

Science Case	AVO Requirements	Archive Requirements
<p>Determine stellar population parameters (age, metallicity, extinction, mass)</p>	<p>Astrometry visualizer            Propagation of errors            Use standard SSP libraries (e.g. Bruzual &amp; Charlot; Pegase; starburst99)            Service for generating standard models with users provided parameters            Allow user to upload/publish models in the VO            Convolve model with instrument function            Generate SED from archival data            Fit convolved model to SED</p>	<p>Provide instrument function            Service for generating standard models with users provided parameters</p>
<p>Determine stellar population parameters (age, metallicity, mass) plus internal kinematics from high res spectra</p>	<p>Same as above            Access stellar spectra libraries            Convolve model with spectral resolution as well as other instrumental responses</p>	<p>Provide stellar spectra libraries            Spectral res. metadata</p>
<p>Spectral time variability of AGNs</p>	<p>Add time axis            Produce time-SED table            Visualize time SED            Model fit (see above cases)            Variability tests and modeling</p>	

<p>Cross-ID science cases:  Proper motion of stars  – galactic structure  Identification of  Chandra X-ray source  populations  Finding weird  populations  Structure in Galactic  streams  Morphology of galaxies  at different z: merging,  extinction</p>	<p>Cross ID statistics – expected  number of outliers; probability  for each ID  Source detection / extraction  should make use of PSF info.  Take into account instrumental  beams and source extension in  cross-ID  Allow filtering options during  cross-ID  Morphology asymmetry  measure</p>	<p>Provide PSF/  beam  information in  images</p>