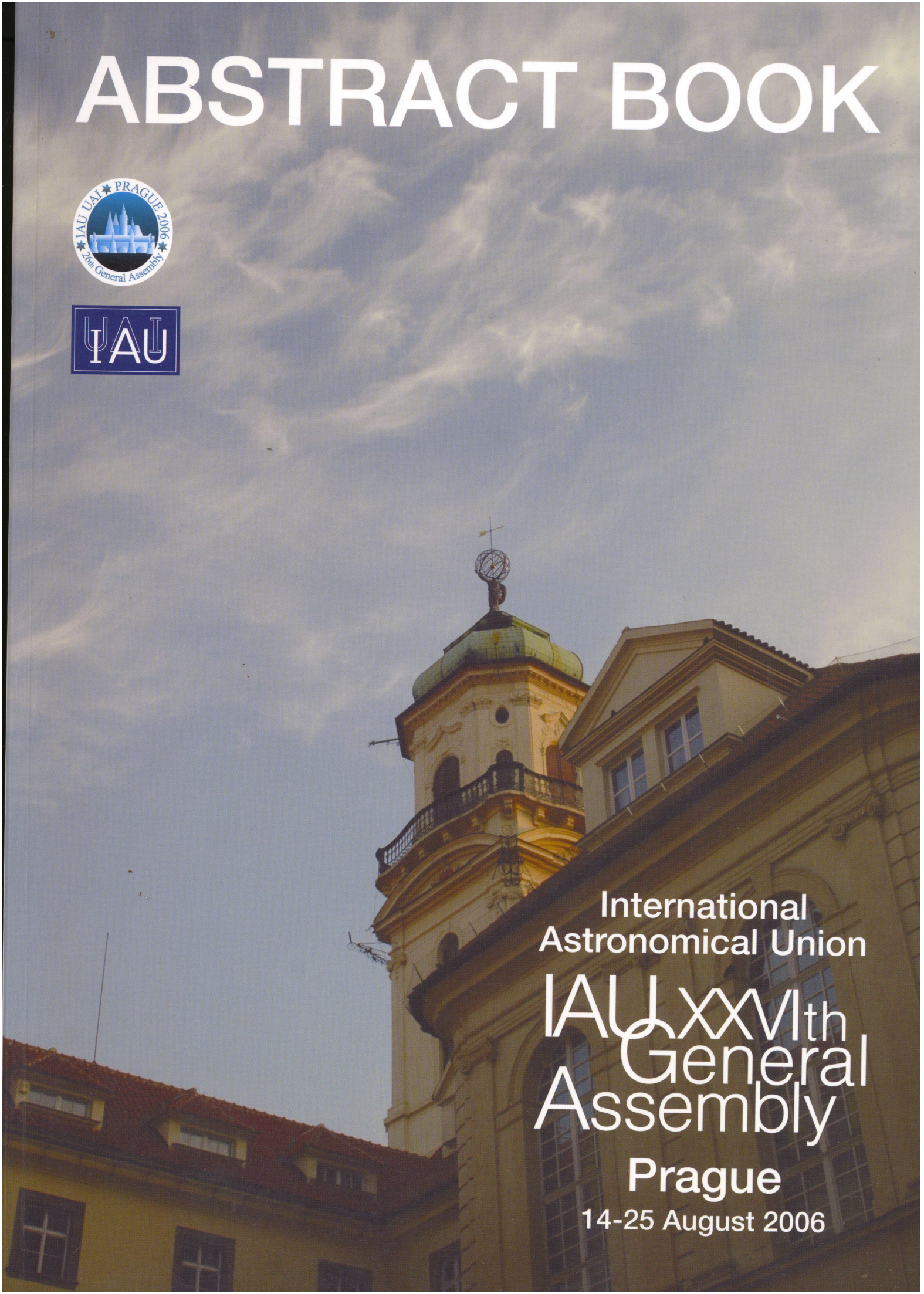
ABSTRACT BOOK



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application server with set of web-services and a pool of JDBC connections to database server, and the frontend for interaction with users. Clients could be web browsers or any programs communicating with SAI CAS via HTTP and SOAP protocols and retrieving the data in different formats (VOTable, CSV etc.). The spatial queries and cross-matches in the database are operated using the developed by us Q3C sky indexing scheme and corresponding package for PostgreSQL v.8.1+ which is also freely available. It provides the very fast access to the data with spherical attributes and combines advantages of well-known HTM and HEALPIX indexing schemes. Currently we provide the ConeSearch service (registered in VO registry) for USNO-A2/B1, 2MASS, UCAC-2, NOMAD, DENIS, Tycho-2. Other catalogues will be loaded once we obtain them. We also have developed the services for easy uploading catalogs to the SAI CAS. The main idea of SAI CAS is to provide the good basis and the good API for building the VO services. SAI CAS already has all the infrastructure to store the catalogues and their metadata and to query them, but several additional interfaces (like Skynode and crossmatching interface) will be implemented soon.

