The Newsletter - Volume 11, Issue 2
18 June 2014

Covers events between 1 October 2013 and 30 April 2014

Contents
General .................................................................................................................................1
Visitors .............................................................................................................................1
New Staff Members ........................................................................................................2
Prizes and Awards ...........................................................................................................2
Appointments (eg Editorial Boards or Committees) .....................................................2
Grants and Contracts ....................................................................................................2
Telescope/Satellite Time Awards ..................................................................................2
Proposals/White papers ...............................................................................................2
Mission Status and Developments ................................................................................3
Publications – Refereed .................................................................................................4
Publications – Non-Refereed ........................................................................................6
PhDs/MPhils Awarded ....................................................................................................6
Invited Talks and Conferences ....................................................................................6
Outreach ..........................................................................................................................9
Media Broadcasts and Features ....................................................................................10
Other News Items/Activities ........................................................................................11
Next Issue ......................................................................................................................11

General
Gaia was launched just after 09.00 GMT on 19 December.

We congratulate Natasha Doss (Cluster PEACE Operations Team) on the birth of her baby.

Visitors
Our cohort of 17 MSc Space Science and Engineering students, joined by our new PhD students, visited MSSL on 16 October, and were introduced to the breadth of our research activities, to UCL/MSSL space missions’ heritage, current and future projects, in the many disciplines that we pursue. The students were very impressed by finding out how much is going on at the Lab. and a few managed to meet potential project supervisors as well. Thanks to all involved who helped make the day a success.

We were also pleased to welcome:
• Spiro Antiochos - NASA/GSFC.
• David Berghmans - Royal Observatory of Belgium.
• Clive Dyer.
• Rachel Howe.
• Graham Kerr and Hugh Hudson - University of Glasgow.
• Miho Janvier - University of Dundee.
• Huw Morgan - University of Aberystwyth, collaborative visit to Lidia van Driel Gesztelyi,
who also gave an excellent seminar on the vast extent of active region loops on the Sun.

- Antonia Savcheva - SAO/CfA
- Simon Thomas - University of Reading
- Anthony Yeates - Durham University
- Matsui Yuki visited - University of Tokyo

New Staff Members

The Space Plasma group welcomes a new member, Zhonghau Yao and returning PEACE ops member Chandrasekhar Reddy Anekallu.

Prizes and Awards

Kim Birkett (Planetary Science) won an Outstanding Student Paper Award (OSPA) for her presentation at AGU, San Francisco (Dec. 2013) on cometary sodium tails. Kim was also runner up in the UCL Graduate School Research Images as Art competition.

Jason Hunt, one of our 3rd year astrophysics PhD students, won 1st prize in the Built Environment, Engineering Sciences and Mathematical & Physical Sciences category in the UCL Graduate School Research Poster Competition 2013/14 for his poster entitled PRIMAL: Mapping the Milky Way from Gaia data.

David Long received the Robert Boyd award for outstanding scientific achievement.

Louise Harra was awarded the RAS Chapman medal for investigations of outstanding merit in solar-terrestrial physics.

Appointments (eg Editorial Boards or Committees)

- Andrew Coates - continues on STFC’s AGP as Planetary Science chair for the 2014 round (final year).
- David Williams - elected deputy chair of UK Solar Physics council
- Jack Carlyle - elected student representative of UKSP council
- Louise Harra was appointed a reviewer for the Academy of Science in Finland
- Lidia van Driel-Gesztelyi:
  a) appointed to the ISSI Science Committee for three years.
  b) served as member of the AGU Space Weather Prize Committee.
  c) appointed a member of the ERC Consolidator Grants Panel PE9 - Universe Sciences for 2014.

Lucie Green:
- joined the NERC Peer Review College.

