2015 IEEE 5th Symposium on Large Data Analysis and Visualization (LDAV 2015)

Chicago, Illinois, USA
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Papers

Session: Feature Extraction and Tracking

In Situ Depth Maps Based Feature Extraction and Tracking .................................................................
Yucong (Chris) Ye, Yang Wang, Robert Miller, Kwan-Liu Ma, Kenji Ono

Tracking Features in Embedded Surfaces: Understanding Extinction in Turbulent Combustion ..................
Wathsala Widanagamaachchi, Pavol Klacansky, Hemanth Kolla, Ankit Bhagatwala, Jackie Chen, Valerio Pascucci, Peer-Timo Bremer

Fast Uncertainty-driven Large-scale Volume Feature Extraction on Desktop PCs ........................................
Jinrong Xie, Franz Sauer, Kwan-Liu Ma

Session: Scientific Visualization Algorithms

Cylindrical Acceleration Structures for Large Hexahedral Volume Visualization ........................................
Junpeng Wang, Mai Elshehaly, Yong Cao

Flying Edges: A High-Performance Scalable Isocontouring Algorithm ....................................................
William Schroeder, Robert Maynard, Berk Geveci

Lagrangian Representations of Flow Fields with Parameter Curves ......................................................
Roxana Bujack, Kenneth I. Joy

Session: Aggregation and Binning I

A Compact Multivariate Histogram Representation for Query-driven Visualization ..................................
Kewei Lu, Han-Wei Shen

A Visual Analytics Paradigm Enabling Trillion-Edge Graph Exploration ....................................................
Pak Chung Wong, David Haglin, David Gillen, Daniel Chavarria, Vito Castellana, Cliff Joslyn, Alan Chappell, Song Zhang

Scalable Visualization of Discrete Velocity Decompositions Using Spatially Organized Histograms ................
Tyson Neuroth, Franz Sauer, Weixing Wang, Stephane Ethier, Kwan-Liu Ma

Session: Exascale Visualization

Exploring Tradeoffs Between Power and Performance for a Scientific Visualization Algorithm ....................
Stephanie Labasan, Matthew Larsen, Hank Childs

Evaluating the Efficacy of Wavelet Configurations on Turbulent-Flow Data .............................................
Shaomeng Li, Kenny Gruchalla, Kristin Potter, John Clyne, Hank Childs

Utilizing Many-Core Accelerators for Halo and Center Finding within a Cosmology Simulation ..................
Christopher Sewell, Li-ta Lo, Katrin Heitmann, Salman Habib, James Ahrens

Session: Aggregation and Binning II

Large Interactive Visualization of Density Functions on Big Data Infrastructure ........................................
Alexandre Perrot, Romain Bourqui, Nicolas Hanusse, Frédéric Lalanne, David Auber

Bandlimited OLAP Cubes for Interactive Big Data Visualization ............................................................
Caleb Reach, Chris North
A Visualization Pipeline for Large-Scale Tractography Data  
James Kress, Erik Anderson, Hank Childs

Posters

Vispark: GPU-Accelerated Distributed Visual Computing Using Spark  
Woohyuk Choi, Won-Ki Jeong

Fuzzy Clustering of Network Traffic Features for Security  
Terrence P. Fries

Skdive: An Interactive Data Visualization Engine  
Jarek Gryz, Parke Godfrey, Piotr Lasek, Nasim Razavi

ViQAP: Visualizing Quality Aspects of Public Transportation between Cities in a Region  
Aamir Islam, Ragaad AlTarawneh, Shah Rukh Humayoun, Sascha Baron, Achim Ebert

Streaming Ultra High Resolution Images to Large Tiled Display at Nearly Interactive Frame Rates with vl3  
Jie Jiang, Mark Hereld, Joseph Insley, Michael E. Papka, Silvio Rizzi, Thomas Uram, Venkatram Vishwanath

Distributed Aggregate Computation between Server and Client for Interactive Visualization  
Xinxiao Li, Kuroda Akira, Hidenori Matsuzaki, Nobuyasu Nakajima

Advanced Aggregate Computation for Large Data Visualization  
Xinxiao Li, Kuroda Akira, Hidenori Matsuzaki, Nobuyasu Nakajima

CEDARS: Combined Exploratory Data Analysis Recommender System  
Mark A. Livingston, Stephen Russell, Jonathan W. Decker, Eric Leadbetter, Antonio Gilliam

Large-Scale Co-Visualization for LAMMPS using vl3  
Silvio Rizzi, Mark Hereld, Joseph Insley, Michael E. Papka, Thomas Uram, Venkatram Vishwanath

Tracking Space-Filling Structures in Turbulent Flows  
Andrea Schnorr, Jens Henrik Göbbert, Torsten W. Kuhlen, Bernd Hentschel

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