Visualization in Science and Education
Gordon Research Conference

Transformation by Visualization: Radical Effects on Learning in Science and Across Education

July 10 - 15, 2011

Chairs
Elizabeth M. Dorland and Ghislain Deslongchamps

Vice Chairs
Martin Storksdieck and Brian E. Martin

Bryant University
1150 Douglas Pike
Smithfield, RI, US

Venue and Travel Information

Conference Description

The 2011 Gordon Conference on Visualization in Science and Education will continue to challenge our vibrant and cohesive interdisciplinary community to explore how visualizations of data, concepts and phenomena (from simple to highly complex) can be best be used to increase understanding and facilitate learning at all levels. The immense computational power, large data sets, and online tools that are now available to all disciplines and even the general public are dramatically changing what can be visualized and even the very process of creation.

We will address some of the profound ways in which visualization is redefining the shapes and roles of communities within science as well as enabling and challenging the historical practices of science and science education. We must begin to investigate and incorporate some of the new social, collaborative, and immersive online environments that are creating new kinds of scientific communities that impact research and learning.

Invited speakers will present their research and perspectives on the creation and use of visualizations represented in 2D and 3D space to see and understand natural phenomena across the scale of the cosmos - from quarks to quasars - and including virtual environments, games, and simulations.

A particular emphasis on the integration of cognitive scientists and educational researchers into each session will facilitate group discussions and conversations on issues that go beyond creation and application. The structure provided for creating new international and interdisciplinary research teams during the week is unique to this conference.

Given the increasing rate of change in society, addressing the social nature of learning and research is increasingly important. Including perspectives from history, philosophy, and sociology of science and education will facilitate a deeper exploration of the social nature of science and learning as well as the potential impact on society.

Attendees will include professional scientists and researchers from government, academia, and business/industry, high school and college teachers, museum professionals, artists, designers, publishers, and more. Disciplines cross the spectrum of physical and biological sciences, cognitive and neurosciences, computer science, engineering, mathematics, geosciences, psychology and social sciences, and science education research. Informal discussions among all constituencies that occur during the unstructured afternoons and poster sessions are an important feature of all Gordon Conferences.

For more detailed information about this meeting, please visit the Chair's Web Site.

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