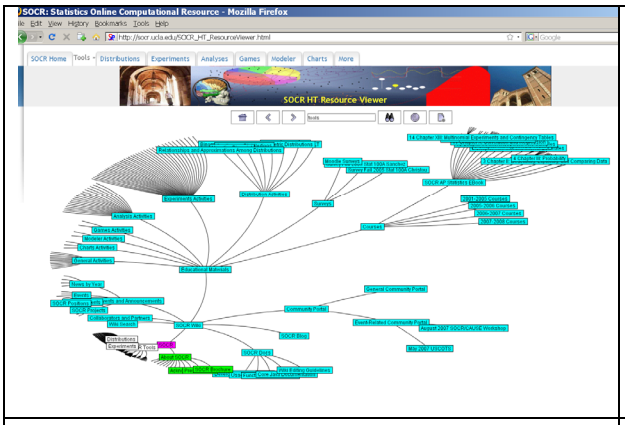
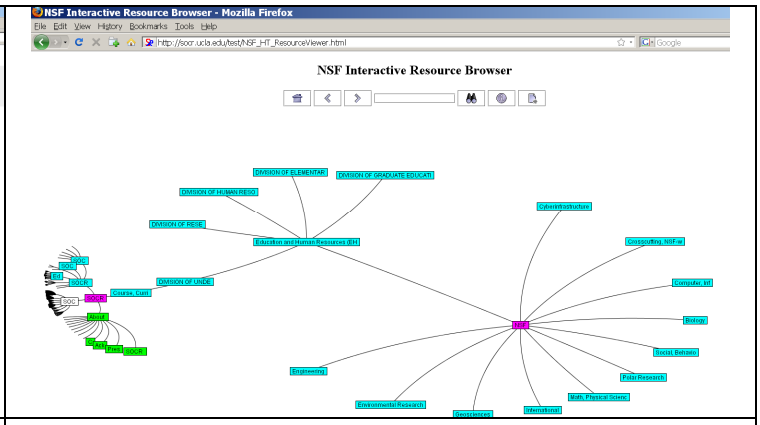
Advanced Mathematics used to Explore Hierarchical Educational Materials

The Statistics Online Computational Resource (SOCR) for Education has employed a high-power mathematical technique, based on *hyperbolic geometry*, to design a new graphical viewer, SOCR HT Viewer. This Java-based and platform-independent viewer enables instructors and learners to traverse, explore, find and utilize data, resources and services using an interactive graphical user interface accessible via a web-browser. The **Figure** shows two separate Internet-based hierarchical educational resources graphically displayed for interactive exploration, the SOCR resources, left, and the NSF resources, right. In addition, SOCR has provided such HT maps for a number of other projects, e.g., *Neuroscience Informatics Framework*, *LearnStor*, *Math-Genealogy*, *Guide to Available Mathematical Software (GAMS)*, etc.



SOCR HT Viewer providing interactive access to all *SOCR Resources*: http://socr.ucla.edu/SOCR_HT_ResourceViewer.html



SOCR HT Viewer providing interactive access to all *NSF Resources*: http://socr.ucla.edu/test/NSF_HT_ResourceViewer.html