Eclipsing Binary On-Line Atlas (EBOLA)

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In conjunction with the upcoming release of **Binary Maker 3.0**, an extensive on-line database of eclipsing binaries is being made available. The purposes of the atlas are:

1) Allow quick and easy access to information on published eclipsing binaries.
2) Amass a consistent database of light and radial velocity curve solutions to aid in solving new systems.
3) Provide invaluable querying capabilities on all parameters of the systems so that informative research can be quickly accomplished on a multitude of published results.
4) Aid observers in establishing new observing programs based upon stars needing new light and/or radial velocity curves.
5) Encourage workers to submit their published results so that others may have easy access to their work.
6) Provide a vast but easily accessible storehouse of information on eclipsing binaries to accelerate the process of understanding analysis techniques and current work in the field.

The database will eventually consist of all published eclipsing binaries with light curve solutions. The following information and data will be supplied whenever available for each binary: original light curves in all bandpasses, original radial velocity observations, light curve parameters, RA and Dec, V-magnitudes, spectral types, color indices, periods, binary type, 3D representation of the system near quadrature, plots of the original light curves and synthetic models, plots of the radial velocity observations with theoretical models, and **Binary Maker 3.0** data files (parameter, light curve, radial velocity). The pertinent references for each star are also given with hyperlinks directly to the original papers via the NASA searching options so that workers can search binaries with specific characteristics.