Grants and Contracts

- The space plasma group has received an award from STFC to cover the salary of a PDRA to undertake studies of the magnetotail with Cluster data. This is a belated award of a post that was proposed but not originally funded in the 2013-16 MSSL Consolidated Grant submission.
- The new post-launch support grant for Hinode-EIS started on 1 April for a period of 2 years.
- Tom Kitching was successful as PI of an STFC urgency proposal for pre-launch science support for Euclid. MSSL has been awarded one 2-year postdoc position to start in September. Other universities in the proposal were Portsmouth and Durham.
- A NERC 3-year grant was awarded in order to “Determine and understand substorm energy loss and partitioning”.
- Tom Kitching has been awarded a Royal Society International Scientific Seminar, which will be held in June at the Chicheley Hall residence. The interdisciplinary seminar will be on “Science on the Sphere”, focussing on how to achieve the best science using data on in spherical geometries. Twenty world-leading experts from cosmology, astrophysics, geophysics and computer graphics are invited.
- The proposal to renew the post-launch support for Hinode submitted to UKSA by Louise Harra/Khalid Al-Janabi/John Rainnie was successful. The new grant started on 1 April 2014 for 2 years.

Telescope/Satellite Time Awards

Deb Baker:
- Proba2/SWAP Guest Investigator at ROB 31 March-11 April.

Tom Kitching:
- Awarded VLT-VIMOS time for IFU observations of the core of galaxy cluster A3827, as Co-I of a team coordinated by Richard Massey (Durham).

Proposals/White papers

- David Long - Proposal to Leverhulme Trust: Predicting the momentum and magnetic field orientation of solar eruptions.
- Tom Kitching submitted an ERC starting grant proposal entitled “Gravitational Lensing in Exploration of Acceleration and Mass in the
universe (GLEAM)".

- Andrew Coates and Jonny Rae - Space Weather Space Radiation Expert Service Centre, submitted to ESA Space Situational Awareness programme in March.
- ESA announced at the end of Nov 2013 that the science theme “The hot and energetic Universe” was selected for L2 – the second Large-class mission in ESA’s Cosmic Vision science programme, with launch date foreseen in 2028 – and is expected to be pursued with an advanced X-ray observatory, Athena, in which MSSL has science and hardware involvement. A response to ESA’s call for mission proposals was submitted by the mid-April deadline by the Athena team. It appears that there is no other contender. The ESA SPC should make a formal decision on the proposal at their June meeting.

Mission Status and Developments

**Cassini** - In this period we were preparing for the CAPS-INMS team meeting that was held at MSSL in May; the event will be reported in the next issue. We are working on several scientific areas with student (4), postdoc (1) and staff (3) involvement (see lists of publications and presentations). Thanks go to the local organising committee for the CAPS-INMS team meeting: Annie Wellbrock, Suzanne Winter, Gethyn Lewis, Geraint Jones, Chris Arridge and Andrew Coates and to everyone else involved in making this meeting a success.

**Cluster** - Cluster operations continue to go to plan. Andrew Fazakerley and Gill Watson attended the 60th Cluster Science Operations Working Group at ESOC in March. A routine annual Progress Meeting at MSSL took place in February with the ESA CAA team, focussed on PEACE data in CAA. Andrew Fazakerley and Branislav Mihaljcic attended the 19th CAA Cross Calibration Meeting at ESRIN in April. Deliveries of CAA PEACE data for 2012 were completed.

**CREST-2** - The CREST-2 Advanced Hyperspectral Visible-Infra Red Camera project to extend the wavelength range of the ExoMars PanCam into the short wave IR (0.4-1.6 microns) and provide hyperspectral imaging capabilities started in October 2013. The AHVIRC team submitted the required 5-month interim report at the end of February and are now awaiting UKSA approval to begin the 19-month prototype assembly and test phase of the project.

**ExoMars** - Following an intense period of document preparation, the delta PDR meeting for PanCam was held on 12-14 March at MSSL. Several actions resulted which the team are dealing with. Andrew Coates (PI) represented PanCam at the ExoMars Science Working Team meeting in Moscow on 4-6 February and at the first landing site selection meeting at ESAC, Madrid on 26-28 March. A PanCam science team meeting was planned for 5 June at MSSL.

