

# Shaping Collaboration 2006

## Shaping the Future of Collaboration in Global Science Projects

### The Event

**Shaping Collaboration 2006** was a 3-day conference held at the CIG in Geneva, Dec 11-13, 2006.

<http://cern.ch/ShapingCollab2006>

### The Participants

Workshop on Advanced Collaborative Environments

Workshop on Collaborative Tools for the LHC

100 Local and Remote Participants from Around the Globe

### The Goal

*"...bring together members of the user community of the CERN Large Hadron Collider with researchers and practitioners in the area of advanced collaborative tools [to] focus on ways these communities can work together to advance research in collaboration while meeting the needs of global science projects."*

#### Shaping the Future of Collaboration in Global Science Projects

A Conference Sponsored by the  
Workshop on Advanced Collaborative Environments  
and  
CERN Large Hadron Collider Users

December 11 - 13, 2006  
International Conference Centre Geneva

Shaping the Future of Collaboration in Global Science Projects (Shaping Collaboration 2006) will bring together members of the user community of the CERN Large Hadron Collider with researchers and practitioners in the area of advanced collaborative tools. This three day conference will focus on ways these communities can work together to advance research in collaboration while meeting the needs of global science projects.

Session topics will include:  
The Human Component of Collaboration  
Views from the LHC  
The Impact of Geography  
Collaborative Tools and Developing Countries  
Collaborative Tools, Education and Training  
A Vision for the Future  
Funding Models and Strategies for Collaborative Tool Support  
in Scientific Projects  
Frontiers in Collaborative Tool Research (WACE 2006)\*

The goal of this conference will be to enable users of the Large Hadron Collider and advanced collaborative technology researchers to work together to shape the trajectory of the collaborative capabilities that are available to global science projects.

For more information on Shaping Collaboration 2006 please visit the conference website at <http://cern.ch/ShapingCollab2006>

\*WACE 2006 - Sixth Annual Workshop on Advanced Collaborative Environments will focus on the research, technological, and social issues of developing persistent collaboration infrastructure. Position papers are being solicited on topics including, but not limited to, the following:  
-High-end, high-value solutions collaboration technologies  
-Removal of barriers to more rapid adoption of high-end technologies  
-Roadmaps for development of high-end collaborative technologies  
-Tools for monitoring and evaluating the performance of collaborations  
-Applications of collaborative technologies in science, engineering or the humanities

For more information regarding the WACE 2006 program, please see <http://www.mcs.anl.gov/wace/>



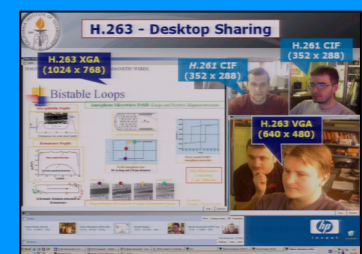
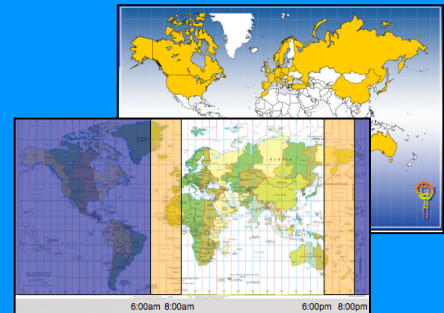
### Conference Organizing Committee

Reinhard Eisberg, *DESY IT*  
Philippe Galvez, *California Institute of Technology*  
Steven Goldfarb, *University of Michigan*  
Jeremy Herr, *University of Michigan*  
Erik Hofer, *Univ. of Michigan, School of Information*  
Tatsuo Kawamoto, *ICEPP, University of Tokyo*  
Homer A. Neal, *University of Michigan (Chair)*  
Harvey Newman, *California Institute of Technology*  
Mick Storr, *CERN DSU/ED*



### The LHC Sessions

- Welcome (J. Engelen - CERN Deputy Director General of Science)
- Keynote (D. van Houweling - Director, Internet2)
- Reflections on the Development of the Web: The Goal of Scientific Collaboration (R. Cailliau - CERN)
- Intergroup Protocols and Human Collaboration (D. Agarwal - LBNL)
- Theory of Remote Scientific Collaboration (E. Hofer - Michigan)
- Collaboration in Context (M. Wessner - Fraunhofer Institute)
- Beyond HEP - Experiences from UK eScience (A. Parker - Cambridge eScience Centre)
- CMS Plans for Centres (L. Taylor - Northeastern)
- Plans for the USCMS Remote Operations Center (E. Gottschalk - FNAL)
- An Overview of the ATLAS Experiment and the Role of Collaborative Tools in Scientific Discovery (S. Stapnes - ATLAS Deputy Project Leader)
- Collaborative Tools in a Grid Environment (R. Cavanaugh - Florida)
- RTAG 12: An Assessment of the Collaborative Tool Needs of the LHC (S. Goldfarb - Michigan)
- Collaborative Tool Plans at CERN (T. Smith - CERN)
- The Impact of Distance and Time in Large Scientific Collaborations (H. Sakamoto - ICEPP, Tokyo)
- The Importance of Collaborative Tools in Developing Countries (A. Luo - Michigan)
- Maximizing Returns on National Investments (D. Atkins - U.S. NSF Office of CyberInfrastructure)
- Collaborative Tools, Education and Training (J. Hardin - Sakai Project)
- Enabling Virtual Organizations (EVO) (P. Galvez - Caltech)
- Web Lecture Archiving, Robotic Tracking Systems, and the Lecture Object (J. Herr - University of Michigan)
- MVL, a Tool to Support Maintaining, Optimizing, and Trouble Shooting Accelerator Components from Off-Site (R. Pugliese - ELETTRA, Trieste)
- ConferenceXP: Shaping the Future of Collaboration (T. Needham - Microsoft Research)
- A Vision of Collaboration at the High Energy Frontier in the LHC Era (H. Newman - Caltech)
- Using OpenGL and 3D to Manage Large Numbers of Video Conferencing Streams (P. Farkas - Caltech)
- Collaborative Tools and the Management of Large Experiments (M. Nordberg - ATLAS Resources Coordinator)
- Grid Enabled Collaborative Tools for Scientific Research (C. Severance - Michigan)



### Key Issues Identified, Outcome and Follow-Up from the Conference

- Identification, Clarification of the Needs of the LHC Collaborations
- Sharing of Experiences Among the LHC User Communities
- Expert Insight of Latest Developments and Future Possibilities:
  - Collaboration Theory
  - Network Infrastructure
  - Grid Technology and Applications
  - Video Conferencing, Lecture Archiving, etc.

- Special Needs of Large-Distance Remote Participation
- The Challenge of Remote Monitoring and Operations
- Panel Discussion on CERN, LHC, and National Funding Policy
- Communication of Conclusions to Management at All Levels:
  - Institutes, Funding Agencies, Project Leaders, CERN
- Increased Commitment from CERN, Experiments
  - Funding, Manpower

Steven Goldfarb, Jeremy Herr, Homer A. Neal - University of Michigan - CHEP 2007 - 5-6 September 2007 - Victoria BC, Canada