

North Salinas High School Astronomy Symposium

May 23–25, 2011 2:03 - 2:58 PM
North Salinas High School
Room 101

Program:

The Demon; Julia Ashen

The star Algol is a famous variable star. What causes its changes in brightness, and what is the period of Algol's light curve?

Clusterama; Memo Farfan , Shawn Serrano

After determining the color index for stars in images of star clusters, the values are plotted on an H-R diagram in order to estimate the relative ages of the clusters.

Asteroidinary Findings; Alyssa Balducci, Sara Makanani

We will be using the salsaj software to locate an asteroid in a sequence of images. As the asteroid rotates, its brightness changes. A graph of the asteroid's brightness versus time can be used to determine its period of rotation. The presentation will include a brief demonstration on how we were able to locate the asteroid using image processing software and an animation of the motion of the asteroid.

Factors That Affect The Visibility Of Stars; Alina Doyle

How many stars are visible at night? How many more stars are visible in a dark sky location compared to viewing in the city? Does moonlight have much of an effect? This study will present numerical comparisons in addressing these questions.

Finding a Supernova; Alec Lepe, Hannah Green

By comparing two images of a galaxy taken at different dates, any new bright eruptions that occur can be identified. These "newborn stars" are often supernovas. Are NSHS students about to become famous?

Planet Hunting; Nala Johnson

Are there planets orbiting distant stars? There are clues in the stars' light curves. Periodic dips suggest orbiting bodies.

Photometry of Spiral Galaxies; Arturo Lopez

Where does most of the light emitted from a spiral galaxy come from - the nucleus or the spiral arms? This study attempts to find out.

Hubble Galaxies; Ivette Bernal

When categorizing the characteristics of galaxies captured in Hubble images, do any patterns emerge? This study is an astronomical census.

With Moons That Orbit Around, The Mass Of Saturn Can Be Found; Greg Caguimbal, Mary Caguimbal

Images of Saturn and its moons are analyzed in order to determine the orbital period and radius of selected moons. Applying Newton's laws of motion makes it possible to calculate the mass of the orbited body, in this case the planet Saturn. It is rumored that the entire presentation will be narrated in iambic pentameter.

Juan's Theorem of Galactic Measurement; Juan Lopez

Spectral analysis, Doppler shift, and Newtonian mechanics all play a role in determining the mass of a galaxy.

Determining Astronomical Distances Using Cepheids; Monse Hernandez, Melinda House

After analyzing a sequence of images of a Cepheid variable star in order to determine its period, the star's absolute brightness and distance will be determined.

Colors of the Universe; Abraham Roque, Bret Porter

How are the beautiful color images of nebulae and galaxies created? The processes and pitfalls of RGB image creation will be revealed.