**Hinode** - In STFC’s programmatic review, Hinode was allocated a grading of g2, which means ‘a project with high potential for excellent science which should be considered via peer review’. Hinode-EIS continues to perform well.

**QB50 Precursor Mission** - A significant milestone on the EU FP7 QB50 project was reached in early 2014 with the delivery to the QB50 precursor mission of an Ion and Neutral Mass Spectrometer (INMS) from MSSL and a Flux (Phi) Probe Experiment (FIPEX) from TU Dresden. These instruments are designed to perform in-situ measurements of the ion and neutral particle population in the thermosphere. An EM of these instruments was delivered in January, with the FMs following in March. The precursor mission is a demonstration launch of two QB50 representative 2U CubeSats integrated by ISIS BV to test project specific technologies including the Science Units provided by MSSL, ADCS by University of Surrey and Quadpack deployment system by ISIS BV. The precursor mission from kick off to delivery was completed on an extremely rapid timeline with formal kick off in October 2013 and delivery of integrated CubeSats to launch site in May. The successful delivery and integration of the INMS and FIPEX payloads required a focussed, fast-track development of the highly miniaturised science payloads on an unprecedented timeline to meet the precursor schedule. The launch of the QB50 precursor satellites, currently scheduled for 19 June, will also be of the first satellites funded through the EU’s FP7 space technology programme. The full QB50 mission will consist of 50 CubeSats launched simultaneously carrying 40+ science units comprising either INMS, FIPEX or multi-Needle Langmuir Probe (m-NLP) supplied by University of Oslo. The full QB50 mission is planned for launch Q1 2016.
Rosetta - Andrew Coates (co-I) and Geraint Jones attended the Rosetta Plasma Consortium team meeting in Paris, 8-10 April.

Solar Orbiter - MSSL staff remain heavily engaged in the management and build of the Solar Orbiter SWA instrument, for which we are the PI-Institute leading an international consortium. During this period STM models have been delivered for both the HIS and PAS parts of the suite. MSSL staff attended a number of meetings, including the latest in the series of EMC Working Group meetings (Stevenage, 6-7 Feb), the full Team Meeting of the SWA consortium (Paris, 25-27 Feb), the Science Working Team (Washington DC, 12-14 March), a meeting of the UKSA Project Management Board to discuss progress (March 24, by telecon) and a meeting to discuss and set up a series of simulations to assess the effects of spacecraft charging on the SWA measurements (25 April, Noordwijk). Preparations continued for the SWA CDR this summer.

Venus Express and Mars Express - We continue to work on data from VEx and MEx (see lists; two papers led by MSSL were submitted in this period).

Publications – Refereed

Published


Carley, Long, Byrne, Zucca, McCauley, Gallagher, Quasi-periodic acceleration of electrons by a plasmoid-driven shock in the solar atmosphere, Nature Physics, doi:10.1038/nphys2767


Harvey, David, Thomas D. Kitching, Joyce Noah-Vanhoucke, Ben Hamner, Tim Salimans Observing Dark Worlds: A crowdsourcing experiment for dark matter mapping http://arxiv.org/abs/1311.0704 This describes the results of an online crowdsourcing experiment to improve algorithms to measure the positions of clumps dark matter in galaxy clusters.


Masters, A., L Stawarz, M Fujimoto, S J Schwartz, N Sergis, M F Thomsen, A Retinò, H Hasegawa, B Zieger, G R


Publications – Non-Refereed

Published


PhDs/MPhils Awarded

Roger Duthie passed his PhD viva on 3 December. His thesis title was “Multi-point observations of substorm related phenomenon in the Earth’s magnetotail”, and it made extensive use of data from the Cluster and Double Star missions. Roger is currently working at the British Antarctic Survey. David Shelton passed his viva with minor corrections on 20 May.

