Community Support at the Herschel Science Centre

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HERSCHEL SPACE OBSERVATORY

esa

A ground segment element

- The (Ground Segment) scientific operations of Herschel will be conducted in a 'decentralised' manner.
  - the Herschel Science Centre (HSC)
    - Single-point interface to the science community and the outside world in general, provided by ESA, and based at ESAC (NHSC@IPAC for the US community)
  - 3 dedicated Instrument Control Centres (ICCs)
    - one for each instrument, provided by the respective PIs. Each ICC is responsible for enabling the operation of its instrument, and also for the provision of calibration and data reduction tools for all data generated
  - a Mission Operations Centre (MOC)
    - provided by ESA, which will be responsible for the execution of all in-orbit operations, based at ESOC

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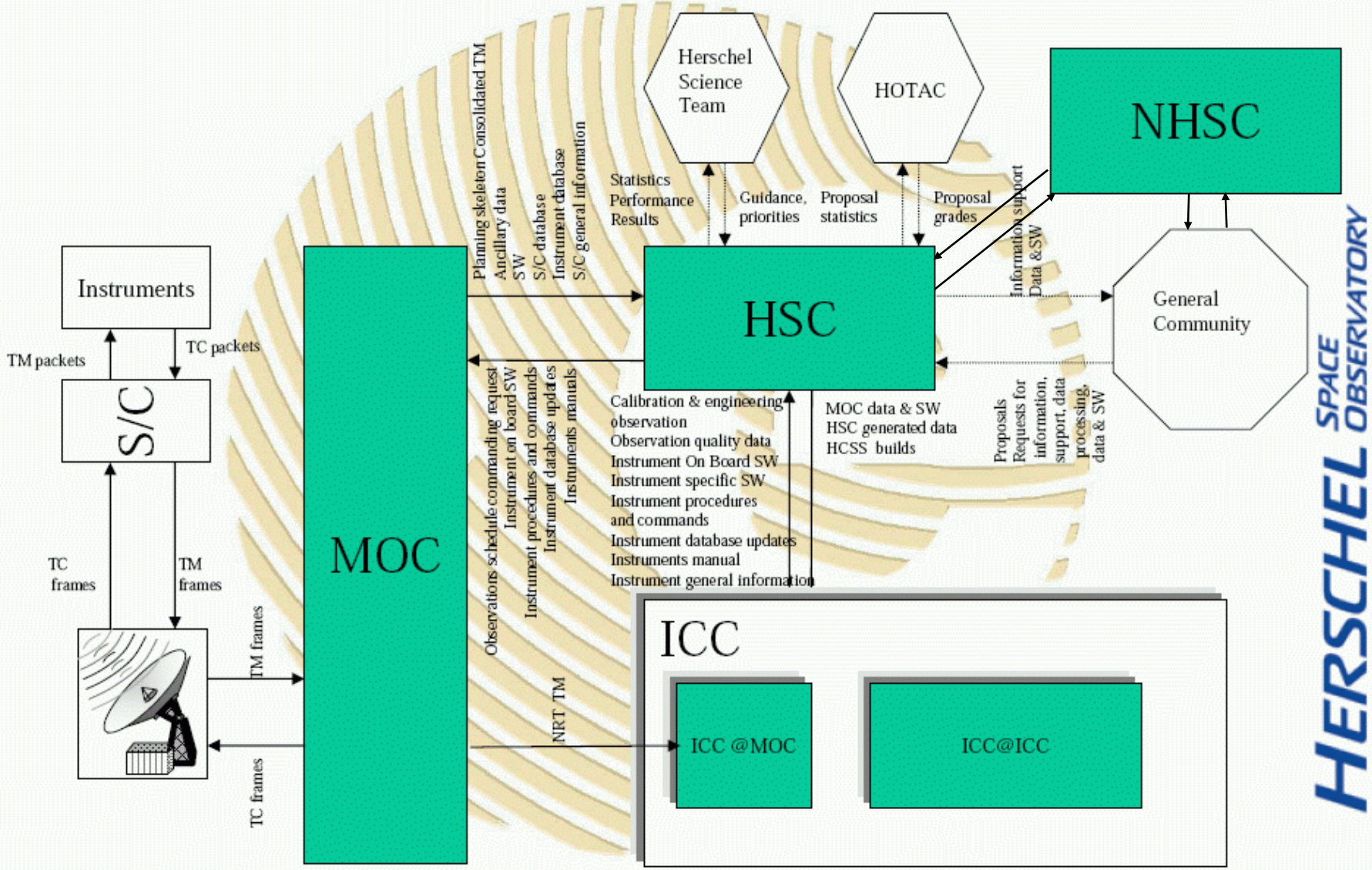
Ground segment



