



# Sloan Career Cornerstone Center

## Profiles of Physicists



**Madhulika Guhathakurta**

**Solar Physicist  
NASA / Goddard Space Flight Center**

### Education:

B.S. -- Physics; Delhi University, Delhi, India

M.S. -- Physics and Astrophysics; Delhi University, Delhi, India

PhD -- Physics; University of Denver

### Job Description:

Solar Physicist, studying the solar corona using data from satellites such as Spartan.

### Comments:

"I am a physicist and maybe more of an astrophysicist, and I study the sun. From our instrument we can get information about the three dimensional structure of the corona."

### Video Transcript 1:

"I'm not really an astronomer. I never took a course in astronomy. I am a physicist and maybe more of an astrophysicist, and I study the sun. From our instrument we can get information about the three dimensional structure of the corona. The electron density distribution in the corona. Some field for how the temperature falls off in the corona. Because whatever is in that solar corona, eventually comes down through the atmosphere into our environment ... environment and beyond. And so we would like to understand the sun. Even though I'm technically on the Spartan project, my job is essentially to understand the large scale structure of the solar corona. And Spartan provides a glimpse towards the large scale corona through its images and data taking."

### Video Transcript 2:

"I work with mostly physicists, other physicists, solar astronomers, astrophysicists. I collaborate with people from universities quite a bit. Working here is really nice. Our time is so flexible. It's not like I have to punch a clock between 8 to 5. I can come here anytime. I can leave anytime. I can work anytime. I am free to work at night. Free to work on weekends. Anytime I want to."

### Video Transcript 3:

"Writing proposals are probably the worst thing I like about my job. Because you know that there is very little money right now with NASA to go around to support all the proposals that they get. Typically most of the proposals, at least 60%, 70% of the proposals are very good proposals. But they can only fund maybe 30% of the proposals. So you know you're spending a lot of time into something where it's like a winning a lottery essentially. That's where the frustration comes from."