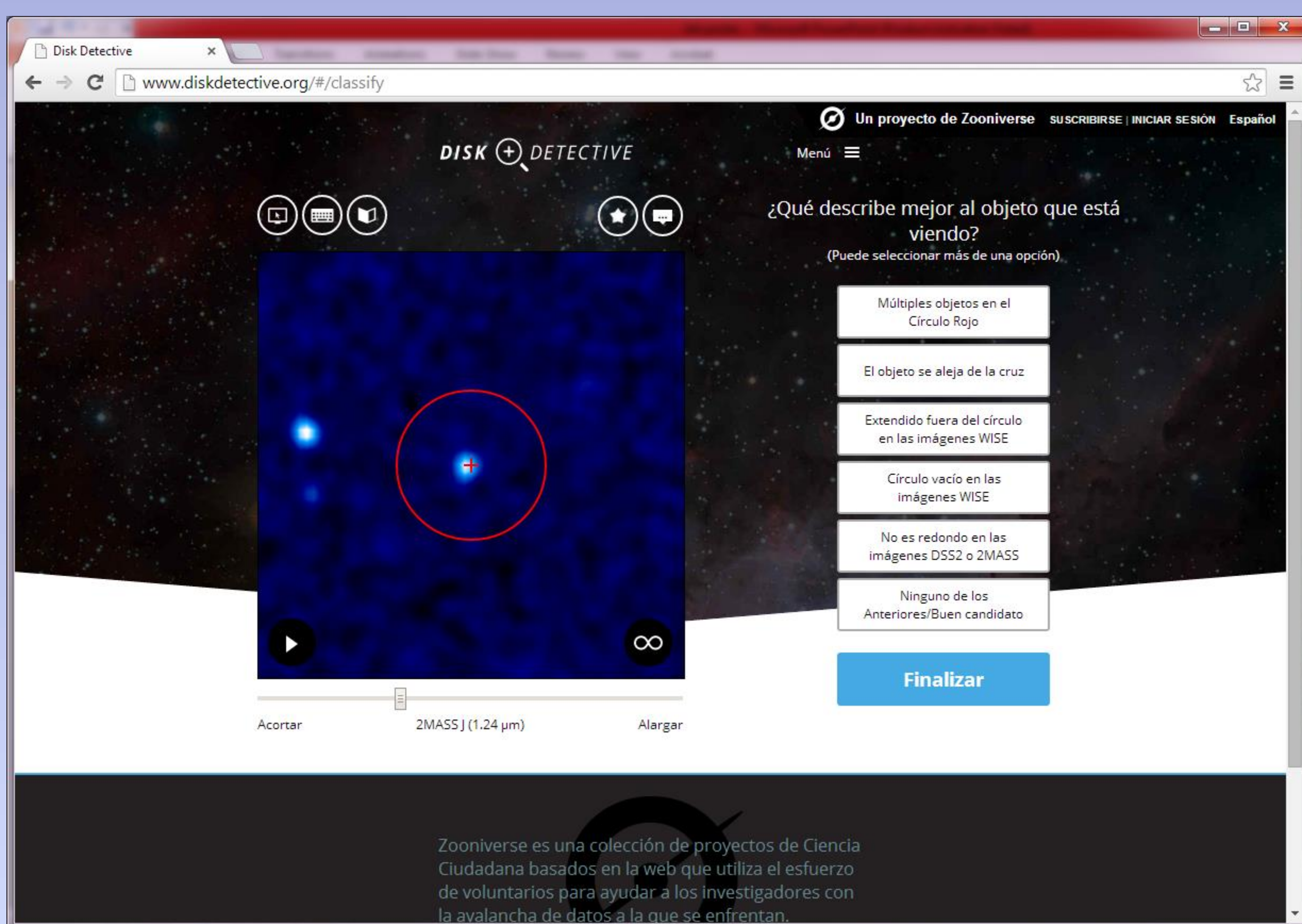


# DISK + DETECTIVE

## Finding new circumstellar disk with WISE

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Disk detective is a citizen science project started on January 28, 2014 with the main objective of searching for new proto-planetary and debris disks using data from WISE (Wide-field Infrared Survey) database.