HSC responsibilities

- The HSC is the interface to the community at large, responsible for all 'observatory' aspects of the mission:
  - Overall science coordination and scientific mission planning strategy, taking guidance from the Science Team
  - Calls for observing proposals, and the handling of the proposals
  - Set up and support to HOTAC for time allocation and proposal rating
  - General community support throughout all mission phases ensuring that the necessary resources and tools are made available in a timely manner
  - 'Cross-calibration' between Herschel instruments, and between Herschel and other facilities
  - Support to ESA outreach and science communication activities

HSC functional tasks

- Ultimate goal: maximize the scientific return of the mission throughout all mission phases, under the guidance of the HST and the support from the HOTAC
  - HCSS design together with ICCs, development, coordination and maintenance, including integration of its subsystems
  - Provide, manage and maintain the central Herschel database, and all of the HSC software subsystems
  - Populate HCSS with Herschel test, characterisation, science and operational data
  - Provide interfaces with the astronomer for all community interaction and between all other ground segment components
  - Configuration control and product assurance of all HSC items
  - Scientific mission planning
  - Data processing and data archiving including quality control information

HCSS

- The Herschel Common Science System (HCSS) is an integrated software system that includes all packages necessary to work with Herschel data in a single common environment
- Includes:
  - Observation planning and proposal submission tools like HSpot
  - Data processing tools
    - The on-line Herschel Data pipelines will run as ‘scripts’ within HCSS; further interactive processing capabilities will be added, possibly improving on that which can be done by the automated system
    - The HCSS data processing system is intented to be a complete and well tested environment from which all necessary processing of Herschel data can be done

