

CMSUC/The Institute of Astronomy, University of Cambridge



<http://www.ast.cam.ac.uk>

Contact person : [N. Walton](#)

Profile: The Institute of Astronomy, University of Cambridge enters the project on behalf of the AstroGrid Project, a consortium of seven UK Universities and Public Laboratories Virtual (Universities of Edinburgh, Leicester, Manchester, University College London, Bristol and the STFC's Rutherford Appleton Laboratory). AstroGrid developed the technical infrastructure necessary for the VO, (e.g. Virtual Storage, Authentication, APIs, Workflow systems, and grid and web service interfaces) as well as development of the related standards. AstroGrid is the technology lead partner within the European VO, leads the Euro-VO Technology Centre, and is the coordinating partner for the EC FP6 VOTECH project. AstroGrid, along with CDS, ESO, and the US-NVO, was a founding member of the International Virtual Observatory Alliance (IVOA) and is a member of the EC FP6 Euro-VO Data Centre Alliance and the EC FP7 Euro-VO AIDA projects. From 2009 AstroGrid will be superseded by the VOTC:UK initiative charged with ensuring the continued maintenance and development of its VO infrastructure supporting the community of users, missions and facilities using this software.

The University of Cambridge includes a world class Astronomy research cluster including the Institute of Astronomy (IoA). The IoA conducts front rank research in cosmology, active galaxies, Galactic Structure, and star and planet formation, and is a major user of A+M data. It operates the Cambridge Astronomy Survey Unit (CASU) which develops major science pipelines which are used to generate the science data products for major missions such as the European Southern Observatory's VISTA infrared survey telescope (data rates of >100TB/year). The IoA leads the Photometric processing in the Gaia Data Processing Consortium, and is responsible for one of the main Data Processing Centres for Gaia, ESA's cornerstone astronomy mission (launch 2011). It is a member of the Planck Data Processing Consortium. Cambridge is world renowned for both theoretical and applied computer science, the Computer Lab and the Cambridge eScience Centre being two centres of activity. It hosts the High Performance Compute Facility – the current Darwin machine being the most powerful civilian supercomputer in the UK. AstroGrid and CASU both collaborate actively with this local pool of expertise in Grid and e-Science activities. The IoA has relevant collaborative research

links with a number of industrial partners including Oracle.

Role in the project: the loA, Cambridge will lead SA1, where its technical experience in developing the technical grid and VO infrastructures will be vital in deploying new A+M resources into this infrastructure for the benefit of the A+M communities. In SA1 the loA will have a key role in defining the standard access systems, resource registration and infrastructure extension. The loA will also participate in SA2 supporting the continuing service availability, with a key role in quality assurance of the software and services. Its participation in NA1: Strategy and NA2: Training will focus on providing expertise in technical leadership of VAMDC and leadership in providing technical training to the community in the use of the new research infrastructure.

The loA group includes a number of scientists and developers who will contribute to VAMDC with relevant experience in Virtual Observatory and Grid infrastructure. For instance the loA hosts the Euro-VO Technology Centre Project Scientist and secretary of the IVOA and co-Chair of the Open Grid Forum's astronomical applications Research Group.

Key persons :

N. Walton Astronomer

Expertise : IVOA standards and astrophysics applications.

Role in VAMDC project : WP2 coordinator (NA1) (with CNRS), technical deputy coordinator.

G. Rixon Senior Engineer

Expertise : system architect of AstroGrid, development of VO systems in interfacing to the Grid and Web services realm, development of the authentication and authorisation framework for the VO, and the VOSpace storage system, acknowledged leader in grid and web service technologies.

Role in VAMDC project : WP4 coordinator (SA1)

[Back to CMSUC](#)