

## Global Summit and Expo on Multimedia & Applications

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## Multimedia meets visualization

With advancements in multimedia and data storage technologies and the ever-decreasing costs of hardware, our ability to generate and store multimedia data is unprecedented. However, a large gap remains between our ability to generate and store large collections of complex, time-dependent multimedia data and our ability to derive useful knowledge from it. Viewing multimedia as a data source, data visualization exploits our most powerful sense, vision, in order to derive knowledge and gain insight into large, multimedia data sets that describe complicated and often time-dependent events. This talk presents a selection of state-of-the art visualization techniques and applications applied to multimedia in order to explore, analyze, and present video data. In this case, we show how glyph-based visualization can be used to convey the most important information and events from videos of rugby games. The talk showcases some of visualization's strengths, weaknesses, and, goals. We describe inter-disciplinary case-study based on rugby sports analytics, where visualization is used to address fundamental questions, the answers of which we hope to discover in various large, complex, and time-dependent multimedia data.

## **Biography**

Robert S Laramee received a Bachelor's degree in Physics, from the University of Massachusetts, Amherst (ZooMass). He received a Master's degree in Computer Science from the University of New Hampshire, Durham. He completed his PhD from Vienna University of Technology (Gruess Gott TUWien), Austria at the Institute of Computer Graphics and Algorithms. He was a Researcher at the VRV is Research Center and a Software Engineer at AVL in the Department of Advanced Simulation Technologies. Currently, he is an Associate Professor in Data Visualization at Swansea University (Prifysgol Cymru Abertawe), Wales in the Department of Computer Science (Adran Gwyddor Cyfrifiadur). His research interests are in the areas of big data visualization, visual analytics, and human-computer interaction. He has published more than 100 peer-reviewed papers in scientific conferences and journals and served as Conference Chair of EuroVis, the premiere conference on data visualization in Europe.

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