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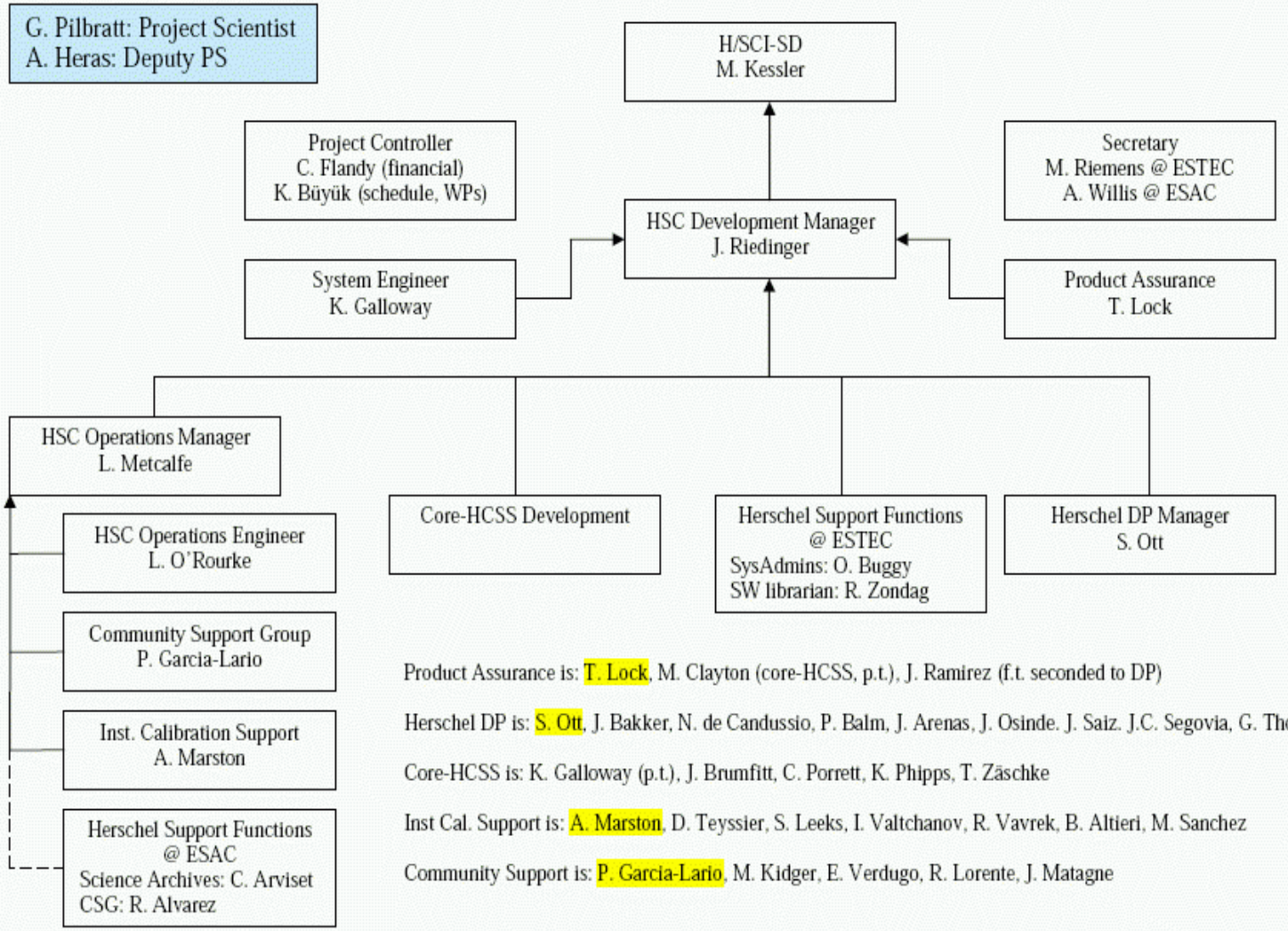
HSC organigram



HERSCHEL SPACE OBSERVATORY

Community Support tasks

- Ultimate goal: support the scientific community in exploiting the Herschel science opportunity throughout all mission phases,
  - Provision of information to the Herschel astronomical user community
    - mainly through the web (http://herschel.esac.esa.int)
    - also through periodic newsletters and workshops
    - collaborating in the organisation of special Herschel sessions in scientific conferences…
  - Prepare and issue 'calls of proposals', including associated documentation and tools
  - Support the proposers during proposal submission process
  - Support the HOTAC during the review process of proposals
  - Inform proposers, management and general community of the review process results
  - Maintain a 'central Helpdesk'
  - Support to the ESA Science Communication office in providing information to the general public

… additional future tasks

- During operations, community support tasks will also include:
  - Assistance to maximise the output from approved programmes, including tune-up of proposals
  - Monitor uplink changes and inform the users of the impacts on their programmes
  - Monitor the overall execution status of programmes
  - Monitor and resolve duplicate pointings
  - Address data right issues
  - Assist the observers with the data reduction of their observations
  - Organisation of specific workshops to improve dissemination of satellite, instrument and data reduction knowledge
  - Maintain an overview of the data processing software and user test new versions of the pipeline as they become available
  - Provide data reduction documentation (Data User's Manuals) – in collaboration with the ICCs
  - Continuously identify additional needs and requirements from the astronomical community

http://herschel.esac.esa.int

- Herschel General Information
  - Latest news
  - Mission & Instruments overview
  - Workshops and Herschel related conferences
  - Press releases / Outreach
  - Links to other Herschel sites
- Herschel AO documentation and tools
  - ‘How-to’ step by step, overall information & schedule
  - Observer’s Manuals, Policies & Procedures
  - List of approved KPGT programmes and Reserved Observations List
  - HerschelFORM, ROL search tool, HSpot, HCNE,HBE,..
  - AO latest news
- Herschel user services
  - User Registration
  - Helpdesk
  - Proposal Handling
  - Subscription to Mailing Lists

