SUMER program
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For the lecture session

o What is SUMER: EUV spectrograph
  Brief overview of optical design
  image formats available
  Raster mode

o Data reduction (general): Flat-field, geometric correction, dead time

o Intensity calibration

o Dealing with the left-overs of the geometric correction

o Temporal (in)stability of line shifts

o Absolute wavelength calibration of SUMER

o Some strategies for data analysis:
- time series analysis
- spatial raster scans
- line/continuum selection

o where SUMER is good at: some examples:
- statistical analysis of large data sets
- network/inter-network studies
- using the high spectral resolution
- unique wavelength range (short and longward of Lyman edge)

For the hands-on sessions

o fitting Gaussian profiles to SUMER spectra using
- moment calculation (cog)
- Gaussian fit allowing constraints (mpcurvefit)

o correcting a larger raster for leftovers of geometric correction

o correcting a longer time series for temporal drifts of line shifts

o one sample problem, e.g. compare variability in line shift and line intensity for a small data set