

# WAS for WEAVE

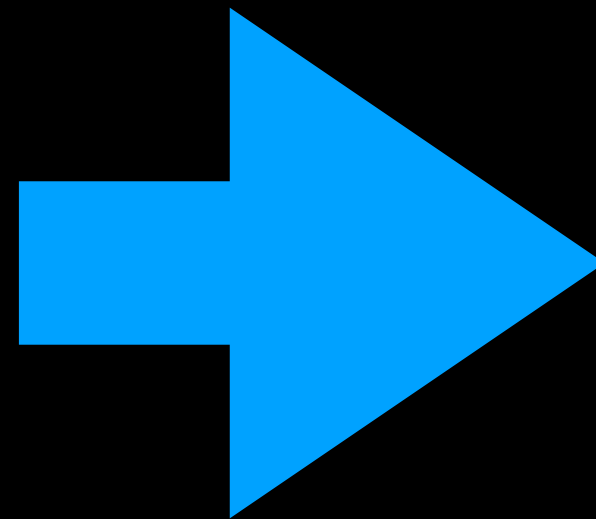
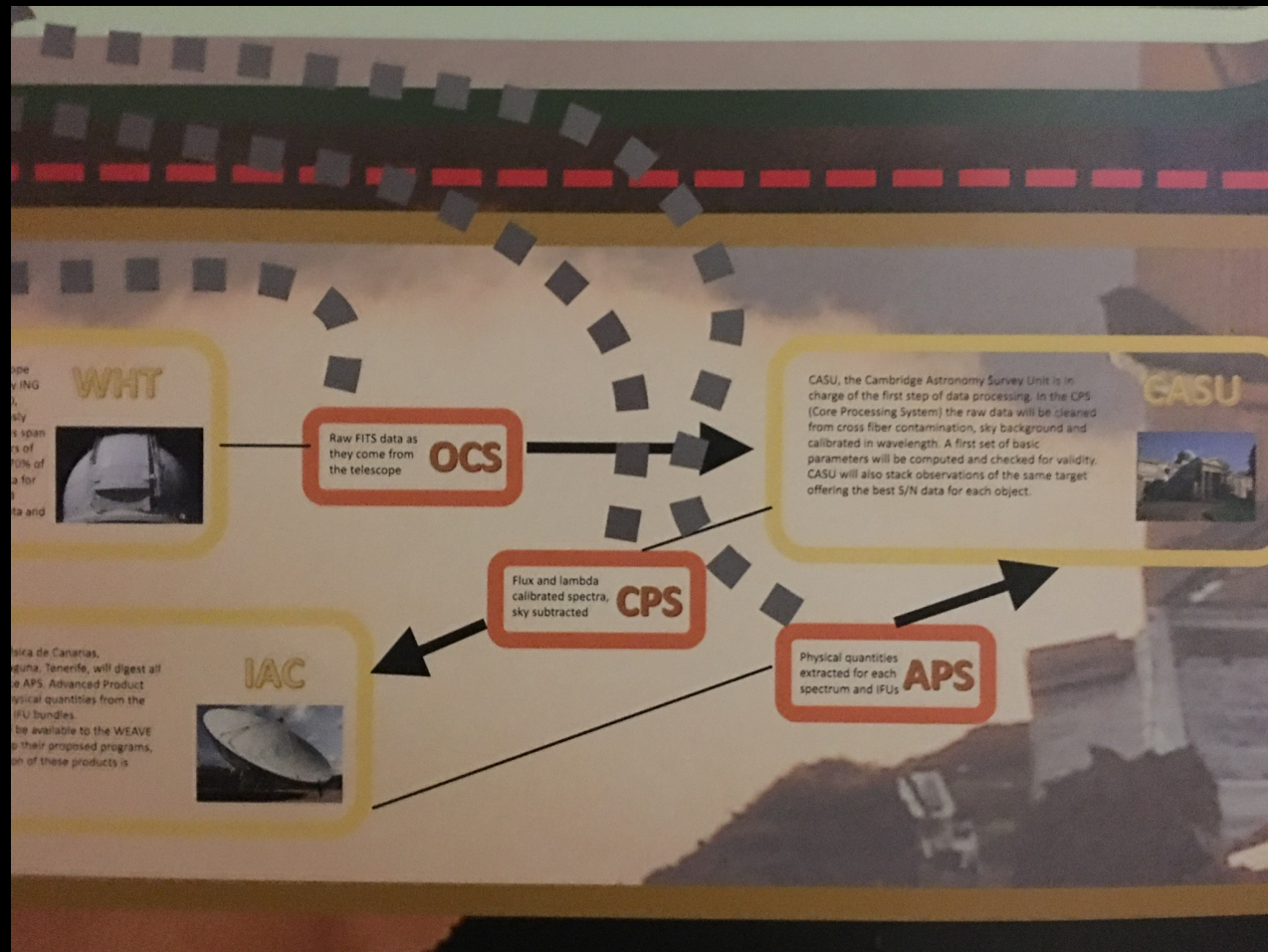
a NoStandard archive for bn of spectra



