofmann, Arvind Kumar Shekar, Axel Wendt, Liu Ren. **VATLD: A Visual Analytics System to Assess, Understand and Improve Traffic Light Detection.** Awarded at: VAST. DOI: [10.1109/TVCG.2020.3030350](https://doi.org/10.1109/TVCG.2020.3030350)

Honorable Mention Awards:

Madison A. Elliott, Christine Nothelfer, Cindy Xiong, Danielle Albers Szafir. **A Design Space of Vision Science Methods for Visualization Research.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2020.3029413](https://doi.org/10.1109/TVCG.2020.3029413)

Fritz Lekschas, Xinyi Zhou, Wei Chen, Nils Gehlenborg, Benjamin Bach, Hanspeter Pfister. **A Generic Framework and Library for Exploration of Small Multiples through Interactive Piling.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2020.3028948](https://doi.org/10.1109/TVCG.2020.3028948)

Wouter Meulemans, Max Sondag, Bettina Speckmann. **A Simple Pipeline for Coherent Grid Maps.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2020.3028953](https://doi.org/10.1109/TVCG.2020.3028953)

Benjamin Lee, Dave Brown, Bongshin Lee, Christophe Hurter, Steven Drucker, Tim Dwyer. **Data Visceralization: Enabling Deeper Understanding of Data Using Virtual Reality.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2020.3030435](https://doi.org/10.1109/TVCG.2020.3030435)

Annemieke Verbraeck, Elmar Eisemann. **Interactive Black-Hole Visualization.** Awarded at: SciVis. DOI: [10.1109/TVCG.2020.3030452](https://doi.org/10.1109/TVCG.2020.3030452)

T. Baumgartl, N. T. Mutters, Highmed Consortium, T. Von Landesberger, M. Petzold, M. Wunderlich, M. Hohn, D. Archambault, M. Lieser, A. Dalpke, S. Scheithauer, M. Marschollek, V. M. Eichel. **In Search of Patient Zero: Visual Analytics of Pathogen Transmission Pathways in Hospitals.** Awarded at: VAST. DOI: [10.1109/TVCG.2020.3030437](https://doi.org/10.1109/TVCG.2020.3030437)

Ying Zhao, Haojin Jiang, Qi'an Chen, Yaqi Qin, Huixuan Xie, Yitao Wu, Shixia Liu, Zhiguang Zhou, Jiazhi Xia, Fangfang Zhou. **Preserving Minority Structures in Graph Sampling.** Awarded at: VAST. DOI: [10.1109/TVCG.2020.3030428](https://doi.org/10.1109/TVCG.2020.3030428)

2019

Best Paper Awards:

Jagoda Walny, Christian Frisson, Mieka West, Doris Kosminsky, Søren Knudsen, Sheelagh Carpendale, Wesley Willett. **Data Changes Everything: Challenges and Opportunities in Data Visualization Design Handoff.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2019.2934538](https://doi.org/10.1109/TVCG.2019.2934538)

Wenbin He, Junpeng Wang, Hanqi Guo, Ko-Chih Wang, Han-Wei Shen, Mukund Raj, Youssef S. G. Nashed, Tom Peterka. **InSituNet: Deep Image Synthesis for Parameter Space Exploration of Ensemble Simulations.** Awarded at: SciVis. DOI: [10.1109/TVCG.2019.2934312](https://doi.org/10.1109/TVCG.2019.2934312)

Bowen Yu, Cláudio T. Silva. **FlowSense: A Natural Language Interface for Visual Data Exploration within a Dataflow System.** Awarded at: VAST. DOI: [10.1109/TVCG.2019.2934668](https://doi.org/10.1109/TVCG.2019.2934668)

Honorable Mention Awards:

Nicole Jardine, Brian D. Ondov, Niklas Elmquist, Steven Franconeri. **The Perceptual Proxies of Visual Comparison.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2019.2934786](https://doi.org/10.1109/TVCG.2019.2934786)

Jules Vidal, Joseph Budin, Julien Tierny. **Progressive Wasserstein Barycenters of Persistence Diagrams.** Awarded at: SciVis. DOI: [10.1109/TVCG.2019.2934256](https://doi.org/10.1109/TVCG.2019.2934256)

Pavol Klacansky, Attila Gyulassy, Peer-Timo Bremer, Valerio Pascucci. **Toward Localized Topological Data Structures: Querying the Forest for the Tree.** Awarded at: SciVis. DOI: [10.1109/TVCG.2019.2934257](https://doi.org/10.1109/TVCG.2019.2934257)

Subhashis Hazarika, Haoyu Li, Ko-Chih Wang, Han-Wei Shen, Ching-Shan Chou. **NNVA: Neural Network Assisted Visual Analysis of Yeast Cell Polarization Simulation.** Awarded at: VAST. DOI: [10.1109/TVCG.2019.2934591](https://doi.org/10.1109/TVCG.2019.2934591)

Takanori Fujiwara, Oh-Hyun Kwon, Kwan-Liu Ma. **Supporting Analysis of Dimensionality Reduction Results with Contrastive Learning.** Awarded at: VAST. DOI: [10.1109/TVCG.2019.2934251](https://doi.org/10.1109/TVCG.2019.2934251)

2018

Best Paper Awards:

Dominik Moritz, Chenglong Wang, Greg L. Nelson, Halden Lin, Adam M. Smith, Bill Howe, Jeffrey Heer. **Formalizing Visualization Design Knowledge as Constraints: Actionable and Extensible Models in Draco.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2018.2865240](https://doi.org/10.1109/TVCG.2018.2865240)

Andrey Krekhov, Jens Krüger. **Deadeye: A Novel Preattentive Visualization Technique Based on Dichoptic Presentation.** Awarded at: SciVis. DOI: [10.1109/TVCG.2018.2864498](https://doi.org/10.1109/TVCG.2018.2864498)

Dongyu Liu, Panpan Xu, Liu Ren. **TPFlow: Progressive Partition and Multidimensional Pattern Extraction for Large-Scale Spatio-Temporal Data Analysis.** Awarded at: VAST. DOI: [10.1109/TVCG.2018.2865018](https://doi.org/10.1109/TVCG.2018.2865018)

Honorable Mention Awards:

Jo Wood, Alexander Kachkaev, Jason Dykes. **Design Exposition with Literate Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2018.2864836](https://doi.org/10.1109/TVCG.2018.2864836)