The website has nearly 200 systems already uploaded. The URL for the site is ***http://ebola.eastern.edu/***
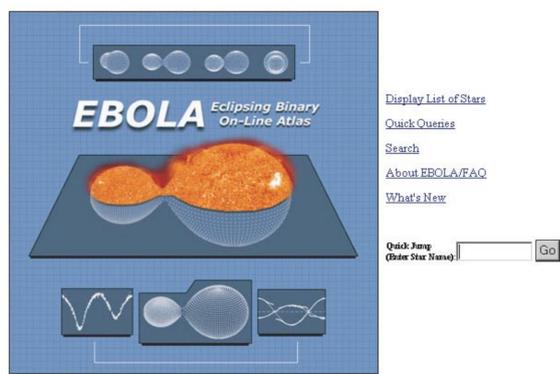
EBOLA homepage: the user can display the stars, make quick queries and detailed database searches.
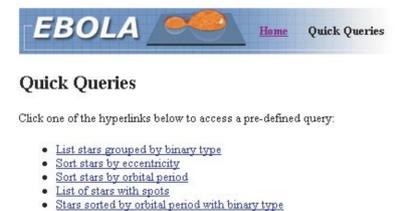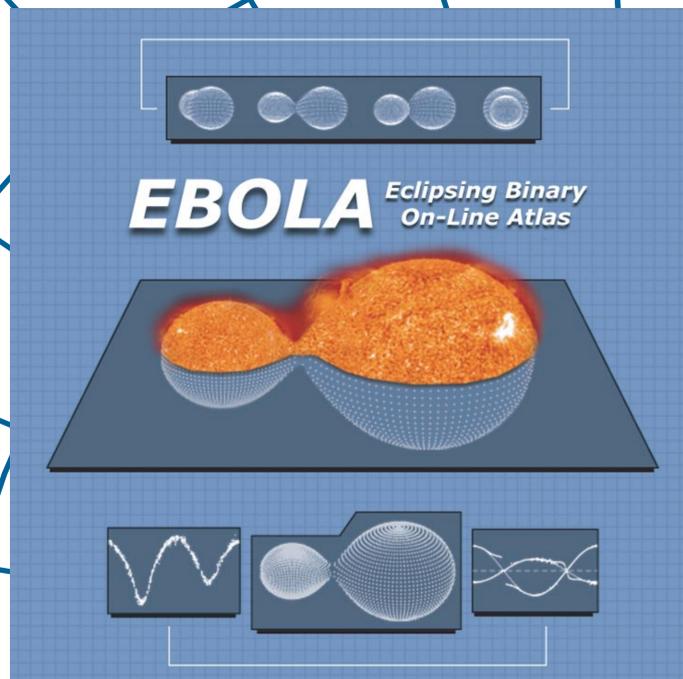
The Quick Queries page allows the user to rapidly sort stars according to important parameters.
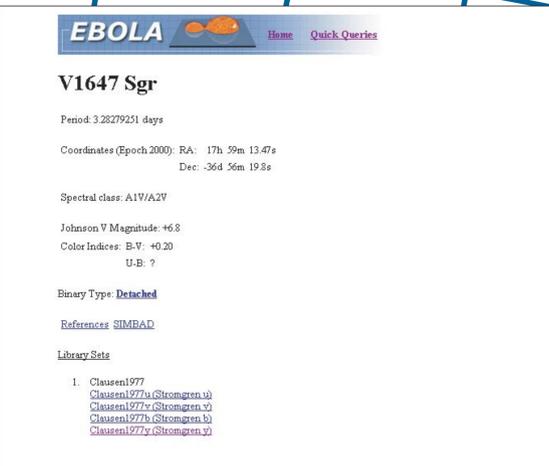
The star's homepage gives basic data about the binary and allows the user to choose models from various Library Sets.
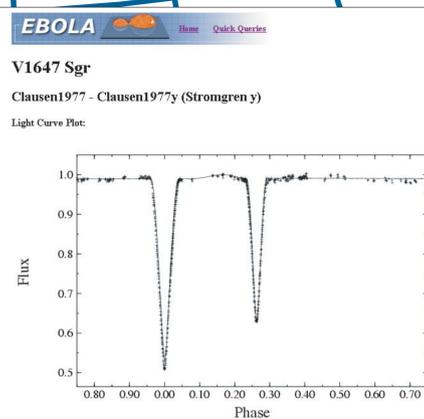
Enlarged light curve page of V1647 Sgr
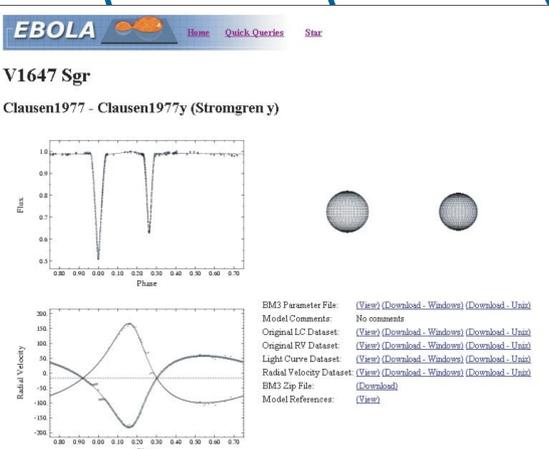
Model page for V1647 Sgr: The user can click on the graphs to see larger images of them, as well as view and/or download original data files and **Binary Maker 3.0** data files. Pertinent references to the star and model can also be accessed from this page.
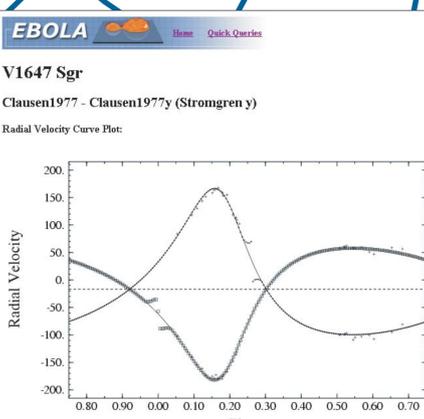
Enlarged radial velocity page for V1647 Sgr
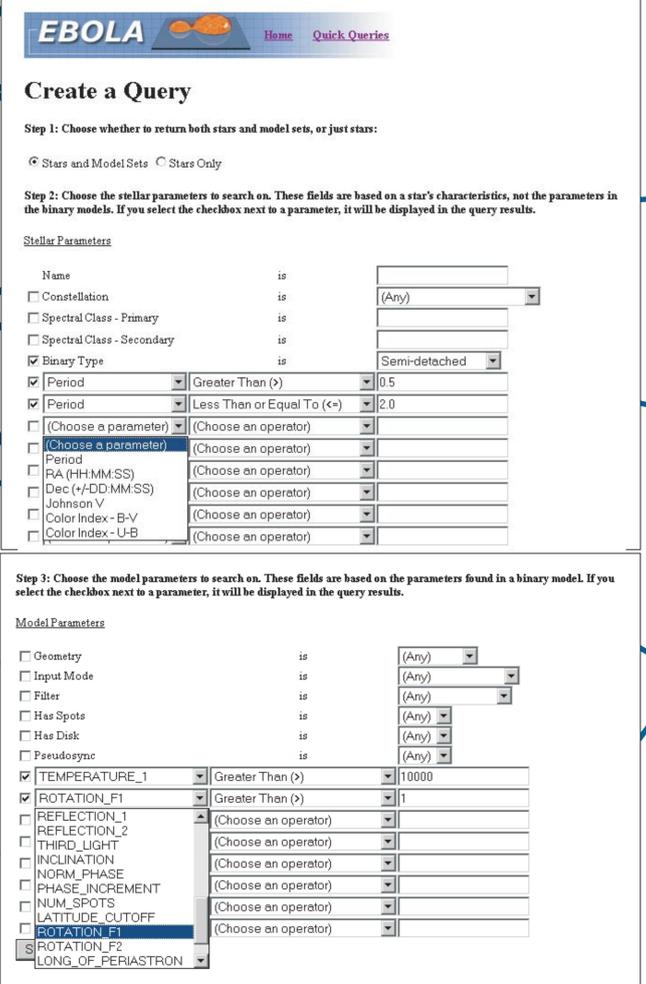
Detailed queries can be made on any of the stellar parameters and model parameters in the database, including complicated combinations of these parameters.