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(plus the rest of the WEAVE team)





WAS

archive +  
UI



visit POSTER

contact US  
(them)

S14.17

S14.17

## WAS for WEAVE: our NoSQL approach

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Addressers may wish to visit the WAS website to learn more about the project and the data available.

The Astronomical User Interface (AUI) will allow the final user to query the database according to any parameter chosen from the input catalogues and the WEAVE products, raw and processed.

Query will be possible using spatial coordinates, and any of the parameters extracted from the input catalogues, the FITS keyword of the observed OCS file and all the products of the CPS and APS phases. Basic graphical representation of the search results, as well as the plot of calibrated spectra, will be available to refine the search of the set of targets.

Tables (raw FITS) with selected parameters, raw and processed FITS file for queried targets will be offered for download.

The interface will have also a user level permission policy.

### Astro User Interface

Welcome to the  
Archive Sy

Accessing to the interface is made through a distributed RESTful software layer written specifically for WAS web clients. This makes the access to the search engine easier in order to present data with a specific JSON format on the WAS User Interface (AUI) or for any other web client attached to it.

### db Facade

### Repository

WAS is a web-based system that allows the final user to query the database according to any parameter chosen from the input catalogues and the WEAVE products, raw and processed.

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### NoSQL Solr dataBase

WAS database is built atop of Apache Solr index server. Solr is the popular, open source NoSQL search platform from the Apache Lucene project. Its major features include powerful near real time indexing, full-text search, hit highlighting, faceted search, fuzzy search, dynamic clustering, geospatial search and more.

Cassandra integration Solr is highly scalable providing fast, efficient distributed search and indexing and across the search and navigation features of many of the world's largest internet sites. We plan to have 6 nodes for Cassandra and 5 nodes for Solr. Each machine will have 32 cores, 64GB RAM and 2TB HDD storage.



TNG  
galileo

The TNG, Telescopio Nazionale Galileo, is the largest optical telescope in the Canary Islands and is located at the summit of a 2214m (7264ft) mountain.

As part of the TNG project, the TNG is being upgraded to a new generation of instruments. This is a change of all the scientific instruments. The upgrade will also allow the TNG to observe in the near-infrared (NIR) and mid-infrared (MIR) regions of the electromagnetic spectrum.

For more information, please visit the TNG website.

VISIT TNG !!

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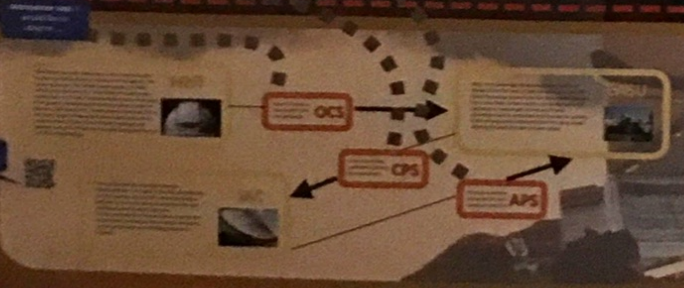
### NIFI Data Ingestion

NIFI is a platform for data integration. It is a distributed system that allows the final user to query the database according to any parameter chosen from the input catalogues and the WEAVE products, raw and processed.

Query will be possible using spatial coordinates, and any of the parameters extracted from the input catalogues, the FITS keyword of the observed OCS file and all the products of the CPS and APS phases. Basic graphical representation of the search results, as well as the plot of calibrated spectra, will be available to refine the search of the set of targets.

Tables (raw FITS) with selected parameters, raw and processed FITS file for queried targets will be offered for download.

The interface will have also a user level permission policy.



VO  
Cassandra  
Solr  
NiFi