

digiteo

Recherche en sciences & technologies de l'information

FORUM 2011

4^E ÉDITION

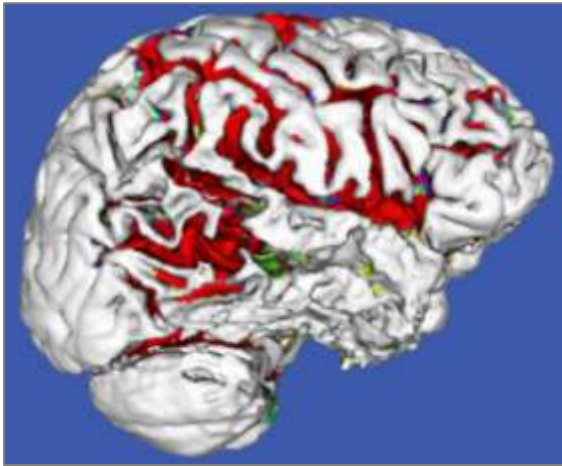
Tobias Isenberg

Interaction & Visualization on Large Displays

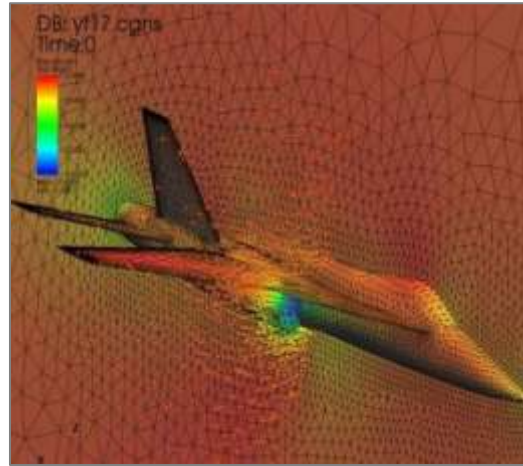


university of
groningen

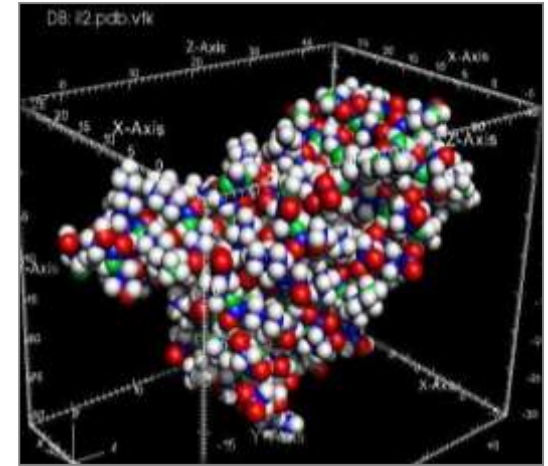
What is (Scientific) Visualization?



UMCG/SVCG



CGNS user community



University of California
Radiation Laboratory

Scientific Visualization: The Problem



- **The Pan-STARRS project will capture 2.5 PB / year**

[Hey et al., The Fourth Paradigm; and <http://pan-starrs.ifa.hawaii.edu/>]



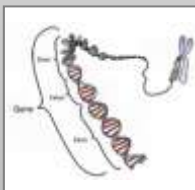
- **The Large Hadron Collider will generate 50-100 PB / year**

[Hey et al., The Fourth Paradigm; and <http://public.web.cern.ch/public/en/lhc/lhc-en.html>]



- **New CT scanners create scans of 1TB per patient**

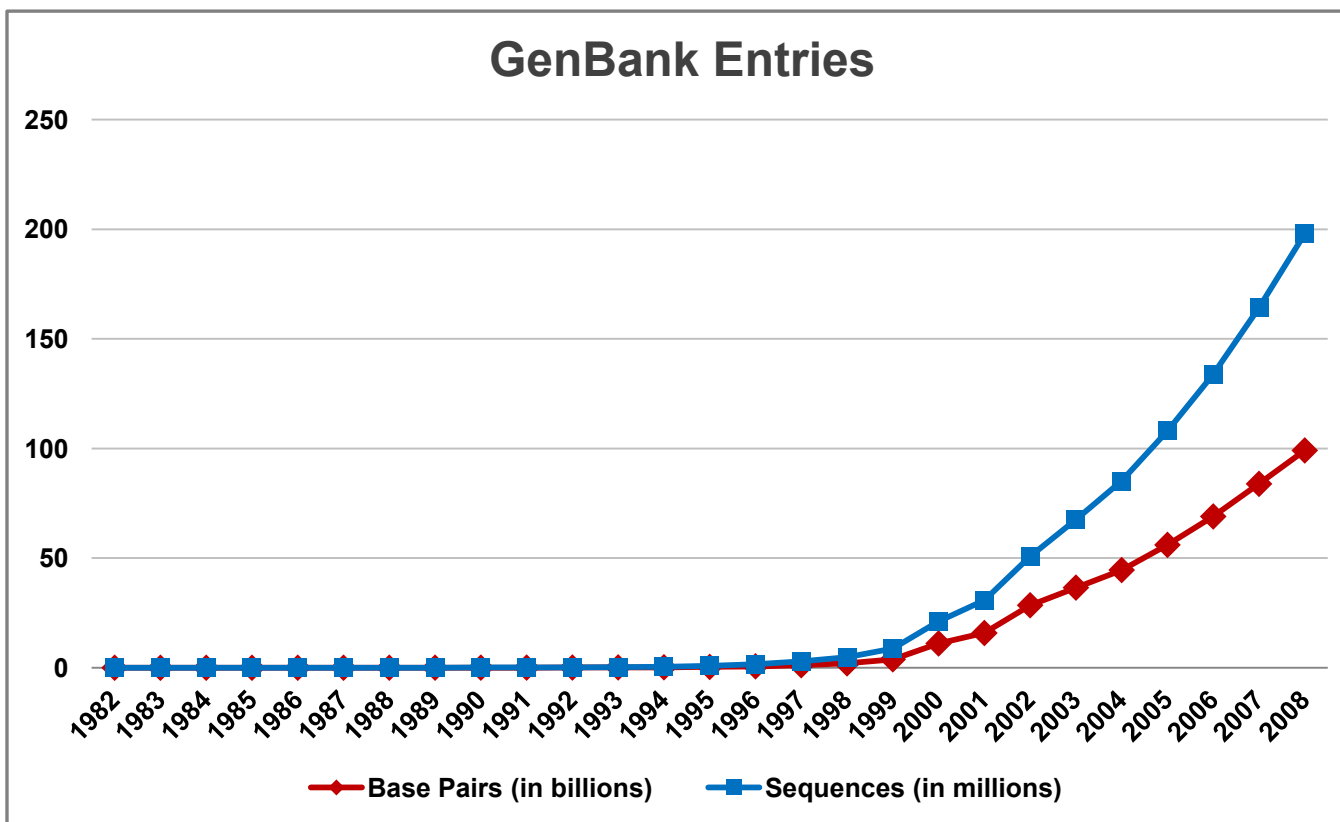
[Ynnerman 2010]