Invited Talks and Conferences

Graziella Branduardi-Raymont:
• participated in a meeting at ISSI (International Space Science Institute, Bern) on 21-23 October to discuss material and plans for a review paper on observations and modelling of the solar wind interaction with solar system bodies. Megan (our new PhD student, working with Graziella on high-resolution spectroscopy of AGN) attended another meeting at ISSI (9-13
December), with Graziella Skype-ing in, to discuss and plan the analysis of data from a multi-wavelength observing campaign of the Seyfert galaxy NGC5548.

Jack Carlyle:

Andrew Coates:
- Invited talk at the AGU Chapman conference on Magnetosphere-Ionosphere Coupling in the Solar System, Yosemite National Park, CA, 9-14 Feb - 'Plasma measurements at non-magnetic solar system objects'.

Len Culhane:

Lidia van Driel Gesztelyi:
- Invited talk on the solar cycle in the corona at the ISSI Workshop “The solar activity cycle: Physical causes and consequences” 11-15 Nov 2013, Bern, Switzerland.

Colin Forsyth:
- Invited seminar on Cluster’s observations in the auroral acceleration region to the space and astronomy groups at RAL Space on 12 February.

Colin Forsyth, Jonny Rae, Alice Foster, Nadine Kalmoni, and Louise Cooper:
- Attended the Hot Spring MIST conference in Bath, the first multi-day MIST meeting since 2005. Colin, Jonny and Alice gave talks on ‘Cluster’s observations of the substorm current wedge’, ‘Determining pre-onset substorm field topology from multi-point magnetospheric and ground based measurements’ and ‘Small Scale Magnetic Reconnection in the Solar Wind’ respectively.

Colin Forsyth and Jonny Rae:
- Attended the final ECLAT workshop held at the University of Leicester on 20-22 January. Colin gave a talk on his recent work examining the substorm current wedge with Cluster.

Louise Harra:
- Talk at Hinode 7 meeting in Takayama, Japan on preflare triggers - Nov 2013.

- Organized the UK solar mission forum held in December at UCL (with Richard Harrison).
- Space weather - the impact of CMEs and Flares - Imperial Symposium - 12 Feb.
- Solar-stellar flares, ISSI, 24 Feb.
- Remote sensing of the solar wind, ISSI, 3 March.
- Spectroscopy of solar activity - Queens University, 2 April.

Tom Kitching:
- lectured at the International Cosmology school at Tonale, Italy in December. There is a blog post associated with this here http://lateuniverse.wordpress.com/category/teaching/

Jason McEwen:
- keynote titled “Cosmological image processing” at the Image and Vision Computing NZ (IVCNZ) 2013 conference.

Tom Kitching and Jason McEwen:
- will host a Royal Society International Scientific Seminar on “Science on the Sphere” in July.

David Long:
- Seismology of the Solar Corona using SDO/AIA, RAL, 30 Jan.

Sarah Matthews:

Chris Owen:
- Invited to participate in the India-UK Research Seminars Meeting on “Plasma Processes in the Solar and Space Plasma at Diverse Spatial-Temporal Scales: Upcoming Challenges in the Science and Instrumentation” that took place 26-28 March, at ARIES, Nainital, India. He gave a presentation on the upcoming scientific opportunities associated with Solar Orbiter.

Peter Yuen:
For the JSPS Short Term Invitation Fellowship for Solar-C mission, details can be found at URL http://www.jsps.org/case_studies/2014/01/dr-peter-yuen-university-college-london.html
Planetary science group members attended RAS MIST meeting, 29 Nov. 2013. Two talks were presented:

- Wellbrock, A.; A.J. Coates, G.H. Jones, G.R. Lewis, J.H. Waite; Density profiles of different negative ions mass groups at Titan observed by Cassini’s CAPS electron spectrometer.

Several planetary group members attended AGU in San Francisco, making 3 (+CSA, GHJ) presentations and contributing to several others.