Karen B. Schloss, Connor C. Gramazio, Allison T. Silverman, Madeline L. Parker, Audrey S. Wang. **Mapping Color to Meaning in Colormap Data Visualizations.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2018.2865147](https://doi.org/10.1109/TVCG.2018.2865147)

Donghao Ren, Bongshin Lee, Matthew Brehmer. **Charticulator: Interactive Construction of Bespoke Chart Layouts.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2018.2865158](https://doi.org/10.1109/TVCG.2018.2865158)

David Kouřil, Ladislav Čmolík, Barbora Kozlíková, Hslanc-Yun Wu, Graham Johnson, David S. Goodsell, Arthur Olson, M. Eduard Gröller, Ivan Viola. **Labels on Levels: Labeling of Multi-Scale Multi-Instance and Crowded 3D Biological Environments.** Awarded at: SciVis. DOI: [10.1109/TVCG.2018.2864491](https://doi.org/10.1109/TVCG.2018.2864491)

Sergej Stoppel, Magnus Paulson Erga, Stefan Bruckner. **Firefly: Virtual Illumination Drones for Interactive Visualization.** Awarded at: SciVis. DOI: [10.1109/TVCG.2018.2864656](https://doi.org/10.1109/TVCG.2018.2864656)

Junpeng Wang, Liang Gou, Han-Wei Shen, Hao Yang. **DQNViz: A Visual Analytics**

Approach to Understand Deep Q-Networks. Awarded at: VAST. DOI:

[10.1109/TVCG.2018.2864504](https://doi.org/10.1109/TVCG.2018.2864504)

Cong Xie, Wei Xu, Klaus Mueller. **A Visual Analytics Framework for the Detection of Anomalous Call Stack Trees in High Performance Computing Applications.** Awarded at: VAST. DOI: [10.1109/TVCG.2018.2865026](https://doi.org/10.1109/TVCG.2018.2865026)

Hendrik Strobelt, Sebastian Gehrmann, Michael Behrisch, Adam Perer, Hanspeter Pfister, Alexander M. Rush. **Seq2Seq-Vis: A Visual Debugging Tool for Sequence-to-Sequence Models.** Awarded at: VAST. DOI: [10.1109/TVCG.2018.2865044](https://doi.org/10.1109/TVCG.2018.2865044)

2017

Best Paper Awards:

Danielle Albers Szafrir. **Modeling Color Difference for Visualization Design.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2017.2744359](https://doi.org/10.1109/TVCG.2017.2744359)

Karl Bladin, Emil Axelsson, Erik Broberg, Carter Emmart, Patric Ljung, Alexander Bock, Anders Ynnerman. **Globe Browsing: Contextualized Spatio-Temporal Planetary Surface Visualization.** Awarded at: SciVis. DOI: [10.1109/TVCG.2017.2743958](https://doi.org/10.1109/TVCG.2017.2743958)

Kanit Wongsuphasawat, Daniel Smilkov, James Wexler, Jimbo Wilson, Dandelion Mané, Doug Fritz, Dilip Krishnan, Fernanda B. Viégas, Martin Wattenberg. **Visualizing Dataflow Graphs of Deep Learning Models in TensorFlow.** Awarded at: VAST. DOI: [10.1109/TVCG.2017.2744878](https://doi.org/10.1109/TVCG.2017.2744878)

Honorable Mention Awards:

Zening Qu, Jessica Hullman. **Keeping Multiple Views Consistent: Constraints, Validations, and Exceptions in Visualization Authoring.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2017.2744198](https://doi.org/10.1109/TVCG.2017.2744198)

Heidi Lam, Melanie Tory, Tamara Munzner. **Bridging from Goals to Tasks with Design Study Analysis Reports.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2017.2744319](https://doi.org/10.1109/TVCG.2017.2744319)

Julien Tierny, Guillaume Favelier, Joshua A. Levine, Charles Gueunet, Michael Michaux. **The Topology ToolKit.** Awarded at: SciVis. DOI: [10.1109/TVCG.2017.2743938](https://doi.org/10.1109/TVCG.2017.2743938)

Tobias Klein, Ludovic Autin, Barbora Kozlíková, David S. Goodsell, Arthur Olson, M. Eduard Gröller, Ivan Viola. **Instant Construction and Visualization of Crowded Biological Environments.** Awarded at: SciVis. DOI: [10.1109/TVCG.2017.2744258](https://doi.org/10.1109/TVCG.2017.2744258)

Mennatallah El-Assady, Rita Sevastjanova, Fabian Sperrle, Daniel Keim, Christopher Collins. **Progressive Learning of Topic Modeling Parameters: A Visual Analytics Framework.** Awarded at: VAST. DOI: [10.1109/TVCG.2017.2745080](https://doi.org/10.1109/TVCG.2017.2745080)

Jian Zhao, Michael Glueck, Petra Isenberg, Fanny Chevalier, Azam Khan. **Supporting Handoff in Asynchronous Collaborative Sensemaking Using Knowledge-Transfer Graphs.** Awarded at: VAST. DOI: [10.1109/TVCG.2017.2745279](https://doi.org/10.1109/TVCG.2017.2745279)

2016

Best Paper Awards:

Arvind Satyanarayan, Dominik Moritz, Kanit Wongsuphasawat, Jeffrey Heer. **Vega-Lite: A Grammar of Interactive Graphics.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2016.2599030](https://doi.org/10.1109/TVCG.2016.2599030)

Julien Tierny, Hamish Carr. **Jacobi Fiber Surfaces for Bivariate Reeb Space Computation.** Awarded at: SciVis. DOI: [10.1109/TVCG.2016.2599017](https://doi.org/10.1109/TVCG.2016.2599017)

Gary K. L. Tam, Vivek Kothari, Min Chen. **An Analysis of Machine- and Human-Analytics in Classification.** Awarded at: VAST. DOI: [10.1109/TVCG.2016.2598829](https://doi.org/10.1109/TVCG.2016.2598829)

Honorable Mention Awards:

Evanthia Dimara, Anastasia Bezerianos, Pierre Dragicevic. **The Attraction Effect in Information Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVC.2016.2598594](https://doi.org/10.1109/TVC.2016.2598594)

Roger Beecham, Jason Dykes, Wouter Meulemans, Aidan Slingsby, Cagatay Turkay, Jo Wood. **Map LineUps: Effects of spatial structure on graphical inference.** Awarded at: InfoVis. DOI: [10.1109/TVC.2016.2598862](https://doi.org/10.1109/TVC.2016.2598862)