- **100 billion new sequences entered into GenBank / year**

[GenBank]

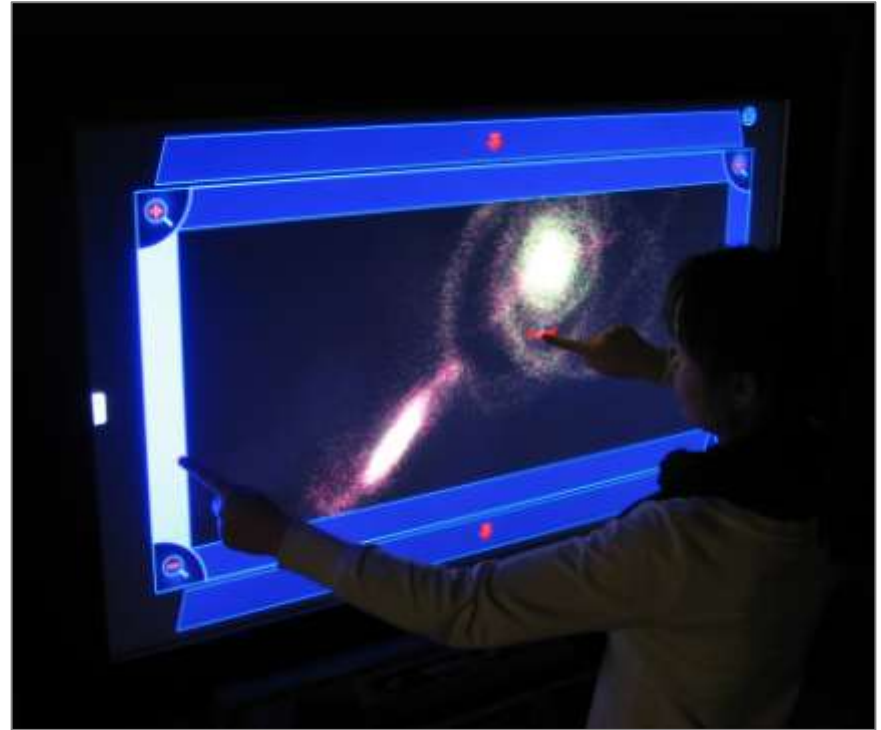
Scientific Visualization: The Problem



The Solution: Interactive Exploration

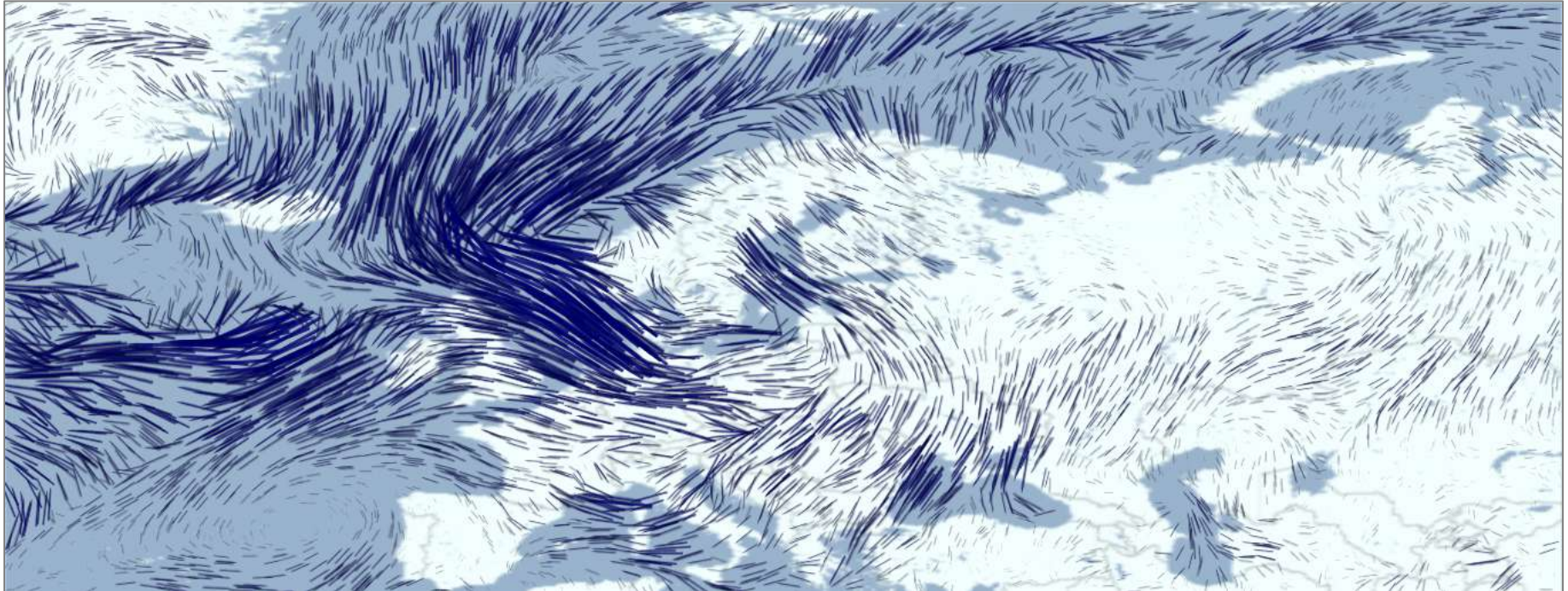


Visualization Center, Univ. Groningen

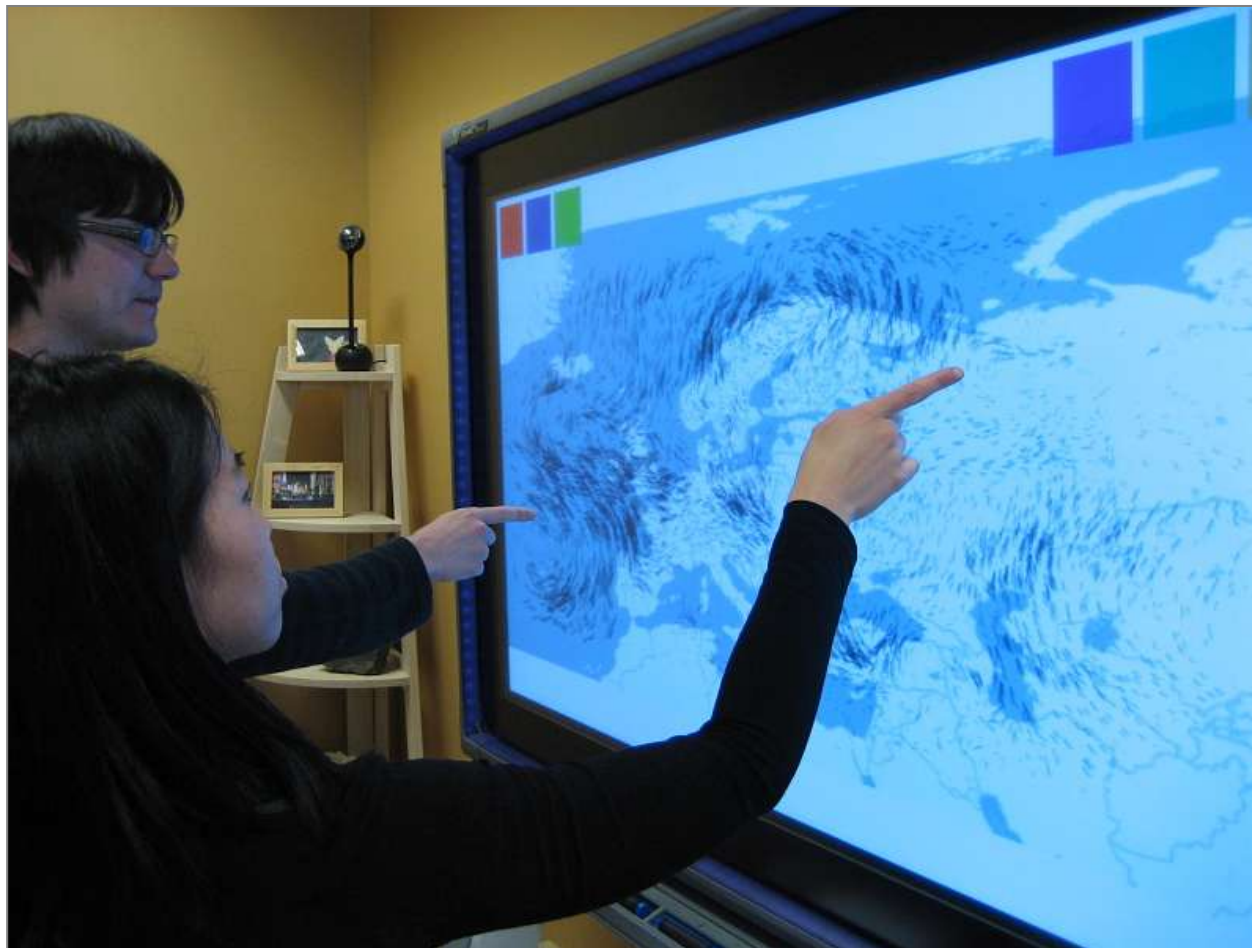


