



# Duplications: Policies and search tools

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# Duplications: Policies (I)



Duplication of science → Same position of the sky covering the same spectral region:

- Same instrument & AOT
- PACS Line Spec & PACS Range Spec
- PACS Phot & // mode
- SPIRE Phot & // mode

Exceptions covering imaging and spectroscopy:

- Less than 25% of overlap
- Factor 2 difference in sensitivity

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# Duplications: Policies (II)



Reserved Observation List: all approved observations

- User should check this list for potential duplications
- User should justify a potential duplication or explain why an observation should not be considered as duplication
- All potential duplications are analysed on a case by case basis

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# Duplications: Tools



To check duplications is a two steps process:

- HROST to search for potential duplications
- HSpot to verify potential duplications found with the HROST by inspecting particular AORs

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# Duplications: HROST



Herschel Science Centre

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

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

esa | Herschel Science Centre | European Space Agency

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

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## Announcement of Opportunity for Open Time (OT1)

### Herschel Observing Tools

The tools related to observing planning with Herschel consists of:

- The **HerschelFORM PDFLaTeX** package for writing your Herschel proposals with the applicable style and page rules.
- The **Herschel Reserved Observations Search Tool (HROST)**, providing easy search of existing AORs around a given point on the sky within a specified radius.
- The **Herschel observation planning tool HSpot** for designing your observations requests and calculating the required observing times.

### HerschelFORM PDFLaTeX package

The HerschelFORM PDFLaTeX package with two proposal templates, one for "normal" proposals (requesting less than 100 hours) , and another one for "large" proposals (requesting 100 hours or more). Herschel proposals must be written using this HerschelFORM PDFLaTeX package. The proposal templates will force you to write a proposal that follows the applicable style and page rules. Please follow the instructions given in the appropriate ReadMe file.

### Herschel Reserved Observations Search Tool (HROST)

Checks for potential duplications (see the [Herschel Duplication Policies](#) document) between your planned observations and already approved AORs can be made using the Herschel Reserved Observations Search Tool (HROST). The tool will enable you to search all the AORs included in the current Reserved Observations List in a simple fashion through a java-based web interface [available here](#) (requires Java 1.6 or higher).

Once you start the application you can make queries by entering a position in the sky and a search radius as input and the tool will return as output a summary description of all AORs in the database overlapping your search area.

Potential duplications found using this tool can be further investigated in detail using HSpot. You can access and download those AORs of your interest by using the option "View accepted proposals" under the 'File' menu of HSpot. Alternatively, the AORs for the accepted Programs will be accessible directly from the following large XML files (**not yet available**):

- ROL\_galactic.aor
- ROL\_extragalactic.aor
- ROL\_SSO.aor

In addition, [the full Reserved Observations List in ASCII csv format is provided "here"](#) which may be of use to the proposer since it allows the user to organise the material themselves.

### Observation planning tool - HSpot

**Herschel General Information**

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

**Herschel Announcement of Opportunity (OT1)**

- Introduction
- 'How-to' step-by-step
- Documentation
- Tools**
- AO Latest News

**Herschel Observing**

- Observing Log
- Observing Schedule
- AOTs Release Status
- Key Programmes
- GT1 Programmes

**Herschel Data**


- Data Processing
- Data Products
- HIPE Download
- HSA Access

**Herschel User Services**

# HROST Queries



Herschel Reserved Observations Search Tool

Herschel Science Centre  European Space Agency

Help

Reserved Observations Search:

Fixed Targets | Moving Targets

Equatorial | Ecliptic | Galactic

Single Target

RA  (hh mm ss.ss / degrees)

DEC  (+-dd mm ss.s / degrees)

Radius  arcmin

Epoch

Target List

Select Target List File...


Target Name

Target Name  SIMBAD

Radius  arcmin

Search Reserved Observations Clear Query Paramet...

