

The Wide-Field Plate Data Base and its New Applications

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Abstract

The development for last 15 years of the Wide-Field Plate Database (WFPDB, <http://www.skyarchive.org>) as an initiative of the IAU Working Group on Sky Surveys, hosted by Commission 9, is discussed. This database contains descriptive information for more than 2200000 total numbers of observations from the archives of 125 professional observatories operated in the period 1872-2005 all over the world. De facto the database is an instrument for searching the long term brightness variations of existing (registered) sky objects mainly to the 14(B) magnitude. The WFPDB base has a mirror in the AIP, Potsdam (<http://vodata.aip.de/WFPDBsearch/>) and its first version works under VizieR. <http://webviz.u-strasbg.fr/viz-bin/VizieR?-source=VI/90>. Currently the WFPDB provides access to the information for more than 30% of the estimated archives total number. Following the requirements of the Centre de Données Astronomiques de Strasbourg (CDS) and International Virtual Observatory Alliance (IVOA) the WFPDB contains the digitized plate preview images, as well as digitized plate row data using the new generation of the flatbed scanners. The WFPDB team continues to enlarge the database with submitted or retrieved information from the photographic plates which enable the astronomical community to complement their investigations going more than 100 years back in time. The newly created Bulgarian Virtual Observatory (BGVO, <http://www.bgvo.org/>) is closely related with the WFPDB development and its participation in the EC initiatives in the frame of the EURO VO Data Center Alliance.

Wide-Field Plate Archives in Rozhen and Belgrade Observatories

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Abstract

The wide-field plate archives at disposal in Rozhen Observatory (more than 9500 plates obtained in the period 1979 – 1995) and Belgrade Observatory (more than 14500 plates obtained in the period 1936 - 1996) are present. The plate archives, made in the frames of different observing programmes, reflect the tendencies in the development of astronomy in these countries. The results from the joint collaboration concerning the plate cataloging and digitization with EPSON flatbed scanners providing good speed of scanning and good astrometric and photometric accuracy while generating digital data, as well as the inclusion of the images of the scanned plates in WFPDB and BELDATA and their online access in the frames of the Virtual Observatory, are present too.