with L. Yu, P. Svetachov, P. Isenberg, & M.H. Everts

An Example: Weather Data



Interactive Visualization: Touch Displays



with M.H. Everts, J. Grubert, & S. Carpendale

Many Different Touch Sensing Techniques

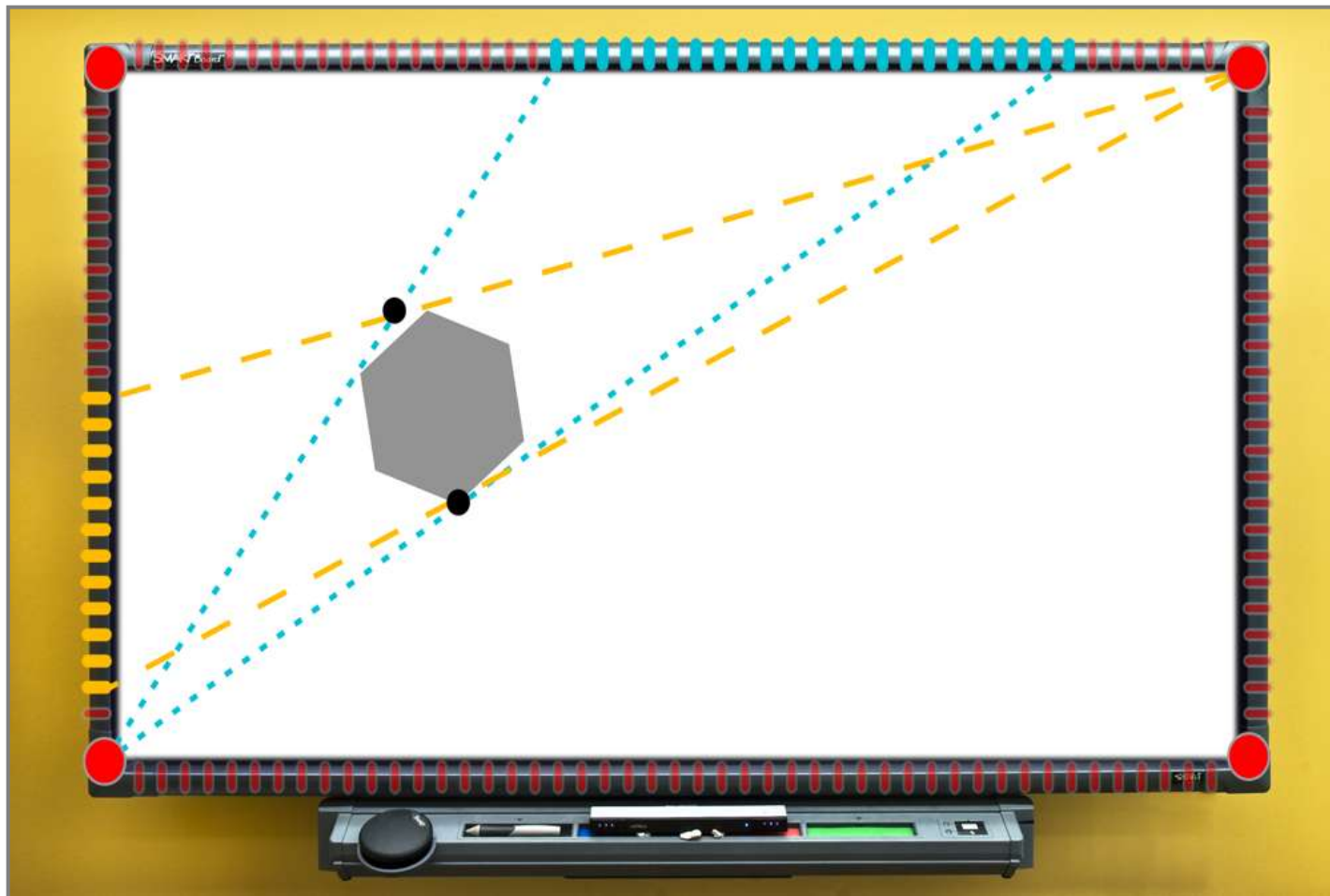


PQ Labs