- Kimberley S. Birkett; Geraint H. Jones; Andrew J. Coates, Modelling Cometary Sodium Tails, P31A-1783.
- Tom Nordheim; Geraint H. Jones; Elias Roussos; Andrew J. Coates, Modelling of moon surface charging in the Saturn system – comparison with Cassini observations at Rhea and Hyperion, SM21B-2188.
- Anne Wellbrock; Andrew J. Coates; Geraint H. Jones; Jack H. Waite, Density profiles of different negative ion mass groups at Titan as observed by Cassini’s CAPS electron spectrometer, P53C-1883.
- Rudy A. Frahm; Heather A. Elliott; John D. Winningham; James R. Sharber; Craig E. DeForest; Timothy A. Howard; Esa J. Kallio; Susan McKenna-Lawlor; Firdeve Duru; David D. Morgan; Andrew J. Coates; Dusan Odstrcil; Rickard N. Lundin; Yoshifumi Futaana; Stanislav V. Barabash, Asymmetry of the Mars Ionosphere Boundary Altitude during a Solar Energetic Particle Event, P21A-1712.
- Masaki Fujimoto; Adam Masters; Tai-Duc Phan; Hiroshi Hasegawa; Sarah V. Badman; Christopher T. Russell; Andrew J. Coates; Michele K. Dougherty, The plasma depletion layer in Saturn’s magnetosheath, SM21A-2141.
- Nathan M. Pilkington; Nicholas A. Achilles; Christopher S. Arridge; Adam Masters; Nick Sergis; Andrew J. Coates; Michele K. Dougherty, A Global Model of Saturn’s Magnetopause, SM21A-2148.
- Philippe Garnier; Jan-Erik Wahlund; Madeleine Holmberg; Gethyn Lewis; Patricia Schippers; Michelle F. Thomsen; Sandrine Rochel Grimald; Donald A. Gurnett; Andrew J. Coates; Iannis S. Dandouras; Jack H. Waite, The influence of energetic electrons on the Cassini langmuir probe at Saturn : deriving large electron temperatures and small electron densities, SM21A-2152.

- Ronan Modolo; Norberto Romanelli; Patrick Canu; Andrew J. Coates; Jean-Jacques Berthelier; Cesar Bertucci; Francois Leblanc; Rodrigue Piberne; Niklas J. Edberg; William S. Kurth; Donald A. Gurnett; Jan-Erik Wahlund, Titan’s induced magnetosphere from plasma wave, particle data and magnetometer observations, SM21B-2192.
- Howard T. Smith; Abigail M. Rymer; Robert E. Johnson; Gethyn Lewis; Andrew J. Coates; Donald G. Mitchell; David T. Young, Possible evidence a Titan-generated Nitrogen Torus in Saturn’s Magnetosphere (Invited), P51I-08.

Members of both the Planetary Group and the Plasma Physics Group gave presentations at the EGU General Assembly 2014, Vienna, 27 Apr-2 May:

- Andrew Fazakerley gave a talk on ‘The Alfven Mission : A possible ESA M4 Mission Candidate’ and also presented a poster on ‘Cluster observations of electron and ion holes in the Auroral Acceleration Region.’
- Wellbrock, Anne, Andrew J. Coates, Geraint H. Jones, Tom A. Nordheim, Gethyn R. Lewis, and J. Hunter Waite, Observations of negative ions at Titan and other objects in the Saturn system using the Cassini CAPS Electron Spectrometer (ELS).
- Szegö, Karoly, Zoltan Dobe, Zsofia Bebesi, Andrew Coates, Lajos Foldy, Markus Fraenz, Andrea Opitz, and Daniel Vech, Ion heating near the ion composition boundary at Venus.
- Garnier, Philippe, Jan-Erik Wahlund, Mika Holmberg, Geraint Lewis, Patricia Schippers, Sandrine Rochel Grimald, Donald Gurnett, Andrew Coates, Iannis Dandouras, and Hunter Waite, Deriving large electron temperatures and small electron densities with the Cassini Langmuir probe at Saturn.
- Ali Varsani and Kirthika Mohan presented posters on ‘Microscale dynamics within Kelvin-Helmholtz waves’ and ‘Observation of ion bands in the inner magnetosphere’ respectively.

