



# SPIR Spectrometer Hands-On Exercises

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# Exercise 1: Fitting CO Lines

Load the point-source CRL618 observation (obsid = 1342240019) from HSA and fit all the CO lines

- Select SPIRE spectrometer script
  - Select “Scripts->SPIRE Useful scripts->Spectrometer Line Fitting”.
- Edit script and run
  - Change line 65 to:  
`obs = getObservation(1342240019, useHsa=True)`
  - Hit the double green arrow button to run the entire script
- Inspect the resulting plots and line fluxes



## Exercise 2: Combining PACS/SPIRE Spectra

### Combine PACS and SPIRE spectra of CRL 618:

- Select SPIRE spectrometer script
  - Select “Scripts->SPIRE Useful scripts->Combine PACS and SPIRE spectra”
- Run the script
  - The results are in the following variables:
    - allPacsNSpire1, allPacsNSpire2
- Click on either variable with right mouse button and open it with “Spectrum Explorer”