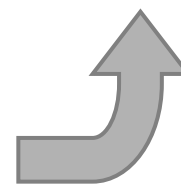
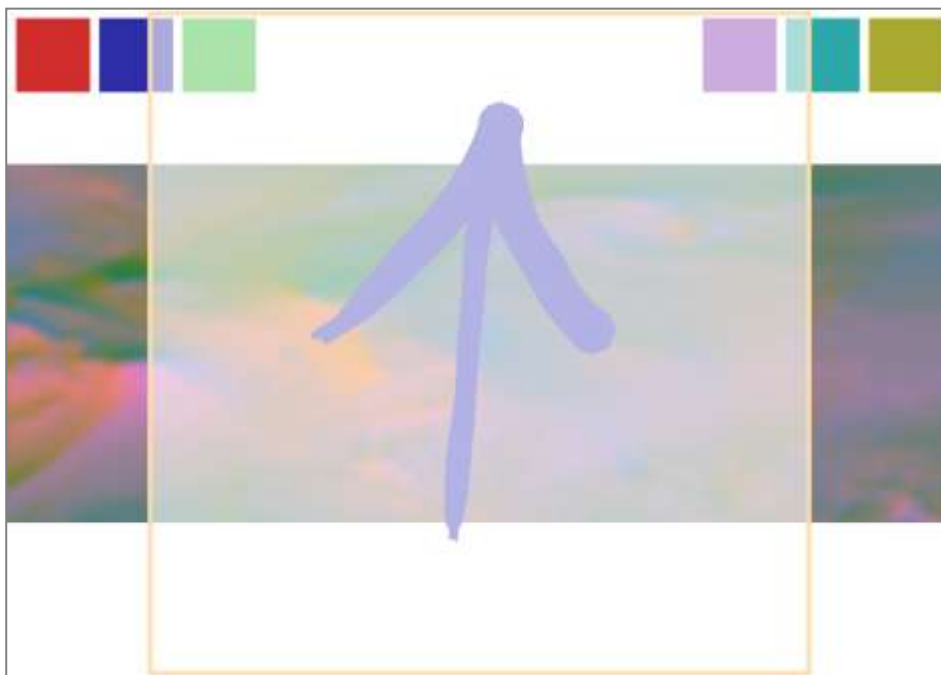
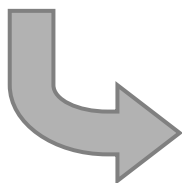


Perceptive Pixel

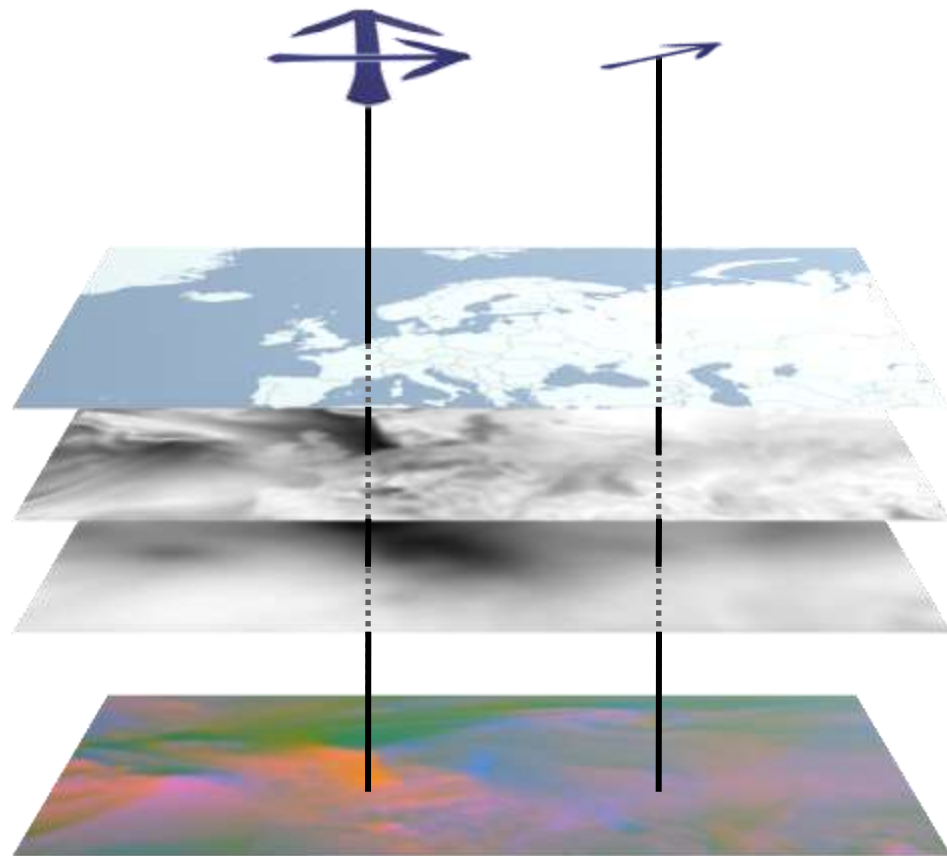
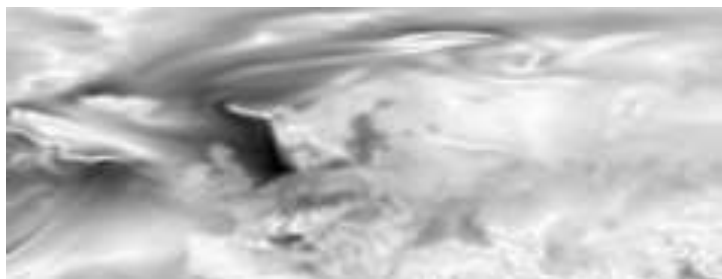
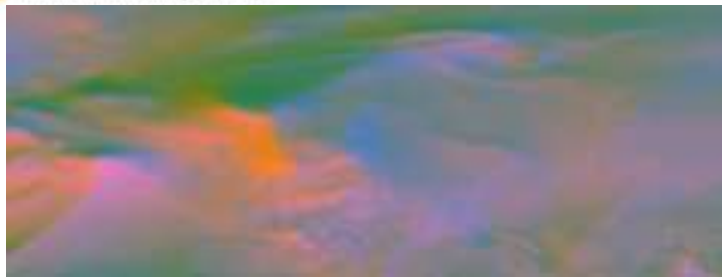
Many Different Touch Sensing Techniques

