

Visualization and Data Analysis 2015

David L. Kao Ming C. Hao Mark A. Livingston Thomas Wischgoll Editors

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- Graphs and Exploratory Data Visualization I
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- 3 Graphs and Exploratory Data Visualization II Alark Joshi, University of San Francisco (United States)
- 4 Human Factors **Guoning Chen**, University of Houston (United States)
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- 8 Visualization Evaluation Ming C. Hao, Hewlett-Packard Laboratories (United States)
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- 10 Multi-Dimensional Data Visualization Alark Joshi, University of San Francisco (United States)

Posters Fast Forward I Christopher D. Shaw, Simon Fraser University (Canada)

Poster Fast Forward II **Guoning Chen**, University of Houston (United States)

Introduction

This volume represents the proceedings of the 22nd annual IS&T/SPIE Conference on Visualization and Data Analysis (VDA), held February 9-12, 2015, at the Hilton San Francisco on Union Square, California. This year the conference is held in conjunction with IS&T/SPIE Electronic Imaging (EI) 2015 Symposium.

The first VDA conference was held in San Jose, California, in 1993 under its former name, Visual Data Exploration and Analysis. From its beginnings as an informal gathering of researchers in data visualization and analysis, the VDA conference continues to serve as an ideal forum for researchers to present their latest research work. This year we received submissions from several countries, including Austria, Germany, Japan, United Kingdom, Luxembourg, and Sweden, in addition to the United States. All submissions were reviewed by at least three members of our international program committee. From those reviews, 19 papers were accepted for full paper presentations, and six papers were accepted as poster papers. A unique feature of the VDA conference is that authors of poster papers are allowed time to present their poster papers in addition to the traditional poster presentations.

Two distinguished researchers are invited to speak at VDA 2015: Dr. Peter Nugent is a Division Deputy in the Computational Research Division at the Lawrence Berkeley National Laboratory, and specializes in the use of high-performance computing to tackle problems spanning data analysis and theoretical simulation in cosmology and astrophysics. Prof. Ken Joy is a professor in the Computer Science Department at the University of California at Davis. Prof. Joy is also the Director of the Institute for Data Analysis and Visualization (IDAV) at UC Davis, and his research and teaching interests are in the areas of visualization, geometric modeling, and computer graphics.

The best-paper chairs selected three best papers. The three best VDA 2015 papers are:

- 1. [9397-1] An Evaluation-Guided Approach for Effective Data Visualization On Tablets
- 2. [9397-5] iGraph: A Graph-Based Technique for Visual Analytics of Image and Text Collections
- 3. [9397-6] Exploring Hierarchical Visualization Designs Using Phylogenetic Trees

We would like to thank the conference co-chairs, E. Wes Bethel, Alark Joshi, Ian Roberts, and Christopher Shaw, for their support in various aspects of the conference. We also thank the members of the program committee for their efforts in reviewing the submissions under a tight schedule. We are thankful to Kitware, SPIE, and IS&T for sponsoring the conference.

David L. Kao Ming C. Hao Mark A. Livingston Thomas Wischgoll