

## High Impact Data and Products using Community Standards and Tools – The Chandra Experience

With 20 years of operations, the Chandra X-ray Observatory has secured a significant scientific legacy including 2 decades of processed and calibrated data, a source catalog, and other more minor holdings, totaling ~36 TB. One of the data system challenges is to disseminate these data to a wide audience in order to encourage and facilitate broad scientific discovery.

More recently, we have found that IVOA standards and community tools have enabled us to provide a number of additional high impact products to the community. Three examples include: 1) use of WWT where we have added a customized layer to provide an interactive graphical interface to the Chandra Source Catalog, 2) HiPS products developed from our archive data that provide interactive visualization of the Chandra X-ray sky, and 3) Object Visibility implementations that enables discovery of metadata and visibility time intervals for user-specified object coordinates observable by Chandra.

These projects employ very modern technologies that fit seamlessly into the goals of disseminating the Chandra data holdings and facilitating metadata transfer between the Chandra X-ray Center and other mission facilities. Each project has required a reasonable amount of effort where 20 years ago they would have been challenging or impossible altogether. Given infrastructure developed using community standards, these capabilities are maintainable using nominal resources going forward.

We will describe these projects, the time and effort that went into them, their impact, and our plans going forward.