Herschel Science Centre - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://herschel.esac.esa.int/home.shtml

Google Main Page - Wikipedia, ... @LaTeXe help 1.6 Jython Course Outline lf152, Applications: Cre... Ivan's DocBook HOWTO

Research & Science Home | ESA Public Information Site | Sci-Tech Portal | Herschel Public Information Site | Herschel Sci-Tech Portal

esa Herschel Science Centre European Space Agency

Astrophysics Missions | Planetary Exploration Missions | Solar Terrestrial Science Missions | Fundamental Physics Missions

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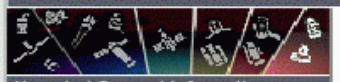


Herschel General Information

- Herschel Science Centre Home
- Latest News
- Mission Overview
- Science Instruments
- Community Information
- Conferences/Workshops
- Press Releases
- Useful links

Herschel AO for Key Programmes

- AO 'how-to' step-by-step
- AO Introduction and Schedule Overview
- AO Documentation
- AO Tools
- Guaranteed Time Key Programmes
- AO Latest News

Herschel User Services

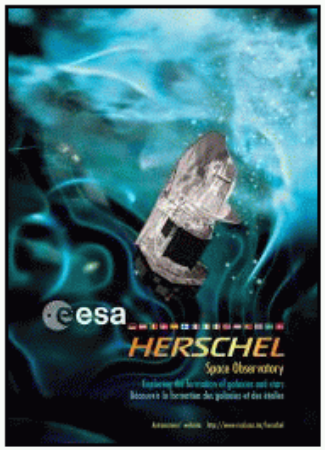
- Services Overview
- Helpdesk
- Proposal Handling
- Subscribe to Herschel eMail list

Herschel User Registration

- User Registration
- Lost/Broken Password ??

HERSCHEL

Exploring the formation of galaxies and stars
Découvrir la formation des galaxies et des étoiles



Welcome to the **Herschel Astronomers' website** provided by the Herschel Science Centre (HSC) for the scientific community. For additional ESA Herschel websites see Useful links.

Herschel, short for the `Herschel Space Observatory', is the fourth `cornerstone' mission in the ESA science programme. It will perform photometry and spectroscopy in approximately the 55-672 µm range and is designed to observe the `cool universe'; it has the potential of discovering the earliest epoch proto-galaxies, revealing cosmologically evolving AGN/starburst symbiosis, and unravelling the mechanisms governing the formation of stars and planetary systems, such as our own.

Herschel will be launched in 2008 and operated as an observatory facility. Commencing about six months after launch it will offer three years of routine science observations. It will be available for the worldwide scientific community, with roughly two thirds of the observing time being `open time', which will be allocated through a standard competitive proposal procedure.

Open Time Key Programme AO!

- Herschel Key Programme Announcement of Opportunity was issued on 1 February 2007 and the GT KP phase has now been completed. The observing planning tool HSpot has now been updated for OT KP phase 1, more tools have been added and the AO documentation has been updated. **The updated AO documentation and tools are available on this website** (see menu on the left). The user services the HSC provides are summarised in the Services Overview page.
- The Herschel observation planning workshop including hands-on HSpot demonstrations and practice will be held at ESAC on 20-21 September 2007. The Preliminary Agenda and the List of Participants are now available.
- The Herschel Open Time Key Program Workshop was held in ESTEC, Noordwijk on 20-21 February 2007. Presentations now available online.

Last updated: Thursday, 06-Sep-2007 17:45:24 CEST

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email the HSC webmaster

Done

Now: Mostly Cloudy and 16°C Today: 26 °C Thu: 27 °C Fri: 27 °C

HERSCHEL SPACE OBSERVATORY

Overall AO schedule

1 February 2007: AO for Key Programmes

5 April 2007: Submission deadline for GT KPs

(June 2007: Phase 2 data entry)

5 July 2007: Announcement of GT KP proposals and Reserved Observations

25 October 2007: Submission deadline for OT KPs

(January-February 2008: Phase 2 data entry)

