

# The observing database at APEX

followed by

## Observing scripts at APEX

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# The observing database at APEX (1)

## A multi-purpose tool:

- ▶ created by Axel Weiss
- ▶ web-based: [www.apex-telescope.org/apexdb](http://www.apex-telescope.org/apexdb)
- ▶ **make communication easier** between PIs and observers
- ▶ **help coordination** between observer teams
- ▶ automatically keep track of the observing time spent for each project (provided the observed sources are in the source list)
- ▶ produce source catalogs for XEphem
- ▶ archival value

## The observing database at APEX (2)

### A tool for the PIs of A- and B-rated proposals:

- ▶ before: **provide** all relevant **information** to perform the observations: catalogs, observing scripts, instructions, source/setup priorities.  
**Don't assume that the observers will read your proposal!**
- ▶ during: **follow** the **progress** of the observations
- ▶ after: **find information** about possible **issues** affecting your data

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### A tool for the MPIfR observers:

- ▶ easy overview of all projects (e.g. LST coverage), as well as priorities
- ▶ quickly **find concise information** about each project
- ▶ **check** the **priority, visibility, remaining time** of a project
- ▶ **IMPORTANT!! report** on the **status** of a project (after each shift): e.g., what has been observed, which problems were encountered, what remains to do

# Observing scripts (1)

## APECS at APEX

- ▶ control system with python-based interface
- ▶ see APECS user manual (Muders 2012, APEX Report APEX-MPI-MAN-0011)  
([www.apex-telescope.org/documents/public/APEX-MPI-MAN-0011.pdf](http://www.apex-telescope.org/documents/public/APEX-MPI-MAN-0011.pdf))
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## Scripts: essential tools for a smooth and happy observing

- ▶ observing strategy defined by PIs when preparing scripts, not by observers (under stress)
- ▶ more efficient, and more robust against mistakes
- ▶ **use most recent templates!**
- ▶ option: C. Yeh's script generator for OTF mapping over many fields

## Observing scripts (2)

### General structure

- ▶ check the **README** file in the template tarball
- ▶ source catalog (should match the catalog in the database!)
- ▶ line catalog (for heterodyne observations)
- ▶ one (or several) **setup file(s)** to **configure** the instrument.  
Need for several setup files: e.g., APEX-1 and FLASH, or FLASH CO 3–2 and  $^{13}\text{CO}$  3–2, or CHAMP+ ONOFF and OTF (different dewar angles)
- ▶ one (or several) **target script(s)** to **observe** your source(s)
- ▶ **OR** define **functions** to observe your source(s), with an associated general setup file
- ▶ **instructions** in the database how to perform the observations (priorities, requested sensitivities etc.)