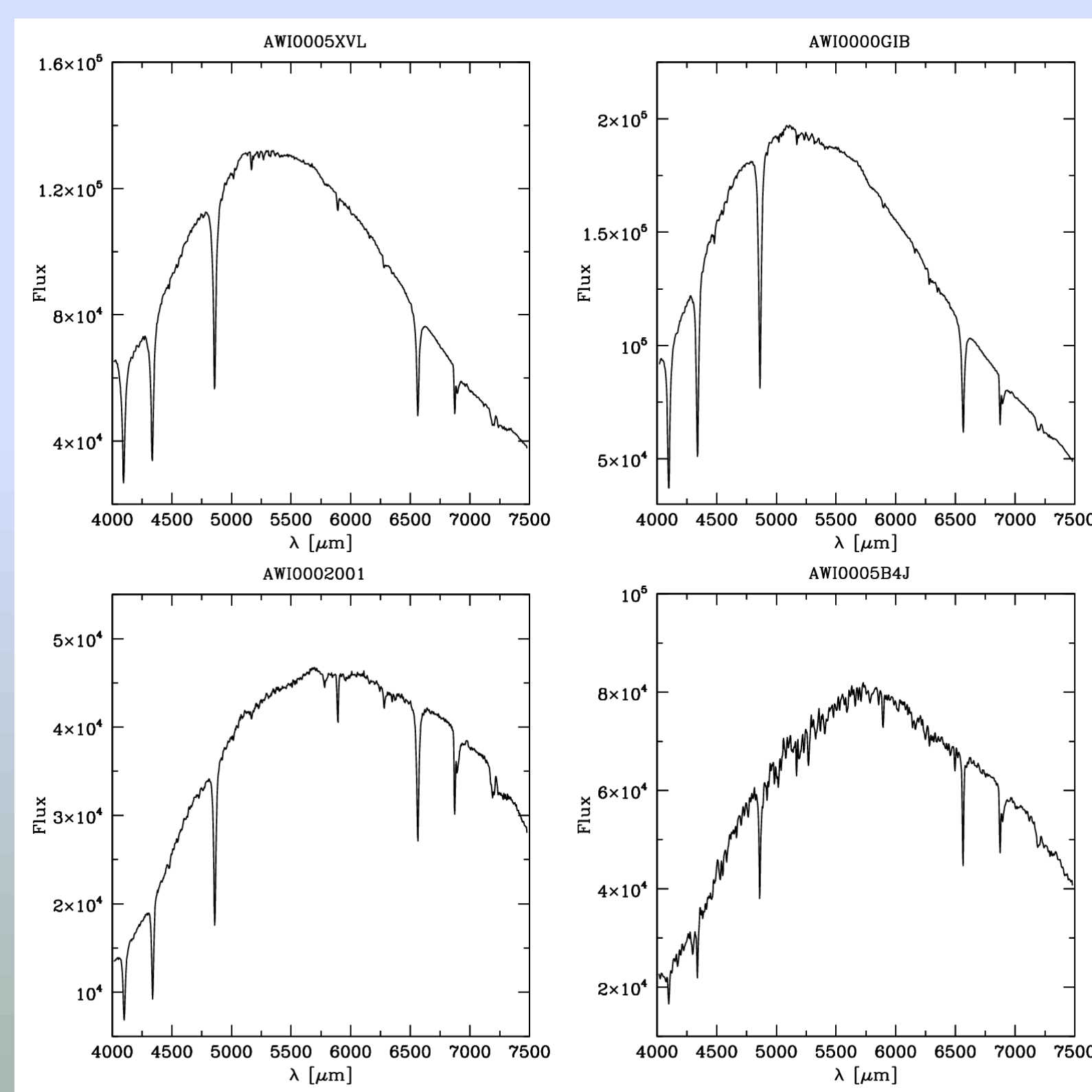
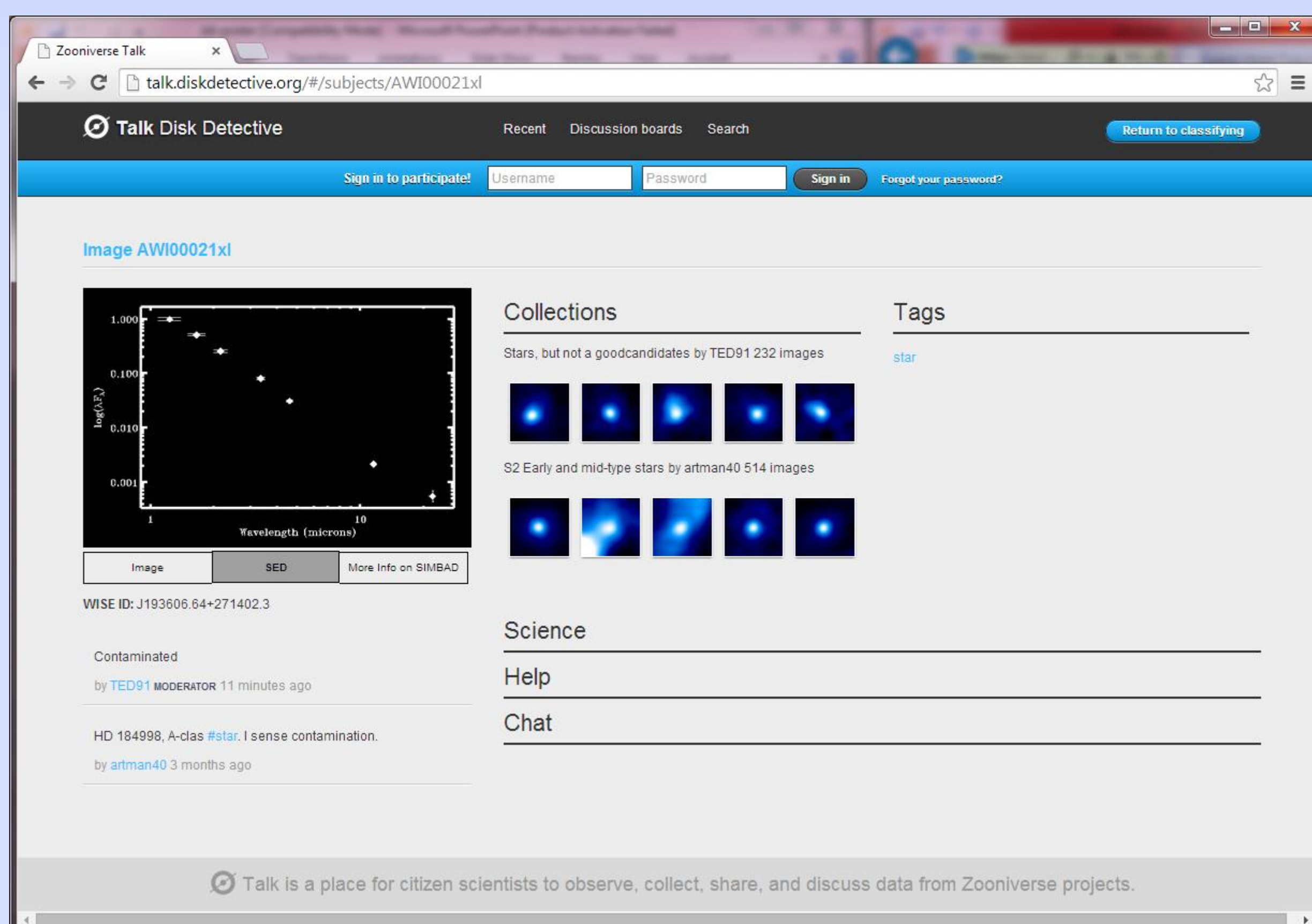
At the web site [www.diskdetective.org](http://www.diskdetective.org), volunteer citizen scientists (no previous experience needed) collaborate with the project by selecting objects candidates to be a star with a circumstellar disk and identifying sources of confusion (such as: galaxies, asteroids, artifacts).

Users inspect a sequence of 10 images presented as a movie of a 1 fps constructed with data from SLOAN or DSS, 2MASS, and WISE.

This approach has the advantages of allowing to inspect a large number of objects and have several independent classifications of each object.



The site contains tutorials to help new users to start with their classifications and discussion boards to talk with other users about the selected candidates. Also, users can inspect the SED's of the candidates and links to SIMBAD database to look for information about the candidate.



Since the launch of the website, roughly 800000 classifications have been performed by more than 118000 volunteers. However, many good candidates do not have robust spectral types or luminosity classification in the literature. This information is relevant to determine if the candidates are normal (pre-)main sequence stars.

As part of the Disk Detective project several programs are carrying on to obtain optical spectra of the candidates. Northern candidates are observed with the spectrograph FAST/Tillingast at Mt. Hopkins (Arizona, US). From the Observatorio Astronómico de Córdoba we are collaborating to obtain spectra of southern candidates using observations obtained with the REOSC/CASLEO spectrograph. The Figure to the left shows 4 spectra from our 1<sup>st</sup> run of observations in July.