KEYNOTE TALK
Tuesday, July 30, 2013
8:30AM-9:30AM

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Visualization Research Trends

Thomas Ertl
Visualization Research Center
University of Stuttgart, Germany

Abstract

Visualization is a major area of visual computing focusing on displaying and graphically exploring abstract information. Driven by the ever increasing amounts of data generated by sensors, simulations and digital events interactive visual analysis plays an increasingly important role in organizing, understanding and communicating the information hidden in these data sets. This talk will give an overview of the field and look at current research trends from the perspective of the Visualization Research Institute of the University Stuttgart (VISUS). The examples will cover visualization of bio-molecular and higher order finite element simulations, visual analytics of text and social media and our high-resolution PowerWall.

Speaker Bio-Sketch: Thomas Ertl received a MSc degree in computer science from the University of Colorado at Boulder and a PhD in theoretical astrophysics from the University of Tuebingen. Currently, Dr. Ertl is a full professor of computer science at the University of Stuttgart, Germany and the head of the Visualization and Interactive Systems Institute (VIS) and the Visualization Research Center (VISUS). His research interests include visualization, computer graphics and human computer interaction in general with a focus on volume rendering, flow and particle data, parallel and hardware accelerated graphics, large datasets and interactive steering, visual analytics of text and trajectories, user interfaces and navigation systems for the blind. Dr. Ertl is coauthor of more than 300 scientific publications and he has been a member of numerous program committees and a paper co-chair for several conferences (e.g. Eurographics, IEEE Visualization, EuroVis, PacificVis, VAST, Volume Graphics). Dr. Ertl served as Editor-in-Chief of the IEEE Transactions on Visualization and Graphics and as Chairman of the Eurographics Association. He received the Outstanding Technical Contribution Award of the Eurographics Association and the Technical Achievement Award of the IEEE Visualization and Graphics Technical Committee in 2006 and he was elected as a Member of the Heidelberg Academy of Sciences and Humanities in 2007. He was awarded an honorary doctorate from Vienna University of Technology in 2011.