

Proposal Number 06-01E

Proposal Title Ionized Hydrogen in Eta Cygni

I propose find spectra of ionized hydrogen. I look around star Eta Cygni cuz its big Eta cygni have possibilities for black holes nearby. There is already a good chance there black hole in the constellation of Cygnus, Chance that this constellation may hold more black hole. Need to find evidence of high velocities near Eta Cygni. This would give, evidence of possible accretion disk around a black hole also want to see if there are x-rays comeing from this same area. I want to use Large Cassegrain Spectrograph on the Harlan J. Smith Telescope. I need one week May.

Proposal Number 04-12B

Proposal Title Methane in the Atmosphere of Saturn

For my project, I am looking to see how strongly methane is absorbed in the planet Saturn. My target wavelength to look at is near 5 microns. Recent research shows that methane has recently been discovered at this wavelength on Jupiter, and this has led to research into the possibility of water vapor in Jupiter's atmosphere. Finding methane absorbed at 5 microns on Saturn could be the first step to finding water vapor on Saturn. In order to obtain these spectra, I would like to use the Cassegrain Spectrograph on the Otto Struve telescope. Since Jupiter is best seen in the spring sky, I would like to do my observing for week in March or April.

Proposal Number 05-03H
Proposal Title Galilean Moons

Galileo's work in finding the moons of Jupiter was a key astronomical discovery in the 17th century. I would like to re-create his experiment using a 21st century telescope. I will examine the periods of the moons Io, Europa, Ganymede, and Callisto over a three month period (March –May) using Argos on the Otto Struve Telescope.

Proposal Number 12-47D
Proposal Title Young Galaxies

In order to study how galaxies develop, one must look at a range of galaxies from the very young to the very old. My previous research indicates a possible connection between the age of a galaxy at its velocity as measured by its Doppler shift. Using the Hobby-Eberly Telescope and the Marcario Low Resolution Spectrograph, I would like to continue working on the correlation between a galaxy's velocity and its age. Making this connection will make it easier for other astronomers to find young galaxies. Four nights in the spring trimester are necessary to complete this project.

Proposal Number 11-31A
Proposal Title Asteroid Impact on Earth

Sixty-five million years ago, paleontologists hypothesize that an asteroid hit the Earth causing the extinction of the dinosaurs. Today, asteroids impacting the Earth are a very real possibility and are a serious threat to the planet. Using the 0.8-m telescope with the Prime Focus Corrector, my team is going to locate and track asteroids that are close to the Earth. If my team finds asteroids that are within 250,000 miles of the Earth, we will notify a second group of astronomers who will analyze the asteroids in more detail. My team requests 3 nights in March, 3 nights in April, and 3 nights in May.

Proposal Number 10-02G
Proposal Title Planets around Other Stars

There is increasing proof that planets do exist around other stars. Finding other planets is the first step to possibly finding other life in the universe. One way to look for planets around other stars is to examine their spectra very carefully. If there are consistent, slight changes in the star's spectra, it might be an indication of a planet going around the star. Using the Smith Telescope with the Coudé spectrometer, I will continue to look for these changes in the spectra to try and locate new planets around other stars. To complete this phase of the project, I require 5 nights in March.