Yalong Yang, Tim Dwyer, Sarah Goodwin, Kim Marriott. **Many-to-Many Geographically-Embedded Flow Visualisation: An Evaluation.** Awarded at: InfoVis. DOI: [10.1109/TVC.2016.2598885](https://doi.org/10.1109/TVC.2016.2598885)

Daniel Jönsson, Anders Ynnerman. **Correlated Photon Mapping for Interactive Global Illumination of Time-Varying Volumetric Data.** Awarded at: SciVis. DOI: [10.1109/TVC.2016.2598430](https://doi.org/10.1109/TVC.2016.2598430)

Soumya Dutta, Chun-Ming Chen, Gregory Heinlein, Han-Wei Shen, Jen-Ping Chen. **In Situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations.** Awarded at: SciVis. DOI: [10.1109/TVC.2016.2598604](https://doi.org/10.1109/TVC.2016.2598604)

Cong Xie, Wen Zhong, Klaus Mueller. **A Visual Analytics Approach for Categorical Joint Distribution Reconstruction from Marginal Projections.** Awarded at: VAST. DOI: [10.1109/TVC.2016.2598479](https://doi.org/10.1109/TVC.2016.2598479)

Panpan Xu, Honghui Mei, Liu Ren, Wei Chen. **ViDX: Visual Diagnostics of Assembly Line Performance in Smart Factories.** Awarded at: VAST. DOI: [10.1109/TVC.2016.2598664](https://doi.org/10.1109/TVC.2016.2598664)

2015

Best Paper Awards:

Steve Kieffer, Tim Dwyer, Kim Marriott, Michael Wybrow. **HOLA: Human-like Orthogonal Network Layout.** Awarded at: InfoVis. DOI: [10.1109/TVC.2015.2467451](https://doi.org/10.1109/TVC.2015.2467451)

David Schroeder, Daniel F. Keefe. **Visualization-by-Sketching: An Artist's Interface for Creating Multivariate Time-Varying Data Visualizations.** Awarded at: SciVis. DOI: [10.1109/TVC.2015.2467153](https://doi.org/10.1109/TVC.2015.2467153)

Stef van den Elzen, Danny Holten, Jorik Blaas, Jarke J. van Wijk. **Reducing Snapshots to Points: A Visual Analytics Approach to Dynamic Network Exploration.** Awarded at: VAST. DOI: [10.1109/TVC.2015.2468078](https://doi.org/10.1109/TVC.2015.2468078)

Honorable Mention Awards:

Matthew Kay, Jeffrey Heer. **Beyond Weber's Law: A Second Look at Ranking Visualizations of Correlation.** Awarded at: InfoVis. DOI: [10.1109/TVC.2015.2467671](https://doi.org/10.1109/TVC.2015.2467671)

Tobias Günther, Maik Schulze, Holger Theisel. **Rotation Invariant Vortices for Flow Visualization.** Awarded at: SciVis. DOI: [10.1109/TVC.2015.2467200](https://doi.org/10.1109/TVC.2015.2467200)

Hua Guo, Steven R. Gomez, Caroline Ziemkiewicz, David H. Laidlaw. **A Case Study Using Visualization Interaction Logs and Insight Metrics to Understand How Analysts Arrive at Insights.** Awarded at: VAST. DOI: [10.1109/TVC.2015.2467613](https://doi.org/10.1109/TVC.2015.2467613)

Tanja Blascheck, Markus John, Kuno Kurzhals, Steffen Koch, Thomas Ertl. **VA2: A Visual Analytics Approach for Evaluating Visual Analytics Applications.** Awarded at: VAST. DOI: [10.1109/TVC.2015.2467871](https://doi.org/10.1109/TVC.2015.2467871)

2014

Best Paper Awards:

Stef van den Elzen, Jarke J. van Wijk. **Multivariate Network Exploration and Presentation: From Detail to Overview via Selections and Aggregations.** Awarded at: InfoVis. DOI: [10.1109/TVC.2014.2346441](https://doi.org/10.1109/TVC.2014.2346441)

Sujal Bista, Jiachen Zhuo, Rao P. Gullapalli, Amitabh Varshney. **Visualization of Brain Microstructure Through Spherical Harmonics Illumination of High Fidelity Spatio-**

Angular Fields. Awarded at: SciVis. DOI: [10.1109/TVCG.2014.2346411](https://doi.org/10.1109/TVCG.2014.2346411)

Narges Mahyar, Melanie Tory. **Supporting Communication and Coordination in Collaborative Sensemaking.** Awarded at: VAST. DOI: [10.1109/TVCG.2014.2346573](https://doi.org/10.1109/TVCG.2014.2346573)

Honorable Mention Awards:

Samuel Gratzl, Nils Gehlenborg, Alexander Lex, Hanspeter Pfister, Marc Streit. **Domino: Extracting, Comparing, and Manipulating Subsets Across Multiple Tabular Datasets.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2014.2346260](https://doi.org/10.1109/TVCG.2014.2346260)

Ali K. Al-Awami, Johanna Beyer, Hendrik Strobelt, Narayanan Kasthuri, Jeff W. Lichtman, Hanspeter Pfister, Markus Hadwiger. **NeuroLines: A Subway Map Metaphor for Visualizing Nanoscale Neuronal Connectivity.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2014.2346312](https://doi.org/10.1109/TVCG.2014.2346312)

Gordon Kindlmann, Carlos Scheidegger. **An Algebraic Process for Visualization Design.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2014.2346325](https://doi.org/10.1109/TVCG.2014.2346325)

Tao Ju, Minxin Cheng, Xu Wang, Ye Duan. **A Robust Parity Test for Extracting Parallel Vectors in 3D.** Awarded at: SciVis. DOI: [10.1109/TVCG.2014.2346412](https://doi.org/10.1109/TVCG.2014.2346412)

Sean M. Arietta, Alexei A. Efros, Ravi Ramamoorthi, Maneesh Agrawala. **City Forensics: Using Visual Elements to Predict Non-Visual City Attributes.** Awarded at: SciVis. DOI: [10.1109/TVCG.2014.2346446](https://doi.org/10.1109/TVCG.2014.2346446)

Conglei Shi, Yingcai Wu, Shixia Liu, Hong Zhou, Huamin Qu. **LoyalTracker: Visualizing Loyalty Dynamics in Search Engines.** Awarded at: VAST. DOI: [10.1109/TVCG.2014.2346912](https://doi.org/10.1109/TVCG.2014.2346912)