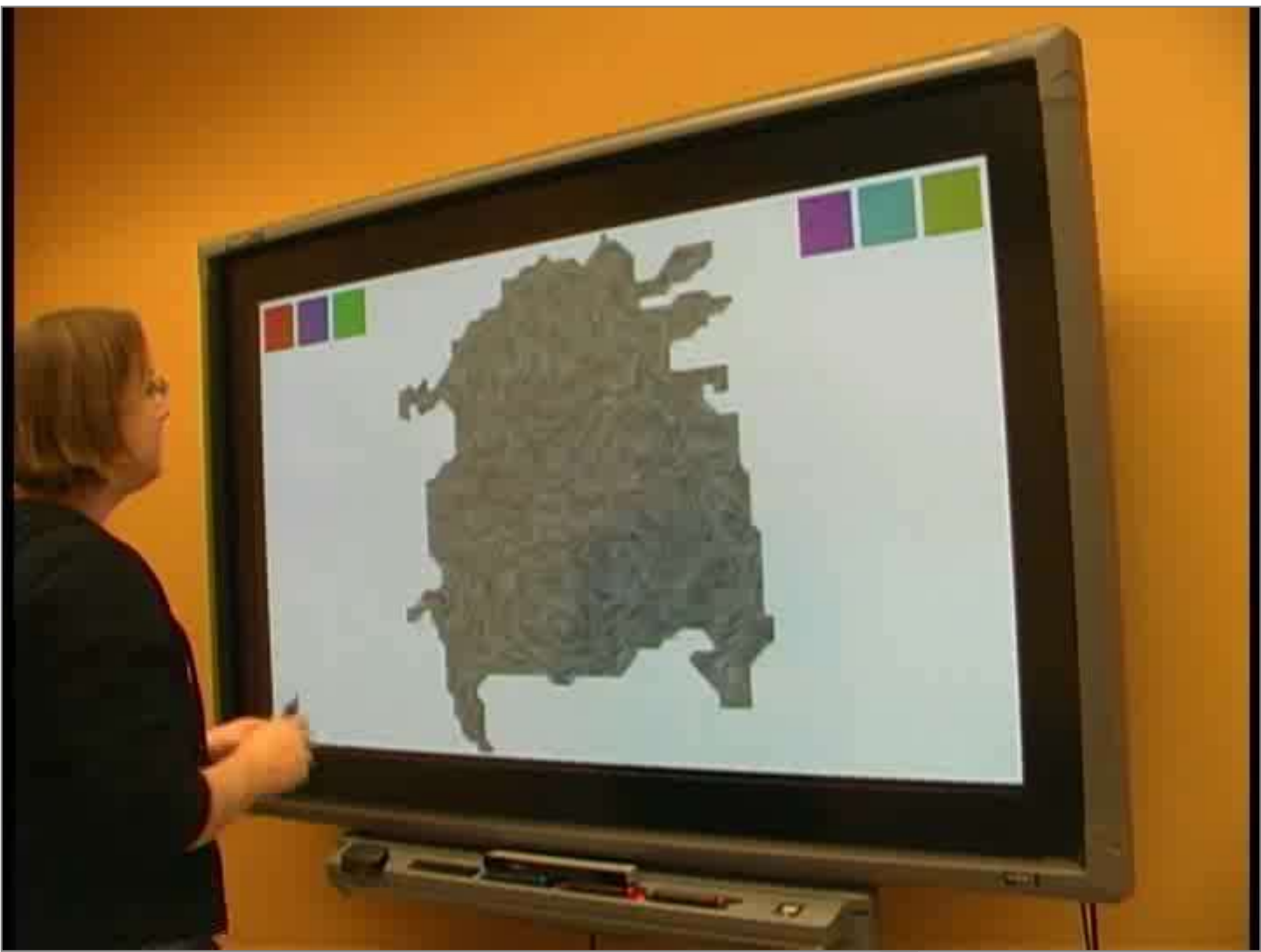


Data Exploration by Means of Glyphs



with M.H. Everts, J. Grubert,
& S. Carpendale





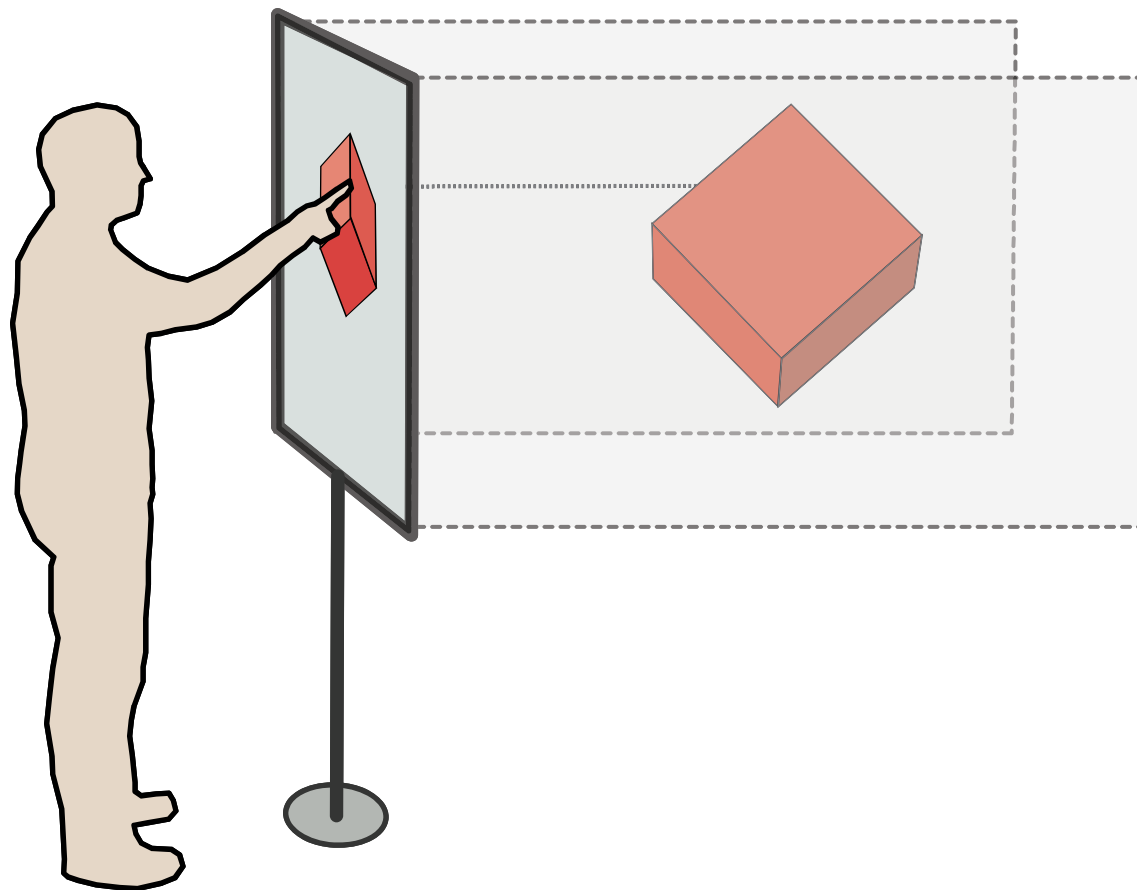
with M.H. Everts, J. Grubert, & S. Carpendale