SPS3-20 Oral presentation

Development Of The Database Of The Nikolaev Astronomical Observatory As A Unit Of An International Virtual Observatory

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Last years results of creation of the digital database of Nikolaev Astronomical Observatory (NAO) are presented. At present, three telescopes are connected to the local area network of NAO. All obtained data and results of data processing are added to the common database of NAO. The daily average volume of the new astronomical information obtained from the CCD instruments makes from 300MB up to 2GB, depending on the purposes and conditions of observations. Total amount on middle of 2006 is near 140GB. The overwhelming majority of the observations data are stored in the FITS format. Digitizing of old photographic observations and scientific publications was started. Development and further refinement of storage standards, procedures of data processing are carried on. Adaptation of own observational CCD data and catalogues to VizieR and Aladin systems (http://www.euro-vo.org) was started. Creation of astronomical web site with possibility of interactive access to databases now and telescopes in near future are continued. There are some database presents on NAO web site (http://www.mao.nikolaev.ua) with prototypes of search engines using PHP and MySQL. Three new databases are in a stage of creation and testing and will be presented on our web site at the end of 2006.

We hope, that in the 2007 our database will be included as a part of International Virtual Observatory.

SPS3-21 Oral presentation

An Archive of Chandra Observations of Regions of Star Formation (ANCHORS)

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ANCHORS is a web based archive of all the point sources observed during Chandra observations of regions of star formation. It is designed to aid both the X-ray astronomer with a desire to compare X-ray datasets and the star formation astronomer wishing to compare stars across the spectrum. For some 50 Chandra fields, yielding 10,000+ sources, the database contains X-ray source properties including position, net count rates, flux, hardness ratios, lightcurve statistics and plots. Spectra are fit using several models, with final parameters and plots recorded in the archive. Multi-wavelength images and data are cross-linked to other archives such as 2MASS and SIMBAD. The pipeline processing ensures consistent analysis techniques for direct comparisons among clusters. Results are presented on-line with sorting, searching, and download functions HTML/XML interface. We are hoping to add linkage to the VO. We will solicit users' feedback.

SPS3-22 Oral presentation

"Retooling" Data Centre Infrastructure To Sup Observatory

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The Canadian Astronomy Data Centre manages collection of data from the following ground and space CFHT, JCMT, Gemini, DRAO, HST, FUSE, and MOST models implemented for these data collections are ten date two important developments; the Virtual Ob systematic generation and management of data pro ago, we began the process of supporting access products through IVOA protocols such as SIA by build archive data models. Today, we now realise that this a VO models on archive models is not sufficient and that be re-tooled to properly support the VO – from the sto to the query, processing and access models. The CA ambitious software development effort to implement a to serve both telescope archive and Virtual Observator will describe the lessons learned and will present a hi of the new infrastructure.

SPS3-23 Oral presentation

Prototype Development for a Hubble Legacy Archiv

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The Space Telescope Science Institute (STScI), in co European Coordinating Facility (ECF) and the Canadia

Data Centre (CADC), is studying the development of a

archive for the Hubble Space Telescope (HS enhancements would be: 1) making HST data improving the science products for the legacy instrume CR-rejected multidrizzled images for the WFPC2), time" access to the data (i.e., having the data online) extensive "composite images" (e.g., stacked images improving absolute astrometry (i.e., from 1 – 2" to ~ footprint service to make it easier to browse and do adding a cutout service for super-fast access, 8) catalogs for many datasets. A general outline of provided and the status of the various prototypes will b

SPS3-24 Oral presentation

Galaxy Formation And Evolution Using Multi-W Resolution Imaging Data In The Virtual Observatory

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Observational astronomy is entering an exciting n surveys delivering deep multi-wavelength data over a electromagnetic spectrum. However, large surveys p sets that have now reached terabytes (e.g. for the survey - http://www.sdss.org) in size and petabytes ove (e.g. LSST - http://www.lsst.org). The Virtual Observato a means to deal with this issue and users are now al data sets in a quicker more useful form. We describe a Spectral Energy Distribution (SED) matchin characterises objects at high redshift (z > 1) detected infrared passbands. The observational SEDs are ther SEDs that yield physical parameters of each object su rates, star formation histories, ages, stellar masses technique uses model spectral synthesis codes that Bruzual and Charlot (Galaxev), PEGASE and Starbu the technique, and how this is being developed as an a through standard Virtual Observatory interfaces, spe Common Execution Architecture (CEA) (http://www.ast