Jian Zhao, Nan Cao, Zhen Wen, Yale Song, Yu-Ru Lin, Christopher Collins. **#FluxFlow: Visual Analysis of Anomalous Information Spreading on Social Media.** Awarded at: VAST. DOI: [10.1109/TVCG.2014.2346922](https://doi.org/10.1109/TVCG.2014.2346922)

2013

Best Paper Awards:

Samuel Gratzl, Alexander Lex, Nils Gehlenborg, Hanspeter Pfister, Marc Streit. **LineUp: Visual Analysis of Multi-Attribute Rankings.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2013.173](https://doi.org/10.1109/TVCG.2013.173)

Mathias Hummel, Harald Obermaier, Christoph Garth, Kenneth I. Joy. **Comparative Visual Analysis of Lagrangian Transport in CFD Ensembles.** Awarded at: SciVis. DOI: [10.1109/TVCG.2013.141](https://doi.org/10.1109/TVCG.2013.141)

Thomas Mühlbacher, Harald Piringer. **A Partition-Based Framework for Building and Validating Regression Models.** Awarded at: VAST. DOI: [10.1109/TVCG.2013.125](https://doi.org/10.1109/TVCG.2013.125)

Honorable Mention Awards:

Lauro Lins, James T. Klosowski, Carlos Scheidegger. **Nanocubes for Real-Time Exploration of Spatiotemporal Datasets.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2013.179](https://doi.org/10.1109/TVCG.2013.179)

Charles Perin, Romain Vuillemot, Jean-Daniel Fekete. **SoccerStories: A Kick-off for Visual Soccer Analysis.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2013.192](https://doi.org/10.1109/TVCG.2013.192)

Samer S. Barakat, Xavier Tricoche. **Adaptive Refinement of the Flow Map Using Sparse Samples.** Awarded at: SciVis. DOI: [10.1109/TVCG.2013.128](https://doi.org/10.1109/TVCG.2013.128)

Marco Ament, Filip Sadlo, Daniel Weiskopf. **Ambient Volume Scattering.** Awarded at: SciVis. DOI: [10.1109/TVCG.2013.129](https://doi.org/10.1109/TVCG.2013.129)

Dane Coffey, Chi-Lun Lin, Arthur G. Erdman, Daniel F. Keefe. **Design by Dragging: An Interface for Creative Forward and Inverse Design with Simulation Ensembles.** Awarded at: SciVis. DOI: [10.1109/TVCG.2013.147](https://doi.org/10.1109/TVCG.2013.147)

Michael Gleicher. **Explainers: Expert Explorations with Crafted Projections.** Awarded at: VAST. DOI: [10.1109/TVCG.2013.157](https://doi.org/10.1109/TVCG.2013.157)

Megan Monroe, Rongjian Lan, Hanseung Lee, Catherine Plaisant, Ben Shneiderman.

2012

Best Paper Awards:

Steve Haroz, David Whitney. **How Capacity Limits of Attention Influence Information Visualization Effectiveness.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2012.233](https://doi.org/10.1109/TVCG.2012.233)

Cheuk Yiu Ip, Amitabh Varshney, Joseph JaJa. **Hierarchical Exploration of Volumes Using Multilevel Segmentation of the Intensity-Gradient Histograms.** Awarded at: SciVis. DOI: [10.1109/TVCG.2012.231](https://doi.org/10.1109/TVCG.2012.231)

Gennady Andrienko, Natalia Andrienko, Michael Burch, Daniel Weiskopf. **Visual Analytics Methodology for Eye Movement Studies.** Awarded at: VAST. DOI: [10.1109/TVCG.2012.276](https://doi.org/10.1109/TVCG.2012.276)

Honorable Mention Awards:

Luana Micallef, Pierre Dragicevic, Jean-Daniel Fekete. **Assessing the Effect of Visualizations on Bayesian Reasoning through Crowdsourcing.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2012.199](https://doi.org/10.1109/TVCG.2012.199)

Michael Sedlmair, Miriah Meyer, Tamara Munzner. **Design Study Methodology: Reflections from the Trenches and the Stacks.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2012.213](https://doi.org/10.1109/TVCG.2012.213)

Alan M. MacEachren, Robert E. Roth, James O'Brien, Bonan Li, Derek Swingley, Mark Gahegan. **Visual Semiotics & Uncertainty Visualization: An Empirical Study.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2012.279](https://doi.org/10.1109/TVCG.2012.279)

Lingyun Yu, Konstantinos Efstathiou, Petra Isenberg, Tobias Isenberg. **Efficient Structure-Aware Selection Techniques for 3D Point Cloud Visualizations with 2DOF Input.** Awarded at: SciVis. DOI: [10.1109/TVCG.2012.217](https://doi.org/10.1109/TVCG.2012.217)

Markus Hadwiger, Johanna Beyer, Won-Ki Jeong, Hanspeter Pfister. **Interactive Volume Exploration of Petascale Microscopy Data Streams Using a Visualization-Driven Virtual Memory Approach.** Awarded at: SciVis. DOI: [10.1109/TVCG.2012.240](https://doi.org/10.1109/TVCG.2012.240)

Sean Kandel, Andreas Paepcke, Joseph M. Hellerstein, Jeffrey Heer. **Enterprise Data Analysis and Visualization: An Interview Study.** Awarded at: VAST. DOI: [10.1109/TVCG.2012.219](https://doi.org/10.1109/TVCG.2012.219)

Bilal Alsallakh, Wolfgang Aigner, Silvia Miksch, M. Eduard Gröller. **Reinventing the Contingency Wheel: Scalable Visual Analytics of Large Categorical Data.** Awarded at: VAST. DOI: [10.1109/TVCG.2012.254](https://doi.org/10.1109/TVCG.2012.254)

2011

Best Paper Awards:

Markus Steinberger, Manuela Waldner, Marc Streit, Alexander Lex, Dieter Schmalstieg. **Context-Preserving Visual Links.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2011.183](https://doi.org/10.1109/TVCG.2011.183)

Gennady Andrienko, Natalia Andrienko, Christophe Hurter, Salvatore Rinzivillo, Stefan Wrobel. **From movement tracks through events to places: Extracting and characterizing significant places from mobility data.** Awarded at: VAST. DOI: [10.1109/VAST.2011.6102454](https://doi.org/10.1109/VAST.2011.6102454)

Carlos Correa, Peter Lindstrom. **Towards Robust Topology of Sparsely Sampled Data.** Awarded at: Vis. DOI: [10.1109/TVCG.2011.245](https://doi.org/10.1109/TVCG.2011.245)

Honorable Mention Awards:

Jessica Hullman, Eytan Adar, Priti Shah. **Benefitting InfoVis with Visual Difficulties.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2011.175](https://doi.org/10.1109/TVCG.2011.175)

Paulo Joia, Danilo Coimbra, Jose A. Cuminato, Fernando V. Paulovich, Luis G. Nonato. **Local Affine Multidimensional Projection.** Awarded at: InfoVis. DOI:

Zhicheng Liu, Shamkant B. Navathe, John T. Stasko. **Network-based visual analysis of tabular data.** Awarded at: VAST. DOI: [10.1109/VAST.2011.6102440](https://doi.org/10.1109/VAST.2011.6102440)

Adam Perer, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. **Visual social network analytics for relationship discovery in the enterprise.** Awarded at: VAST. DOI: [10.1109/VAST.2011.6102443](https://doi.org/10.1109/VAST.2011.6102443)

Caroline Ziemkiewicz, R. Jordan Crouser, Ashley Rye Yauilla, Sara L. Su, William Ribarsky, Remco Chang. **How locus of control influences compatibility with visualization style.** Awarded at: VAST. DOI: [10.1109/VAST.2011.6102445](https://doi.org/10.1109/VAST.2011.6102445)

Alessandro Giusti, Pierluigi Taddei, Giorgio Corani, Luca Gambardella, Cristina Magli, Luca Giarolli. **Artificial Defocus for Displaying Markers in Microscopy Z-Stacks.** Awarded at: Vis. DOI: [10.1109/TVCG.2011.168](https://doi.org/10.1109/TVCG.2011.168)

Cheuk Yiu Ip, Amitabh Varshney. **Saliency-Assisted Navigation of Very Large Landscape Images.** Awarded at: Vis. DOI: [10.1109/TVCG.2011.231](https://doi.org/10.1109/TVCG.2011.231)

Norbert Lindow, Daniel Baum, Hans-Christian Hege. **Voronoi-Based Extraction and Visualization of Molecular Paths.** Awarded at: Vis. DOI: [10.1109/TVCG.2011.259](https://doi.org/10.1109/TVCG.2011.259)

Test of Time Award:

Alan M. MacEachren, Anuj Jaiswal, Anthony C. Robinson, Scott Pezanowski, Alexander Saveliev, Prasenjit Mitra, Xiao Zhang, and Justine Blanford. **SensePlace2: GeoTwitter analytics support for situational awareness.** Awarded at: VAST. DOI: [10.1109/VAST.2011.6102456](https://doi.org/10.1109/VAST.2011.6102456)

Michael Bostock, Vadim Ogievetsky, Jeffrey Heer. **D³: Data-Driven Documents.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2011.185](https://doi.org/10.1109/TVCG.2011.185)

2010

Best Paper Awards:

Hadley Wickham, Dianne Cook, Heike Hofmann, Andreas Buja. **Graphical inference for infovis.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.161](https://doi.org/10.1109/TVCG.2010.161)

Daniela Oelke, David Spretko, Andreas Stoffel, Daniel A. Keim. **Visual readability analysis: How to make your writings easier to read.** Awarded at: VAST. DOI: [10.1109/VAST.2010.5652926](https://doi.org/10.1109/VAST.2010.5652926)

Tino Weinkauf, Holger Theisel. **Streak Lines as Tangent Curves of a Derived Vector field.** Awarded at: Vis. DOI: [10.1109/TVCG.2010.198](https://doi.org/10.1109/TVCG.2010.198)

Honorable Mention Awards:

Jeffrey Heer, Michael Bostock. **Declarative Language Design for Interactive Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.144](https://doi.org/10.1109/TVCG.2010.144)

authro Speckmann, Kevin Verbeek. **Necklace Maps.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.180](https://doi.org/10.1109/TVCG.2010.180)

Nicholas Kong, Jeffrey Heer, Maneesh Agrawala. **Perceptual Guidelines for Creating Rectangular Treemaps.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.186](https://doi.org/10.1109/TVCG.2010.186)

Jason Dykes, Jo Wood, Aidan Slingsby. **Rethinking Map Legends with Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.191](https://doi.org/10.1109/TVCG.2010.191)

Robert Kincaid. **SignalLens: Focus+Context Applied to Electronic Time Series.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2010.193](https://doi.org/10.1109/TVCG.2010.193)

Gennady Andrienko, Natalia Andrienko, Martin Mladenov, Michael Mock, Christian Pöllitz. **Discovering bits of place histories from people's activity traces.** Awarded at: VAST. DOI: [10.1109/VAST.2010.5652478](https://doi.org/10.1109/VAST.2010.5652478)

Petra Isenberg, Danyel Fisher, Meredith Ringel Morris, Kori Inkpen, Mary Czerwinski. **An exploratory study of co-located collaborative visual analytics around a tabletop**

display. Awarded at: VAST. DOI: [10.1109/VAST.2010.5652880](https://doi.org/10.1109/VAST.2010.5652880)

Silvia Born, Alexander Wiebel, Jan Friedrich, Gerik Scheuermann, Dirk Bartz. **Illustrative**

Stream Surfaces. Awarded at: Vis. DOI: [10.1109/TVC.2010.166](https://doi.org/10.1109/TVC.2010.166)

Jurgen Waser, Raphael Fuchs, Hrvoje Ribicic, Benjamin Schindler, Gunther Bloschl,

Eduard Groller. **World Lines.** Awarded at: Vis. DOI: [10.1109/TVC.2010.223](https://doi.org/10.1109/TVC.2010.223)

Test of Time Award:

Edward Segel, Jeffrey Heer. **Narrative Visualization: Telling Stories with Data.** Awarded

at: InfoVis. DOI: [10.1109/TVC.2010.179](https://doi.org/10.1109/TVC.2010.179)

Jaegul Choo, Hanseung Lee, Jaeyeon Kihm, Haesun Park. **iVisClassifier: An interactive visual analytics system for classification based on supervised dimension reduction.**

Awarded at: VAST. DOI: [10.1109/VAST.2010.5652443](https://doi.org/10.1109/VAST.2010.5652443)

2009

Best Paper Awards:

Cydney B. Nielsen, Shaun D. Jackman, Inanç Birol, Steven J.M. Jones. **ABySS-Explorer: Visualizing Genome Sequence Assemblies.** Awarded at: InfoVis. DOI:

[10.1109/TVC.2009.116](https://doi.org/10.1109/TVC.2009.116)

Frank van Ham, Martin Wattenberg, Fernanda B. Viegas. **Mapping Text with Phrase Nets.**