Collaborative Exploration



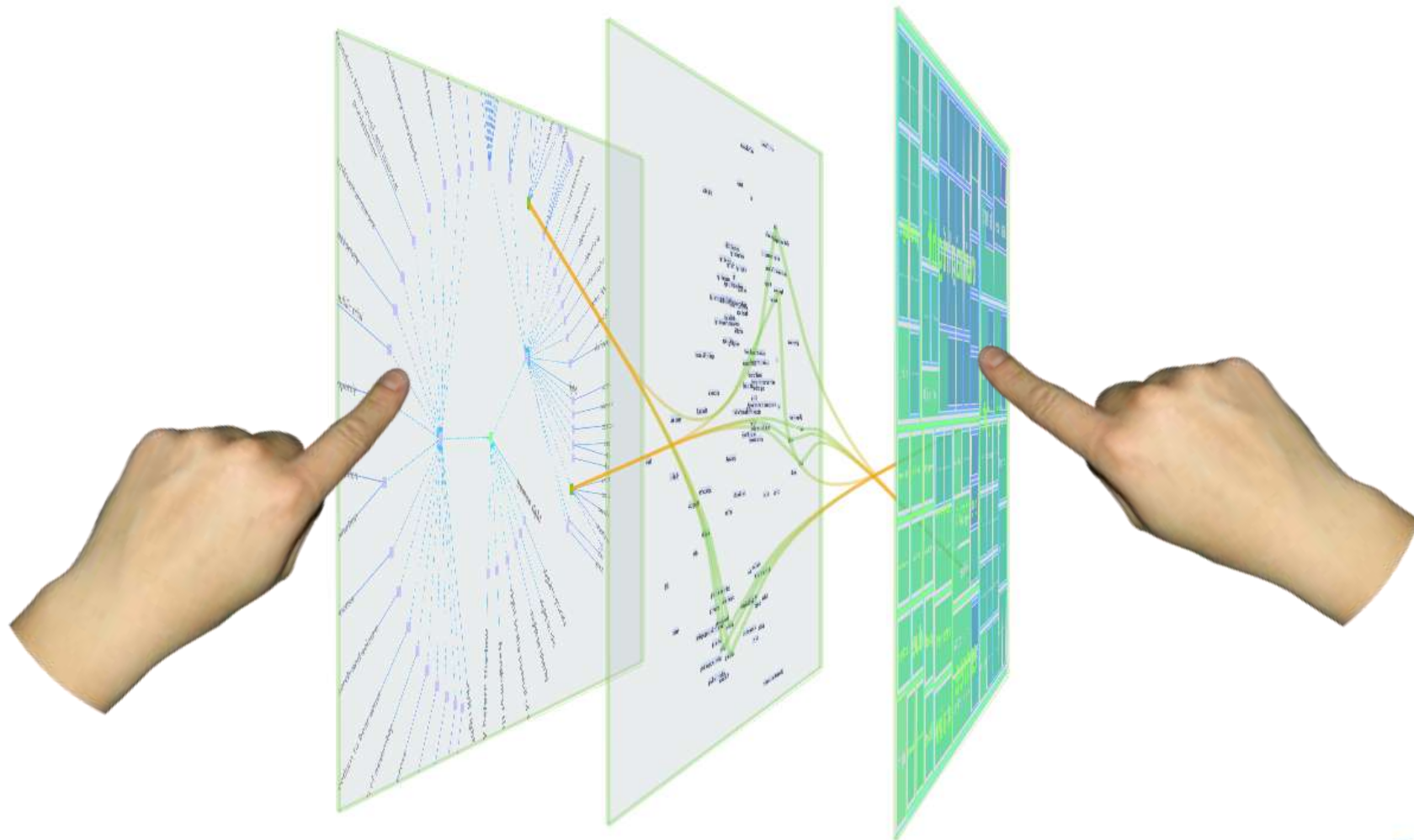
with U. Hinrichs & S. Carpendale

"Touching" Three-Dimensional Data

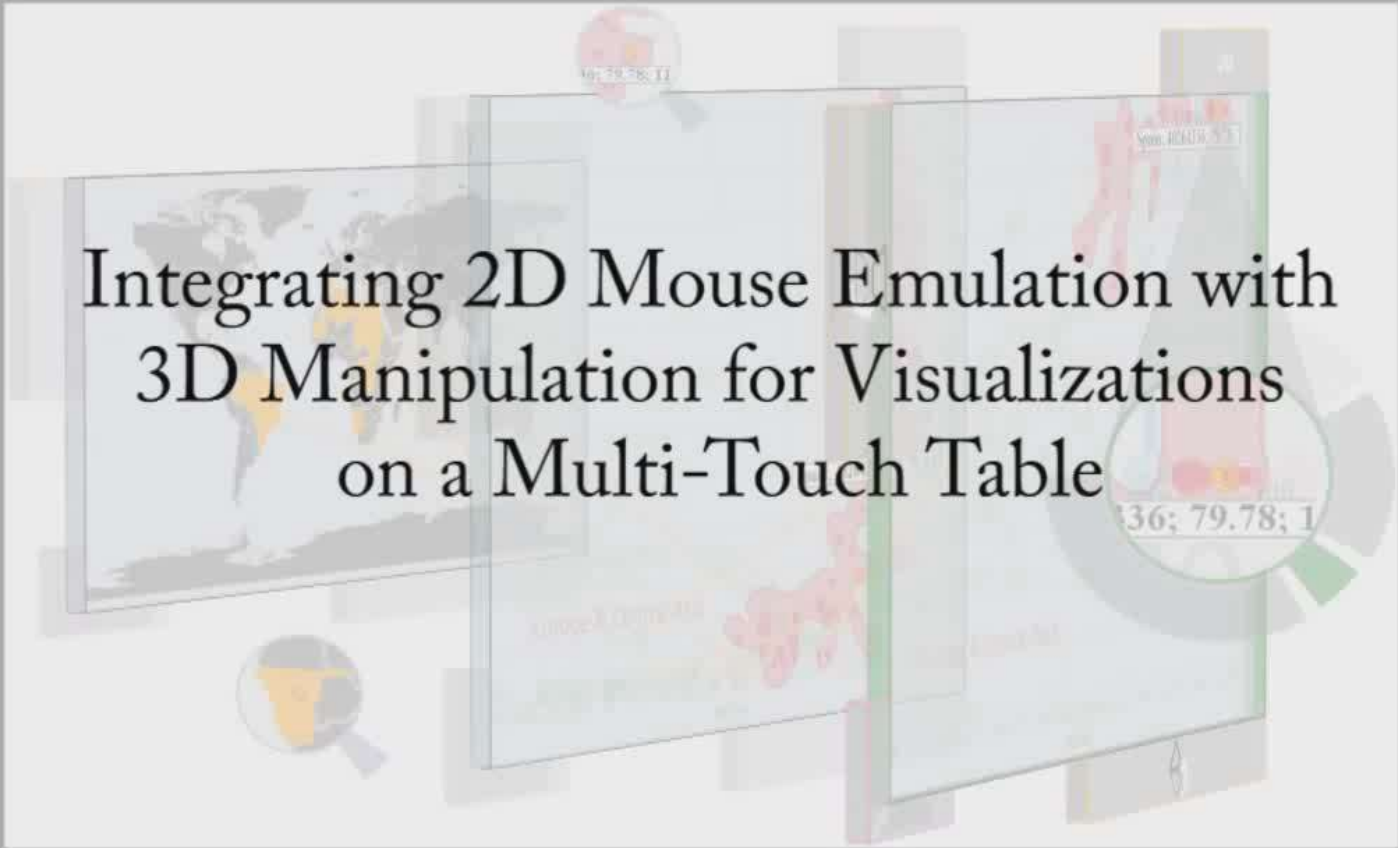


