Highlights of Astronomy, Volume 15
XXVIIth IAU General Assembly, August 2009
Ian F. Corbett, ed.

doi:10.1017/S1743921310011816

Virtual Observatory Access to the The IPHAS Data Releases

N. A. Walton[1], J. Drew[2], E. Gonzalez-Solares[1] and M. J. Irwin[1]

[1]Institute of Astronomy, University of Cambridge, Madingley Road, Cambridge, CB3 0HA, UK

[2]Centre for Astrophysics Research, Science and Technology Research Institute, University of Hertfordshire, College Lane, Hatfield, Hertfordshire, AL10 9AB, UK

Abstract. We highlight the IPHAS Data Releases and how access to the primary data products has been implemented through use of standard virtual observatory (VO) publishing interfaces as provided by the Astro- Grid system. The IPHAS Early Data release (EDR), is a photometric catalogue of more than 200 million unique objects, coupled with associated image data covering more than 1000 square degrees in three colours. These data represent the largest data sets to date published solely through Virtual Observatory interfaces.

The IPHAS project (www.iphas.org) is a large systematic optical/Hα survey being carried out with the 2.5-m Isaac Newton Telescope's Wide Field Imaging Camera of the entire northern galactic plane ($|b| < 5°$). The IPHAS Data Release (EDR) (Gonzalez-Solares *et al.* (2008)) (http://idr.iphas.org) is a photometric catalogue of more than 200 million unique objects, coupled with associated image data covering more than 1800 square degrees in three colours. Access to the primary data products has been implemented through use of standard virtual observatory (VO) publishing interfaces as provided by the AstroGrid system (www.astrogrid.org). The upcoming data releases, in particular the full 1st Data Release in Jan 2010, along with the data from VPHAS extension to the southern galactic plane will be published utilising the same interfaces.

Access, through the VO, is provided to the main IPHAS photometric catalogue, in addition to a number of common catalogues (such as 2MASS) which are of immediate relevance. The VO access allows for the user to simply perform a range of common science processes, for instance allowing improved combination of IPHAS and supplementary multi-wavelength data. For instance, cross-matching with 2MASS data in providing optical-IR colours of objects for extinction distance mapping, and cross matching with X-ray data leading to improved selections of CV samples and so forth. The publication of the IPHAS catalogues and image data represents the largest data sets to date published solely through Virtual Observatory interfaces.

Acknowledgements

This research has made use of data obtained using, or software provided by, the UK's AstroGrid Virtual Observatory Project, which was funded by the Science & Technology Facilities Council and through the EU's Framework 6 programme. The Isaac Newton Telescope, operated on the island of La Palma by the ING in the Spanish Observatorio del Roque de los Muchachos of the Instituto de Astrofisica de Canarias.

References

Gonalez-Solares, E. A., Walton, N. A., Greimel, R., *et al.* 2008, *MNRAS* 388, 89