28 February 2008: Announcement of accepted OT KP proposals and observations

HERSCHEL SPACE OBSERVATORY

User registration

- A single door to access all Herschel services
  - Submission of questions to Helpdesk
  - Subscription to Herschel Newsletter and general news
  - Subscription to topic-specific mailing lists
    - Edit your notification levels
  - Proposal submission using HSpot
  - Proposal handling through dedicated web pages
    - View status of submitted proposals
    - View status of approved AORs during operations

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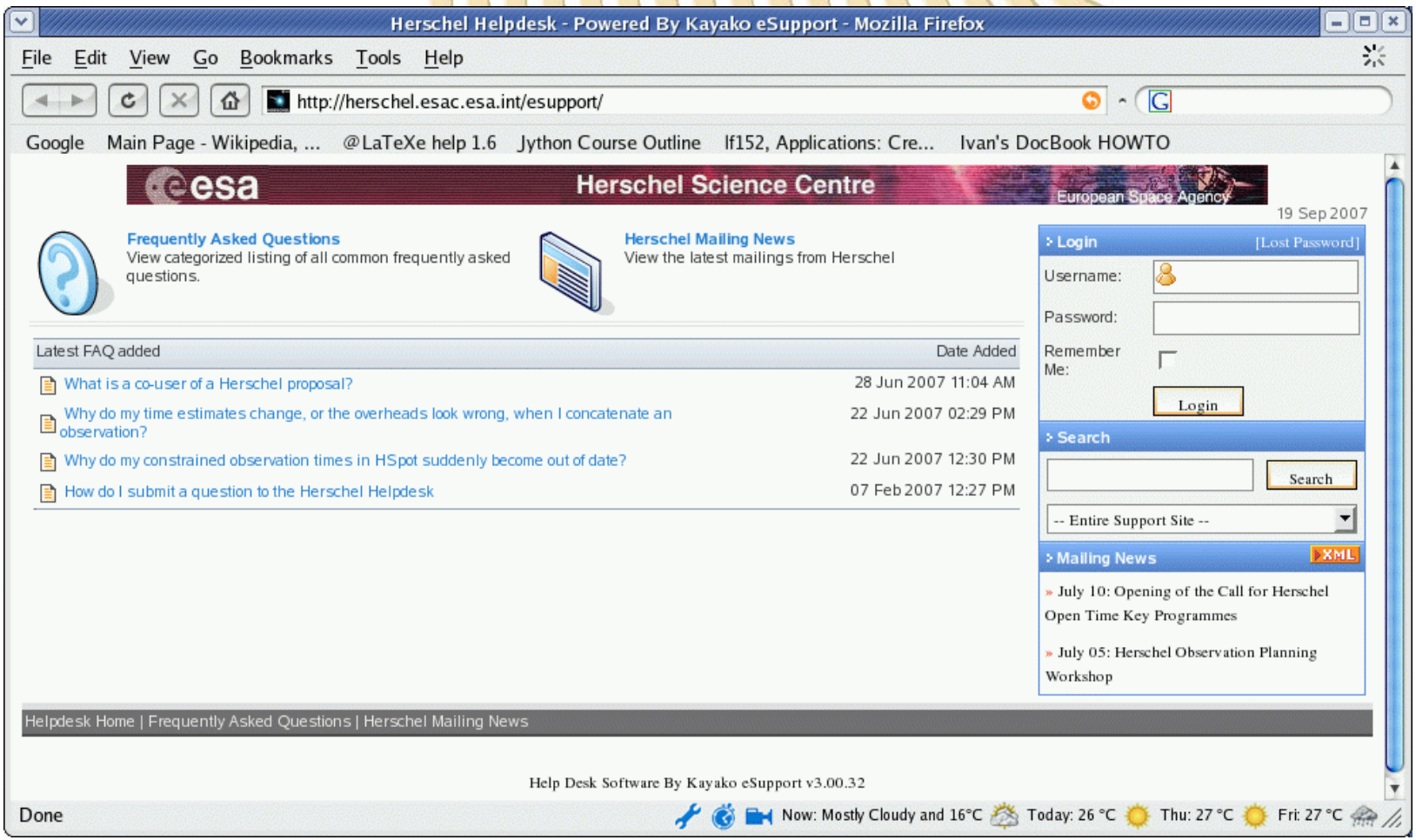
Helpdesk