The planetary group were involved in two presentations at 45th Lunar and Planetary Science Conference, held 17-21 March:


- Andrew Fazakerley, Jonathan Rae and Colin Forsyth attended. Andrew gave a talk on new Cluster experiments to detect ion and electron phase space holes above the aurora. Colin gave an invited talk on the small-scale structure of the substorm current wedge and a poster on particle acceleration above the aurora observed by Cluster. Jonny gave a talk on determining the magnetotail location of substorm onset by comparing resonance frequencies on the ground and in space.

7th QB50 Workshop:
- The 7th QB50 Workshop was held on 28-29 Jan. at the Von Karman Institute in Brussels, Belgium. Ben Taylor and Rahil Chaudery attended and presented the Ion and Neutral Mass Spectrometer (INMS) to worldwide CubeSat providers to the QB50 project. The other two QB50 science units which are managed by MSSL were also presented in splinter sessions: The Flux (Phi) Probe Experiment (FIPEx) provided by TU Dresden and the multi Needle Langmuir Probe (m-NLP) provided by University of Oslo.

The 1st ESA-CAS workshop “Planning for a joint scientific space mission - Chinese Academy of Sciences (CAS) - European Space Agency (ESA)” in February in Chengdu (China):
- Attended by Jonny Rae and Andrew Fazakerley who presented a poster entitled “AurEx: A low-altitude multi-spacecraft mission to determine spatial and temporal scales of magnetosphere-ionosphere coupling.”

Outreach
Talks were given by:

Deb Baker:
- Solar physics for A-level students at City of London Freemen’s School.

Kim Birkett:
- ‘Comets and Curry’ open evening at The Observatory Science Centre Herstmonceux.

Colin Forsyth:
- “Our volatile Sun: Explosions, Ejections and Space Weather” at the British Astronomical Association meeting in Milton Keynes on “Stars! Eclipses and Explosions”.
- National Space Centre careers day for A-level students on 27 January.

Louise Harra:
- Careers in space science at Banbridge Academy.
- Presidency of the physics and astronomy
section of the British Science Festival.
Andrew Coates:
- Talk “Europe goes to Mars” at Croydon Natural History & Scientific Society, 18 Nov. 2013.
- Space lectures (2) at Winchester Science Centre on Mars Exploration and the ExoMars mission, 8 Jan.
- Voyager and Cassini at SuperCollider event (in collaboration with Fat Possum and Lefse Records) celebrating the release (on Record Store day, 19 April 2014) of The Space Project 14 track box set, 15 April, at Ace Hotel London, Shoreditch.

It has been noted that posters advertising the economic virtues of the town of Stevenage on the London Underground escalators at Euston Station include one, which features an artists impression of the Solar Orbiter spacecraft!

Media Broadcasts and Features
Andrew Coates:
- Interview for BBC radio 4 6pm and midnight news, on Titan’s hydrocarbon-rich atmosphere, 1 October 2013
- Interview on ExoMars and life beyond Earth, for “FORMAT TV”, REN TV channel (Russia), documentary on “The Earth and Space”, 4 October 2013.
- Mentioned in Guardian on SAFER trial and ExoMars mission, 15 Oct 2013
- Quoted in Space:UK (Winter 2013) on SAFER trials
- Interview for BBC News on Mars exploration and India and China space programmes, appeared 20 October 2013.
- Interview for BBC TV news on Mars exploration and India and China space programmes, 23 October 2013 (used 5 Nov BBC World).
- Interview for Space Boffins podcast on SAFER trial and ExoMars mission, appeared 13 Nov 2013
- Info for The Times on NASA Maven mission (also mentioned MEx, ExoMars), 15 Nov 2013
- Interview on BBC World Service (Newsday programme) on Earth’s magnetic field and the ESA Swarm mission, 22 November 2013.
- Interviews for the Metro, BBC Surrey and BBC News Channel on comet Ison, 28 Nov 2013.
- Interview on Voice of Russia on the Rosetta mission, 10 December 2013.
- Info for BBC News (and second article) on Chinese moon landing, 14-15 December 2013.
- Interview on Sky News, 15 December 2013, on Chinese moon landing (mentioned ExoMars also).
- Interview on observation of an inner Oort cloud object for The Times, 27 March.
- Interview on ExoMars and PanCam for BBC News, 24 March, used 28 March Online, BBC 1 Breakfast, BBC 1 O’clock News and BBC World.
- Interview on Enceladus ocean, BBC News online, BBC1 10 O’clock News, BBC News Channel and online, 3 April.
- Press releases on the ExoMars landing site selection workshop in March, quoting Andrew Coates, were featured on the UCL and MSSL websites.