Status Information:




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# HROST Result (I)



Herschel Reserved Observations Search Tool

Herschel Science Centre  European Space Agency Help

Reserved Observations Search:

RA	DEC	Target Name	Distance (arcmin)	Instrument	ObservingMode
20h17m42.31s	+36d42m32.8s	s104csnew-1	2.87114	PACS	Range Spectroscopy pointed
20h17m42.31s	+36d42m32.8s	s104csnew-1	2.87114	PACS	Range Spectroscopy pointed
20h18m10.14s	+36d46m21.4s	s104off	5.70124	SPIRE	Spectroscopy
20h18m00.84s	+36d50m14.3s	s104irs3	6.13602	SPIRE	Spectroscopy
20h17m56.60s	+36d45m39.0s	sh104irs1	2.94100	SPIRE	Spectroscopy
20h17m50.80s	+36d47m43.6s	s104cs1_new-1	2.91313	SPIRE	Spectroscopy
20h17m29.62s	+36d48m30.2s	sh104irs2	3.97227	SPIRE	Spectroscopy
20h17m52.51s	+36d42m48.2s	s104pdr	3.36163	SPIRE	Spectroscopy
20h17m56.60s	+36d45m39.0s	sh104irs1	2.94100	SPIRE	Spectroscopy
20h17m39.44s	+36d44m10.6s	sh104rHII	1.34673	SPIRE	Spectroscopy
20h17m41.42s	+36d42m22.4s	s104cs	3.04620	SPIRE	Spectroscopy
20h17m42.00s	+36d45m25.0s	Sh104	0.00268	SPIRE	Large Map Photometry
20h17m51.30s	+36d48m34.0s	s104cs1	3.66273	SPIRE	Spectroscopy
20h17m42.00s	+36d45m25.0s	Sh104	0.00268	PACS	Scan Map
20h17m39.44s	+36d44m10.6s	sh104rHII	1.34673	PACS	Range Spectroscopy pointed
20h17m39.44s	+36d44m10.6s	sh104rHII	1.34673	PACS	Range Spectroscopy pointed
20h17m42.00s	+36d45m25.0s	Sh104	0.00268	PACS	Scan Map

Execute a new Query      Save results as ASCII

Status Information:  
 RA: 20 17 42.00 DEC: +36 45 25.0 RADIUS: 5 (arcmin) EPOCH: J2000

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# HROST Result (II)



Herschel Reserved Observations Search Tool

Herschel Science Centre Help

Reserved Observations Search:

Sub-Mode	Band (HIFI/SPIRE)	Spectrometer	AOR radius (arcmin)	Total Time	Target Type	Proposal ID	NAIF I
point			0.55400	0.615278	Fixed Single	KPGT_fmotte_1	
point			0.55400	0.476944	Fixed Single	KPGT_fmotte_1	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
			2.60000	0.425833	Fixed Single	SDP_aabergel_3	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
			2.60000	0.189444	Fixed Single	SDP_aabergel_3	
			2.60000	0.425833	Fixed Single	SDP_aabergel_3	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
			2.60000	0.189444	Fixed Single	SDP_aabergel_3	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
large			14.14200	0.224722	Fixed Single	SDP_aabergel_3	
			2.60000	0.200833	Fixed Single	SDP_aabergel_3	
largeScan			16.54600	0.254722	Fixed Single	SDP_fmotte_3	
point			0.55400	0.476944	Fixed Single	SDP_fmotte_3	
point			0.55400	0.615278	Fixed Single	SDP_fmotte_3	
largeScan			16.54600	0.289722	Fixed Single	SDP_fmotte_3	

Execute a new Query      Save results as ASCII

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# HROST More queries



- Coordinates in degrees
  - Coordinates in Equatorial/ Galactic/ Ecliptic
  - By Target name resolved with SIMBAD or NED
  - A list of targets combining coordinates and names:
    - m51, 5, ned
    - 20 17 42.00, +36 45 25.0, 16.26300048828125
    - 5 41 00.00, -2 27 40.0, 7.053999900817871
    - crab, 5, simbad
    - SgrA, 5, simbad
    - Sgr, 5, simbad
    - 05 35 17.3, -05 23 28, 5
  - For moving targets: By NAIF ID single or list
- [http://www=int.stsci.edu/~sontag/spicedocs/req/naif\\_ids.html](http://www=int.stsci.edu/~sontag/spicedocs/req/naif_ids.html)

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# Duplications: ROL



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Google

Apple Yahoo! Google Maps YouTube Wikipedia News (594) Popular

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