- The Herschel helpdesk system is a web tool based on a commercial software called ‘esupport’ from Kayako Infotech Ltd (http://www.kayako.com/)
- For registered users only (no spam)
- Accessible through the HSC main web site:
  - Users can submit queries/questions classified by the user according to pre-defined topics in order to aid quick and accurate processing
  - Upon submission, users receive an automatedly generated acknowledge e-mail message with a ‘ticket id’ (do not reply!) which can be used to monitor the status of the query at any moment
  - Standard timescale for reply is a few working days
  - FAQ (Knowledgebase) + Mailing list (news) functions available
- In operation since 1 February 2007

Helpdesk

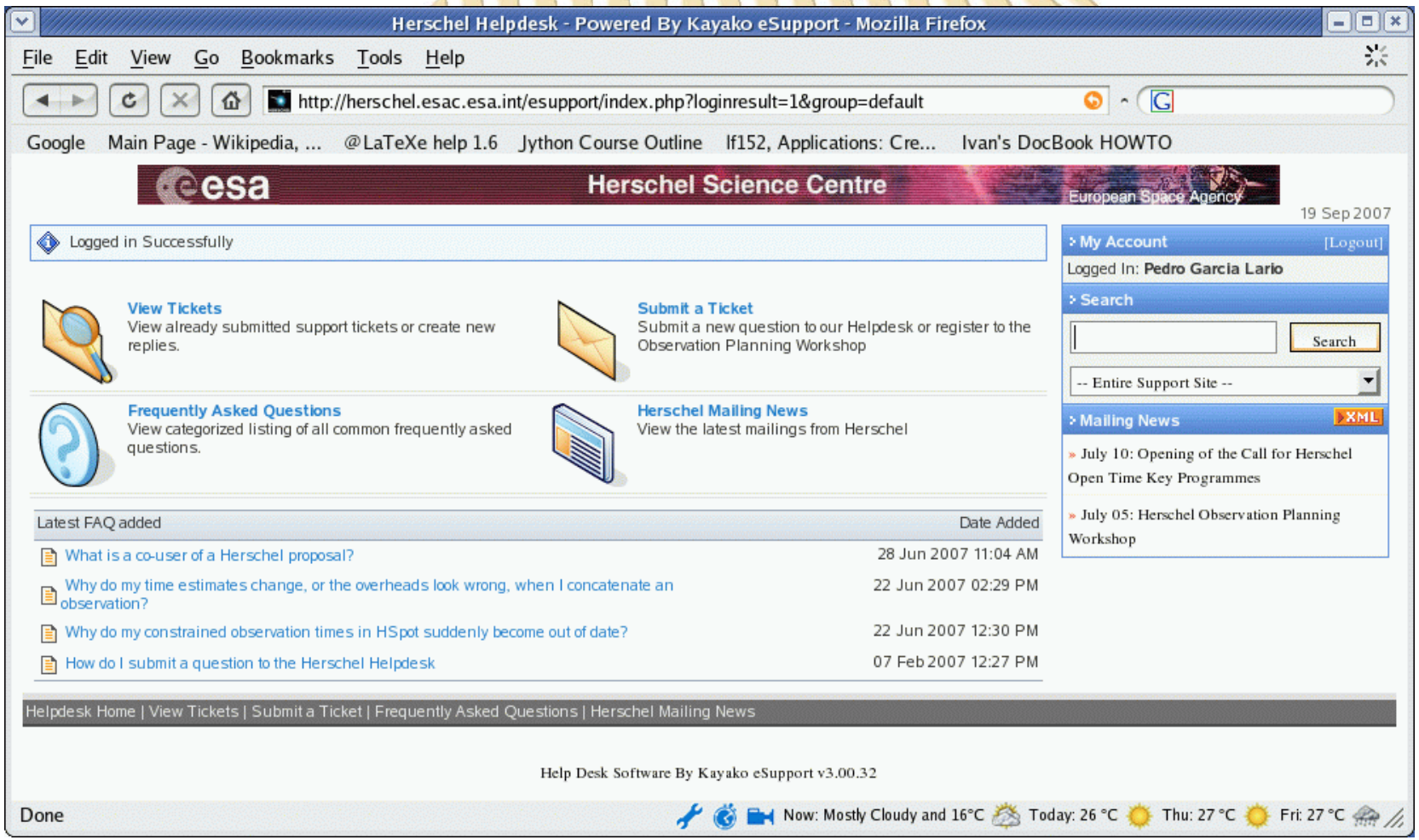
- Access to helpdesk: log-in page



HERSCHEL SPACE OBSERVATORY

Helpdesk

- Initial page once logged-in



HERSCHEL SPACE OBSERVATORY

Proposal Handling

- To monitor the status of your submitted proposals and AORs (for PIs and co-users) at any moment during the mission
- To access HOTAC comments after the review process is completed
- To add co-users to your proposals
  - Co-users are authorised to retrieve and submit/resubmit new versions of the proposal during Phase 1 and Phase 2 and have full access to the information provided through the web

AO documents

- Appart from the AO itself, the following documents are available at the HSC web page:
  - Policies & Procedures document for this call
  - Observers' Manuals
    - Herschel Observers' Manual
    - HIFI Observers' Manual
    - PACS Observers' Manual
    - SPIRE Observers' Manual
    - SPIRE PACS Parallel Mode Observers' Manual
  - HSpot Users' Guide
  - AO Latest News

Observer tools

- The HerschelFORM PDFLaTeX package; adapted from ESOFORM, used for the ESO telescopes in Chile (new!)
  - LaTeX proposal submission template form and associated style files to be used in the OT KP call to produce the PDF file containing the text of your proposal
- The Reserved Observations List search tool (new!)
  - To search for duplicated observations in the Reserved Observations List, the list containing all AORs approved in the previous (GT KP) part of this call
- …plus the Herschel Observation Planning Tool (HSpot); (joint ESA/NASA development) adapted from Spitzer SPOT

AO complementary tools

- In addition to the main AO tools:
  - Herschel Background Estimator:
    - This is the infrared background estimator provided in HSpot, an extended version of the tool developed for Spitzer
    - Provides the total brightness at a given sky position, as well as the breakdown into its components over the entire Herschel wavelength range.
  - Herschel Confusion Noise Estimator:
    - Provides estimates for the confusion noise (i.e. uncertainty of flux determination due to the sky background) for the photometric bands of the Herschel PACS and SPIRE instruments.
    - Specific for the selected observing mode and derived considering the two main astrophysical components in the far-infrared: the Galactic cirrus emission and the cosmic infrared background.

HerschelFORM PDFLaTeX package

- Proposals must be written using this LaTeX package in this OT KP call
  - Strict control of page limits per section
  - Homogeneous style in PDF output file
  - Figures and Tables are part of the proposal text (no extended appendices allowed)
- No need of generating an Observations Summary List with all AORs as part of the proposal text
  - Summary description of proposal components (‘sub-proposals’) instead, accompanied by a summary table, indicating number of AORs per observing mode and subset affected by time or grouping constraints, if applicable

ROL search tool

- Tool to search for duplicated observations in the Reserved Observations List, containing all AORs approved in the previous GT KP call
  - Java based tool (requires v1.5 or higher)
  - Still preliminary version only; enhancements expected in the next few days
  - A first step in duplication analysis: useful to search for potentially duplicated AORs
- Detailed duplication analysis may need use of option 'View accepted proposals' in HSpot
  - Necessary to get detailed information on observational parameters for most AOTs
- Duplication policies will be presented later in this workshop

HSpot

- This is the Herschel observation planning tool, available for download at the HSC web pages
- Proposals must be submitted using this tool; same look and feel as Spitzer's SPOT
- Written in JAVA language
  - JAVA 1.5 required
- Easy installation via an installer script
- Internet connection needed to establish communication between client and server (e.g. for estimation of observing times or to access images/catalogues)
- *HSpot allows you to design, plan, and optimise an observation, and to determine how much time will be required to execute it*