Supporting Sandtray Therapy on an Interactive Tabletop

with M. Hancock, T ten Cate, & S. Carpendale



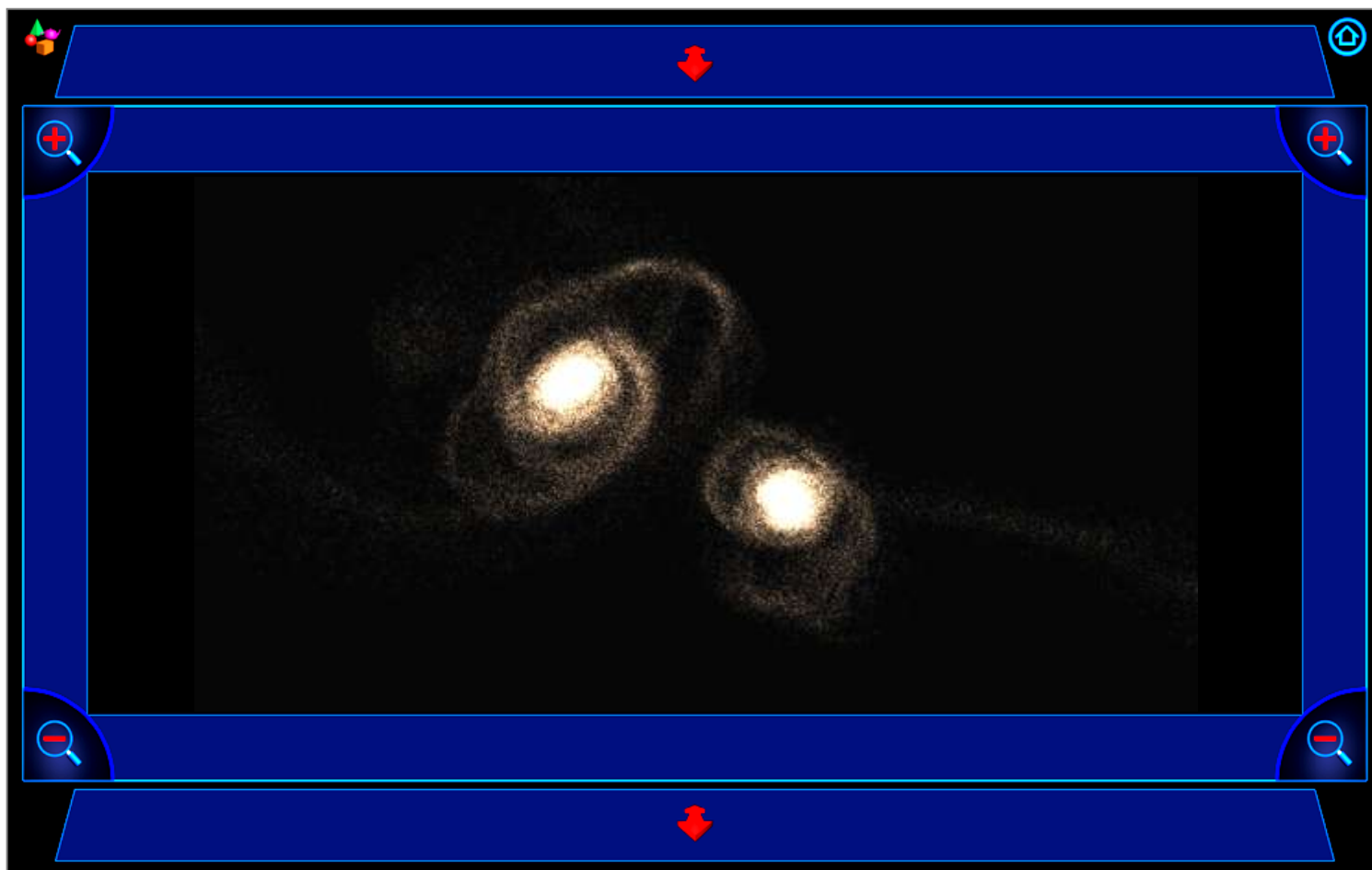
[Collins et al., 2007]



