

EuroPlanet Workshop in London, 10-11 May 2018:
‘New Views of Jupiter: Pro-Am Collaborations during and beyond the NASA Juno Mission’

Dates: Thursday 10 May & Friday 11 May, 2018.

Venue: Royal Astronomical Society, Burlington House, Piccadilly, London.

Scientific organisers: Leigh Fletcher (1), John Rogers (2), Ricardo Hueso (3), Glenn Orton (4), Marc Delcroix (5).

Local organisers: John H. Rogers & Leigh N. Fletcher.

Affiliations: (1) University of Leicester, UK; (2) British Astronomical Association, UK; (3) Universidad del Pais Vasco, Spain; (4) NASA Jet Propulsion Lab, USA, (5) Société Astronomique de France.

EuroPlanet contact: Manuel Scherf (Austria).

Background:

Amateur planetary imaging can provide a valuable resource for scientific study. Images from amateurs around the globe are commonly used to augment professional ground-based and space-based studies of Jupiter’s atmospheric features, in view of their complementary wavelength coverage and their ability to keep track of complex time-varying phenomena. In recent years there has been increasing direct collaboration, especially during the NASA Juno mission in which the spacecraft camera (JunoCam) is intended for ‘public outreach’ but is also producing new scientific discoveries.

A EuroPlanet-sponsored workshop was held in May 2016 in Nice, France, and was very successful in informing amateur and professional groups of each others’ capabilities and needs and engendering cooperation for future studies of Jupiter. Juno successfully entered orbit around the giant planet in July 2016, and is delivering new insights into the origins, interior, atmosphere and magnetosphere from its regular perijoves. Along with many ground-based professional observations, amateurs are playing a significant role in tracking the changing features on the planet that are relevant to targetting of both JunoCam and the Microwave Radiometer (MWR). By May 2018, Juno will be in the middle of its mission, so this will be an ideal time to take stock of the achievements to date, and to plan for further pro-am collaboration in future years regarding professional Earth-based observing programmes.

Structure and content of the Workshop:

The workshop aims to promote collaboration between amateur astronomers and professional space scientists in studies of the atmosphere of Jupiter, in support of the ongoing NASA Juno mission and future ground-based studies. The meeting will bring together ~30-50 amateur and professional observers and researchers from Europe and across the world, including members of the NASA Juno project. We will invite ~20 leading amateurs (some who take images, some who analyse and interpret them, and some who develop software tools), plus ~10 professionals. Invitees will be principally from Europe, but will include a few leading amateurs in the Far East and Australia if they are able to fund their own travel. Remaining places may be offered to selected amateurs and professionals on an unfunded basis.

The programme will include both professional talks (typically ~20-30 minutes) and amateur talks (typically ~5-20 minutes). The talks are intended to promote lively interaction, with substantial time allocated for discussion in each session.

Topics to be considered will include:

- >>Review of scientific results from Juno atmospheric experiments – including the Jovian Infrared Auroral Mapper, as well as JunoCam and MWR (Dr. Orton).
- >>Review of Jupiter’s climatic cycles and recent/forthcoming opportunities to obtain multi-wavelength observations at different stages of them.
- >>Outline of recent and ongoing contributions of amateur astronomers to Jupiter science.
- >>Coordination of amateur observations with Juno and with ground-based observations, considering the most scientifically valuable goals.
- >>Updates of recent technical developments in the last few years (cameras, optics, software tools), and discussion of desirable improvements and innovations.
- >>Consideration of the existing databases of amateur and professional images, and whether they can be improved for contributors and users.

An online forum will be established prior to the meeting to identify topics for discussion, and to suggest individuals (either professional or amateur) to lead discussion sections.

Funding:

The workshop is principally funded by EuroPlanet (with funding from the EU), with major contributions from the the European Research Council and the Royal Astronomical Society. These make it possible to provide the venue and refreshments without charge, and to reimburse invited amateur participants for travel and accommodation within certain limits explained below.

Reimbursement (amateurs only):

Given the nature of the workshop, all attendance is by invitation only. Professional researchers are expected to cover their own expenses to attend the workshop. A small registration fee may be levied on additional participants.

The funding is limited and will only cover costs of hotels and travel for invited amateur participants, within the following limits:

- Hotel costs (including breakfasts) will be reimbursed up to £95 (112 euros) per night (2 nights for UK participants, 3 nights for all others), as the Imperial Hotels Group near Russell Square, London, can provide good single rooms within this limit.
- Travel costs will be reimbursed up to £38 (45 euros) for UK participants, £195 (230 euros) for other European participants, but not for people from other continents. (Under EuroPlanet rules, transport cannot be covered if it occurs more than one day before or after the workshop.)
- Lunch and refreshments will be provided free of charge at the RAS. Evening meals will be at individuals’ own expense.

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