Lucie Green:
- Sky at Night monthly astronomy programme
- Inside Science on BBC Radio 4
- Richard Bacon Show on BBC5Live
- BBC World Service

Tom Kitching and Jason McEwen:
- Several new posts are available on the MSSL astro group blog page and Tom and Jason’s blog.
Other News Items/Activities

**Ion beam facility:**
The In-situ Detector Systems group has successfully installed an ion beam facility in the MSSL clean room. This equipment is capable of producing a beam of ions with energies up to 40 kV and directing that beam onto a small target. The ion beam uses a Duoplasmatron source capable of producing positive and negatively charged ions using most ion species. Together with the wide area electron source already installed, the Low Energy Plasma Instrument Calibration (LEPIC) facility is now significantly closer to simulating the space plasma environment that the in-situ detectors are designed to work in. The ion beam has already been used successfully in the testing of the QB50 Ion and Neutral Mass Spectrometer for the precursor flight opportunity.

![Image 3: The ion beam](image)

**Planetary Science group:**
We continue to prepare for the 6th Alfven Conference hosted by the Planetary Science Group at UCL. The meeting is convened by Andrew Coates supported by a Local Organising committee (co-chair Anne Wellbrock and including several UCL-MSSL staff and students) and an international Scientific Organising committee. The theme is Plasma interaction with solar system objects: Anticipating Rosetta, Maven and Mars Orbiter Mission, 7-11 July. Several meetings of the Local Organizing committee took place in this period and the meeting has been well supported by the international community.

The main topics are comets, Mars, Venus, outer planet moons and Earth's moon - especially common processes with comets, and reviewing current knowledge prior to the arrival of the new missions. We will review mankind’s current knowledge of cometary plasma interactions, as well as relevant processes at Mars, Venus, and outer and inner solar system moons. Associated with the conference, a public talk will be given on Tuesday 8th July at UCL, on The Rosetta Story: A Comet, an amazing spacecraft and their journey around the Sun, by Dr Matt Taylor, ESA Rosetta project scientist.

Thanks to the Alfven 6 local organising committee: Anne Wellbrock (co-chair), Geraint Jones, Chris Arridge, Rosalind Medland, Gethyn Lewis, Leonardo Regoli, Marianna Felici, Jamie Jasinski, Nick Achilleos, Tom Nordheim, William Dunn, Kimberley Birkett, Yudish Ramanjooloo, Andrew Coates (convener).

Chris Owen attended a meeting of the Editorial Board for Annales Geophysicae in Vienna during the week of the EGU (30 Apr.). Discussions on the journals open access policies and possible major changes to its policies for refereeing of submitted manuscripts were discussed.

Sarah Matthews was guest speaker and presented the prizes at Burgess Hill School presentation evening.

ESA Solar System and Exploration Working Group Andrew Fazakerley participated in a meeting of the ESA Solar System and Exploration Working Group in Madrid on 21-22 Oct, as well as a follow-up meeting of the UK Space Agency Science Programme Advisory Committee in London on 14 Nov.


**Next Issue**
The next issue of The Newsletter (Volume 11, Issue 3) will be published in August 2014. This will cover activities from 1 May 2014 to 31 July 2014.