

# **Database-Centric Scientific Computing**

**(in memoriam Jim Gray)**

*Alexander S. Szalay*

*Department of Physics and Astronomy,  
Department of Computer Science  
The Johns Hopkins University, Baltimore, MD 21210, USA*

*Email: [szalay@jhu.edu](mailto:szalay@jhu.edu)*

ORCID: 0000-0002-4108-3282

**Abstract.** Working with Jim Gray, we set out more than 20 years ago to design and build the archive for the Sloan Digital Sky Survey (SDSS), the SkyServer. The SDSS project collected a huge data set over a large fraction of the Northern Sky and turned it into an open resource for the world's astronomy community. Over the years the project has changed astronomy. Now the project is faced with the problem of how to ensure that the data will be preserved and kept alive for active use for another 15 to 20 years. At the time there were very few examples to learn from and we had to invent much of the system ourselves. The paper discusses the lessons learned, future directions and recalls some memorable moments of our collaboration.