

CMSUC/The Institute of Astronomy, University of Cambridge



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

Contact person: [N. Walton](#) & [G. Rixon](#)

Profile: The University of Cambridge includes a world class Astronomy research cluster including the Institute of Astronomy (IoA). The IoA conducts high impact 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 priority missions such as ESO's VISTA infrared survey telescope (data rates of >100TB/year). The IoA leads the Photometric processing in the Gaia Data Processing Consortium (DPAC), and is responsible for the Gaia Photometric Processing Centre and will lead the Exoplanet processing for the proposed ESA M3 PLATO planet finding mission. 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 – amongst the most powerful civilian supercomputers in the UK.

The IoA collaborate actively with this local pool of expertise in Grid and e-Science activities and have collaborative research links with industrial partners, e.g. Microsoft Research. The IoA has a lead role in the development of the VAMDC infrastructure, successfully leveraging its expertise in the development and specification of astronomical computational and Virtual Observatory infrastructure.

Role of CMSUC in the project: the IoA, Cambridge (UCAM) will lead WP5 (Operational Support) where it will focus on providing expertise based on its technical management of VAMDC and leadership in providing technical training to the community in the use of the new research infrastructure. In WP5 it will coordinate SUP@VAMDC support for the dissemination of VAMDC data and knowledge. CMSUC will host the first Annual Meeting with all the satellites meetings indicated on the GANTT charts (or pert diagrams).

Key persons:

N. Walton, Astronomer

Expertise : Technical coordinator of the VAMDC project. He has been actively involved in the development of the Virtual Observatory both as Euro-VO Technology Centre Project Scientist and secretary of the IVOA. He was co-Chair of the Open Grid Forum's astronomical applications Research Group (2004-2009). He now leads the Gaia GREAT (Gaia Research for European Astronomy Training) research network <http://www.ast.cam.ac.uk/GREAT> – being Chair of the ESF supported GREAT Research Network Programme (<http://www.esf.org/great>) and Coordinator of the recently approved EC FP7 Initial Training Network (GREAT-ITN). He is a member of the ESA Gaia Science Team.

Role in project : He will have a key role in the liaison between the Space Science and VAMDC communities, where the Gaia spectroscopy access to A+M data through SUP@VAMDC will be a significant science driver and user community.

G. Rixon, Senior Engineer

Expertise: Lead of the Service Deployment activities within VAMDC. He was until recently (May 2008) Chair of the International Virtual Observatory Alliance working group on Grid and Web Services. In this role he had led and developed the VO systems in interfacing to the Grid and Web services realm. He has played a major role in the development of the authentication and authorisation framework for the VO, and the VOSpace storage system. Within the Gaia DPAC he is responsible for the quality assurance engineering of the photometric processing system. Rixon is an acknowledged leader in grid and web service technologies.

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