Awarded at: InfoVis. DOI: [10.1109/TVC.2009.165](https://doi.org/10.1109/TVC.2009.165)

Steffen Koch, Harald Bosch, Mark Giereth, Thomas Ertl. **Iterative integration of visual insights during patent search and analysis.** Awarded at: VAST. DOI:

[10.1109/VAST.2009.5333564](https://doi.org/10.1109/VAST.2009.5333564)

Maarten H. Everts, Henk Bekker, Jos B.T.M. Roerdink, Tobias Isenberg. **Depth-Dependent Halos: Illustrative Rendering of Dense Line Data.** Awarded at: Vis. DOI:

[10.1109/TVC.2009.138](https://doi.org/10.1109/TVC.2009.138)

Honorable Mention Awards:

Aidan Slingsby, Jason Dykes, Jo Wood. **Configuring Hierarchical Layouts to Address Research Questions.** Awarded at: InfoVis. DOI: [10.1109/TVC.2009.128](https://doi.org/10.1109/TVC.2009.128)

Michael J. McGuffin, Igor Jurisica. **Interaction Techniques for Selecting and Manipulating Subgraphs in Network Visualizations.** Awarded at: InfoVis. DOI:

[10.1109/TVC.2009.151](https://doi.org/10.1109/TVC.2009.151)

Miriah Meyer, Tamara Munzner, Hanspeter Pfister. **MizBee: A Multiscale Synteny Browser.** Awarded at: InfoVis. DOI: [10.1109/TVC.2009.167](https://doi.org/10.1109/TVC.2009.167)

Zhicheng Liu, John Stasko, Timothy Sullivan. **SellTrend: Inter-Attribute Visual Analysis of Temporal Transaction Data.** Awarded at: InfoVis. DOI: [10.1109/TVC.2009.180](https://doi.org/10.1109/TVC.2009.180)

Michael Krone, Katrin Bidmon, Thomas Ertl. **Interactive Visualization of Molecular Surface Dynamics.** Awarded at: Vis. DOI: [10.1109/TVC.2009.157](https://doi.org/10.1109/TVC.2009.157)

Behzad Sajadi, Aditi Majumder. **Markerless View-Independent Registration of Multiple Distorted Projectors on Extruded Surfaces Using an Uncalibrated Camera.** Awarded at: Vis. DOI: [10.1109/TVC.2009.166](https://doi.org/10.1109/TVC.2009.166)

Ming-Yuen Chan, Yingcai Wu, Wai-Ho Mak, Wei Chen, Huamin Qu. **Perception-Based Transparency Optimization for Direct Volume Rendering.** Awarded at: Vis. DOI:

[10.1109/TVC.2009.172](https://doi.org/10.1109/TVC.2009.172)

Test of Time Award:

Tamara Munzner. **A Nested Model for Visualization Design and Validation.** Awarded at:

InfoVis. DOI: [10.1109/TVC.2009.111](https://doi.org/10.1109/TVC.2009.111)

Christopher Collins, Fernanda B. Viegas, Martin Wattenberg. **Parallel Tag Clouds to explore and analyze faceted text corpora.** Awarded at: VAST. DOI:

2008

Best Paper Awards:

Niklas Elmquist, Pierre Dragicevic, Jean-Daniel Fekete. **Rolling the Dice: Multidimensional Visual Exploration using Scatterplot Matrix Navigation.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2008.153](https://doi.org/10.1109/TVCG.2008.153)

Eric A. Bier, Stuart K. Card, John W. Bodnar. **Entity-based collaboration tools for intelligence analysis.** Awarded at: VAST. DOI: [10.1109/VAST.2008.4677362](https://doi.org/10.1109/VAST.2008.4677362)

Thomas Schultz, Hans-Peter Seidel. **Estimating Crossing Fibers: A Tensor Decomposition Approach.** Awarded at: Vis. DOI: [10.1109/TVGC.2008.128](https://doi.org/10.1109/TVGC.2008.128)

Honorable Mention Awards:

Heidi Lam. **A Framework of Interaction Costs in Information Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2008.109](https://doi.org/10.1109/TVCG.2008.109)

Lee Byron, Martin Wattenberg. **Stacked Graphs - Geometry & Aesthetics.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2008.166](https://doi.org/10.1109/TVCG.2008.166)

Caroline Ziemkiewicz, Robert Kosara. **The Shaping of Information by Visual Metaphors.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2008.171](https://doi.org/10.1109/TVCG.2008.171)

Test of Time Award:

George Robertson, Roland Fernandez, Danyel Fisher, Bongshin Lee, John Stasko. **Effectiveness of Animation in Trend Visualization.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2008.125](https://doi.org/10.1109/TVCG.2008.125)

2007

Best Paper Awards:

Yuri Ivanov, Christopher Wren, Alexander Sorokin, Ishwinder Kaur. **Visualizing the History of Living Spaces.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2007.70621](https://doi.org/10.1109/TVCG.2007.70621)

Carlos Scheidegger, Huy Vo, David Koop, Juliana Freire, Claudio Silva. **Querying and Creating Visualizations by Analogy.** Awarded at: Vis. DOI: [10.1109/TVCG.2007.70584](https://doi.org/10.1109/TVCG.2007.70584)

Test of Time Award:

Fernanda B. Viegas, Martin Wattenberg, Frank van Ham, Jesse Kriss, Matt McKeon. **ManyEyes: a Site for Visualization at Internet Scale.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2007.70577](https://doi.org/10.1109/TVCG.2007.70577)

John Stasko, Carsten Gorg, Zhicheng Liu, Kanupriya Singhal. **Jigsaw: Supporting Investigative Analysis through Interactive Visualization.** Awarded at: VAST. DOI: [10.1109/VAST.2007.4389006](https://doi.org/10.1109/VAST.2007.4389006)

2006

Best Paper Awards:

Danny Holten. **Hierarchical Edge Bundles: Visualization of Adjacency Relations in Hierarchical Data.** Awarded at: InfoVis. DOI: [10.1109/TVCG.2006.147](https://doi.org/10.1109/TVCG.2006.147)

Carr Hamish, Brian Duffy, Brian Denby. **On Histograms and Isosurface Statistics.** Awarded at: Vis. DOI: [10.1109/TVCG.2006.168](https://doi.org/10.1109/TVCG.2006.168)

Test of Time Award:

Marco Tarini, Paolo Cignoni, Claudio Montani. **Ambient Occlusion and Edge Cueing for Enhancing Real Time Molecular Visualization.** DOI: [10.1109/TVCG.2006.115](https://doi.org/10.1109/TVCG.2006.115)

Danny Holten. **Hierarchical Edge Bundles: Visualization of Adjacency Relations in**

Hierarchical Data. Awarded at: InfoVis. DOI: [10.1109/TVCG.2006.147](https://doi.org/10.1109/TVCG.2006.147)

Jerry Alan Fails, Amy Karlson, Layla Shahamat, Ben Shneiderman. **A Visual Interface for**

Multivariate Temporal Data: Finding Patterns of Events across Multiple Histories.