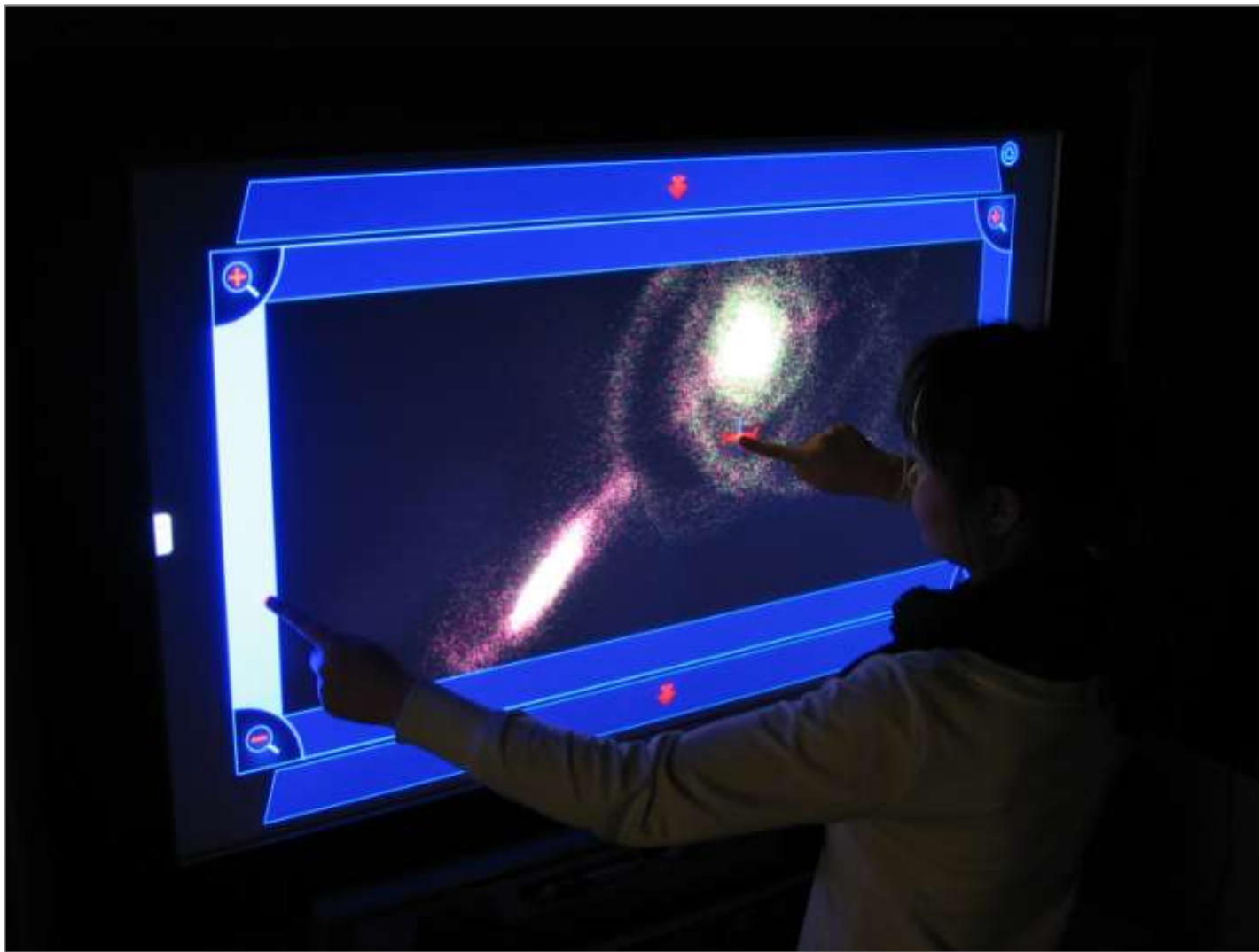
Integrating 2D Mouse Emulation with 3D Manipulation for Visualizations on a Multi-Touch Table

with L. Vlaming, C. Collins, M. Hancock, M. Nacenta, & S. Carpendale

New Idea: Use Interface Border/Frame



with L. Yu, P. Svetachov, P. Isenberg & M. H. Everts



with L. Yu, P. Svetachov, P. Isenberg & M. H. Everts



with L. Yu, P. Svetachov, P. Isenberg & M. H. Everts

Interaction & Visualization on Large Displays

Tobias Isenberg