Awarded at: VAST. DOI: [10.1109/VAST.2006.261421](https://doi.org/10.1109/VAST.2006.261421)

2005

Best Paper Awards:

T. Dwyer, Y. Koren. **Dig-CoLa: directed graph layout through constrained energy minimization.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.2005.1532130](https://doi.org/10.1109/INFVIS.2005.1532130)

J.J. van Wijk. **The value of visualization.** Awarded at: Vis. DOI:

[10.1109/VISUAL.2005.1532781](https://doi.org/10.1109/VISUAL.2005.1532781)

Test of Time Award:

J.J. van Wijk. **The value of visualization.** Awarded at: Vis. DOI:

[10.1109/VISUAL.2005.1532781](https://doi.org/10.1109/VISUAL.2005.1532781)

2004

Best Paper Awards:

R. Amar, J. Stasko. **A Knowledge Task-Based Framework for Design and Evaluation of Information Visualizations.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.2004.10](https://doi.org/10.1109/INFVIS.2004.10)

L.M. Hwa, M.A. Duchaineau, K.I. Joy. **Adaptive 4-8 texture hierarchies.** Awarded at: Vis.

DOI: [10.1109/VISUAL.2004.4](https://doi.org/10.1109/VISUAL.2004.4)

Test of Time Award:

H. Carr, J. Snoeyink, M. van de Panne. **Simplifying flexible isosurfaces using local**

geometric measures. Awarded at: Vis. DOI: [10.1109/VISUAL.2004.96](https://doi.org/10.1109/VISUAL.2004.96)

2003

Best Paper Awards:

J.J. van Wijk, W.A.A. Nuij. **Smooth and efficient zooming and panning.** Awarded at:

InfoVis. DOI: [10.1109/INFVIS.2003.1249004](https://doi.org/10.1109/INFVIS.2003.1249004)

D.C. Banks, S. Linton. **Counting cases in marching cubes: toward a generic algorithm for**

producing substitopes. Awarded at: Vis. DOI: [10.1109/VISUAL.2003.1250354](https://doi.org/10.1109/VISUAL.2003.1250354)

Test of Time Award:

J. Kruger, R. Westermann. **Acceleration techniques for GPU-based volume rendering.**

Awarded at: Vis. DOI: [10.1109/VISUAL.2003.1250384](https://doi.org/10.1109/VISUAL.2003.1250384)

2002

Best Paper Awards:

C. Stolte, D. Tang, P. Hanrahan. **Multiscale visualization using data cubes.** Awarded at:

InfoVis. DOI: [10.1109/INFVIS.2002.1173141](https://doi.org/10.1109/INFVIS.2002.1173141)

Aidong Lu, C.J. Morris, D.S. Ebert, P. Rheingans, C. Hansen. **Non-photorealistic volume**

rendering using stippling techniques. Awarded at: Vis. DOI: [10.1109/VISUAL.2002.1183777](https://doi.org/10.1109/VISUAL.2002.1183777)

Test of Time Award:

V. Pascucci, K. Cole-McLaughlin. **Efficient computation of the topology of level sets.**

Awarded at: Vis. DOI: [10.1109/VISUAL.2002.1183774](https://doi.org/10.1109/VISUAL.2002.1183774)

2001

Best Paper Award:

J. Kniss, G. Kindlmann, C. Hansen. **Interactive volume rendering using multi-dimensional transfer functions and direct manipulation widgets.** Awarded at: Vis. DOI: [10.1109/VISUAL.2001.964519](https://doi.org/10.1109/VISUAL.2001.964519)

Test of Time Award:

Ben Shneiderman & Martin Wattenberg. **Ordered Treemap Layouts.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.2001.963283](https://doi.org/10.1109/INFVIS.2001.963283) Note: Awarded also to Ben Bederson under consideration of the follow-up journal article "Ordered and Quantum Treemaps: Making effective use of 2D space to display hierarchies. Benjamin B. Bederson, Ben Shneiderman, Martin Wattenberg. ACM TOG 21(4):833-854 2002. DOI: [10.1145/571647.571649](https://doi.org/10.1145/571647.571649)."

2000

Best Paper Award:

D. Ebert, P. Rheingans. **Volume illustration: non-photorealistic rendering of volume models.** Awarded at: Vis. DOI: [10.1109/VISUAL.2000.885694](https://doi.org/10.1109/VISUAL.2000.885694)

Test of Time Award:

C. Stolte, P. Hanrahan. **Polaris: a system for query, analysis and visualization of multi-dimensional relational databases.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.2000.885086](https://doi.org/10.1109/INFVIS.2000.885086)

1999

Best Paper Award:

G. Kindlmann, D. Weinstein. **Hue-balls and lit-tensors for direct volume rendering of diffusion tensor fields.** Awarded at: Vis. DOI: [10.1109/VISUAL.1999.809886](https://doi.org/10.1109/VISUAL.1999.809886)

Test of Time Award:

J.J. Van Wijk, E.R. Van Selow. **Cluster and calendar based visualization of time series data.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.1999.801851](https://doi.org/10.1109/INFVIS.1999.801851)

1998

Best Paper Award:

S. Parker, P. Shirley, Y. Livnat, C. Hansen, P.-P. Sloan. **Interactive ray tracing for isosurface rendering.** Awarded at: Vis. DOI: [10.1109/VISUAL.1998.745713](https://doi.org/10.1109/VISUAL.1998.745713)

Best Case Study Awards:

P.D. Heermann. **Production visualization for the ASCI One TeraFLOPS machine.** Awarded at: Vis. DOI: [10.1109/VISUAL.1998.745343](https://doi.org/10.1109/VISUAL.1998.745343)

Test of Time Award:

Ed Huai-Hsin Chi, J.T. Riedl. **An operator interaction framework for visualization systems.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.1998.729560](https://doi.org/10.1109/INFVIS.1998.729560)

1997

Best Paper Award:

J.E. Swan, K. Mueller, T. Moller, N. Shareel, R. Crawfis, R. Yagel. **An anti-aliasing technique for splatting.** Awarded at: Vis. DOI: [10.1109/VISUAL.1997.663882](https://doi.org/10.1109/VISUAL.1997.663882)

Best Case Study Awards:

D. Kenwright, R. Haimes. **Vortex identification-applications in aerodynamics: a case study.** Awarded at: Vis. DOI: [10.1109/VISUAL.1997.663910](https://doi.org/10.1109/VISUAL.1997.663910)

Test of Time Award:

S.K. Card, J. Mackinlay. **The structure of the information visualization design space.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.1997.636792](https://doi.org/10.1109/INFVIS.1997.636792)

1996

Best Paper Award:

M. Zockler, D. Stalling, H.-C. Hege. **Interactive visualization of 3D-vector fields using illuminated stream lines.** Awarded at: Vis. DOI: [10.1109/VISUAL.1996.567777](https://doi.org/10.1109/VISUAL.1996.567777)

Best Case Study Awards:

M. Roth, R. Peikert. **Flow visualization for turbomachinery design.** Awarded at: Vis. DOI: [10.1109/VISUAL.1996.568137](https://doi.org/10.1109/VISUAL.1996.568137)

Test of Time Award:

S.F. Roth, P. Lucas, J.A. Senn, C.C. Gomberg, M.B. Burks, P.J. Stroffolino, A.J. Kolojechick, C. Dunmire. **Visage: a user interface environment for exploring information.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.1996.559210](https://doi.org/10.1109/INFVIS.1996.559210)

William J. Schroeder, Kenneth M. Martin, William E. Lorensen. **The Design and Implementation of an Object-Oriented Toolkit for 3D Graphics and Visualization.** Awarded at: Vis. DOI: [10.1109/VISUAL.1996.567752](https://doi.org/10.1109/VISUAL.1996.567752). Awarded under consideration of the follow-up book: "The Visualization Toolkit: an Object-Oriented Approach to 3D Graphics." Will Schroeder, Ken Martin, Bill Lorensen.

1995

Test of Time Award:

J.A. Wise, J.J. Thomas, K. Pennock, D. Lantrip, M. Pottier, A. Schur, V. Crow. **Visualizing the non-visual: spatial analysis and interaction with information from text documents.** Awarded at: InfoVis. DOI: [10.1109/INFVIS.1995.528686](https://doi.org/10.1109/INFVIS.1995.528686)

A.R. Martin, M.O. Ward. **High Dimensional Brushing for Interactive Exploration of Multivariate Data.** Awarded at: Vis. DOI: [10.1109/VISUAL.1995.485139](https://doi.org/10.1109/VISUAL.1995.485139)

1994

Best Paper Awards:

L.K. Forssell. **Visualizing flow over curvilinear grid surfaces using line integral convolution.** Awarded at: Vis. DOI: [10.1109/VISUAL.1994.346313](https://doi.org/10.1109/VISUAL.1994.346313)

T. Delmarcelle, L. Hesselink. **The topology of symmetric, second-order tensor fields.** Awarded at: Vis. DOI: [10.1109/VISUAL.1994.346326](https://doi.org/10.1109/VISUAL.1994.346326)

Best Case Study Awards:

G. Sakas, L.-A. Schreyer, M. Grimm. **Visualization of 3D ultrasonic data.** Awarded at: Vis. DOI: [10.1109/VISUAL.1994.346294](https://doi.org/10.1109/VISUAL.1994.346294)

Test of Time Award:

S.R. Marschner, R.J. Lobb. **An evaluation of reconstruction filters for volume rendering.** Awarded at: Vis. DOI: [10.1109/VISUAL.1994.346331](https://doi.org/10.1109/VISUAL.1994.346331)

1993

Best Paper Awards:

R.A. Crawfis, N. Max. **Texture splats for 3D scalar and vector field visualization.** Awarded at: Vis. DOI: [10.1109/VISUAL.1993.398877](https://doi.org/10.1109/VISUAL.1993.398877)

W.E. Lorensen. **Geometric clipping using Boolean textures.** Awarded at: Vis. DOI: [10.1109/VISUAL.1993.398878](https://doi.org/10.1109/VISUAL.1993.398878)

Best Case Study Awards:

W. Lorensen, H. Cline, C. Nafis, R. Kikinis, D. Altobelli, L. Gleason. **Enhancing reality in the operating room.** Awarded at: Vis. DOI: [10.1109/VISUAL.1993.398902](https://doi.org/10.1109/VISUAL.1993.398902)

Test of Time Award:

R.A. Crawfis, N. Max. **Texture splats for 3D scalar and vector field visualization.** Awarded at: Vis. DOI: [10.1109/VISUAL.1993.398877](https://doi.org/10.1109/VISUAL.1993.398877)

1992

Best Paper Award:

T. Delmarcelle, L. Hesselink. **Visualization of second order tensor fields and matrix data.** Awarded at: Vis. DOI: [10.1109/VISUAL.1992.235193](https://doi.org/10.1109/VISUAL.1992.235193)

Test of Time Award:

T. Delmarcelle, L. Hesselink. **Visualization of second order tensor fields and matrix data.** Awarded at: Vis. DOI: [10.1109/VISUAL.1992.235193](https://doi.org/10.1109/VISUAL.1992.235193)

1991

Best Paper Award:

S. Bryson, C. Levit. **The virtual windtunnel: An environment for the exploration of three-dimensional unsteady flows.** Awarded at: Vis. DOI: [10.1109/VISUAL.1991.175771](https://doi.org/10.1109/VISUAL.1991.175771)

1990

Best Paper Award:

J.L. Helman, L. Hesselink. **Surface representations of two- and three-dimensional fluid flow topology.** Awarded at: Vis. DOI: [10.1109/VISUAL.1990.146359](https://doi.org/10.1109/VISUAL.1990.146359)

Problems with this webpage? Contact archive@ieeveis.org file a bug or suggest a fix



THE PREMIER FORUM FOR ADVANCES IN
VISUALIZATION AND VISUAL ANALYTICS

PAST YEARS ARCHIVE

2023 · 2022 · 2021 · 2020 · 2019 · 2018
2017 · 2016 · 2015 · 2014 · 2013 · 2012
2011 · 2010 · 2009 · 2008 · 2007 · 2006
2005 · 2004 · 2003 · 2002 · 2001 · 2000
1999 · 1998 · 1997 · 1996

SOCIAL MEDIA

Mastodon
Facebook
X (Twitter)

