



Science  
Beta

# For Researchers

## Dr. Lika Guhathakurta – Lead Program Scientist for LWS

As a NASA astrophysicist, Dr. Madhulika Guhathakurta (also known as Lika) has had the opportunity to work as a scientist, mission designer, instrument builder, directing and managing science programs and teacher and spokesperson for NASA's mission and vision in the Heliophysics Division. Occasionally, she performs all of these roles in a single day.

Before joining NASA Headquarters in December of 1998, her career had focused on studying the importance of the scientific exploration of space in particular understanding the Sun as a star and its influence on the planet Earth, with research focus on understanding the magneto hydrodynamics of the Sun's outermost layer, the solar corona. She has been a Co-Investigator on five Spartan 201 missions on aboard space shuttles (STS-56, STS-64, STS-69, STS-87, STS-95) to study the solar corona in white-light and UV radiation and has authored over 70 publications.

Dr. Guhathakurta is the Lead Program Scientist for NASA's initiative called "Living With a Star" (LWS) which focuses on understanding and ultimately predicting solar variability and its diverse effects on Earth, human technology and astronauts in space. The systems science behind this new kind of weather outside of Earth's terrestrial atmosphere is known as "Space Weather". She is also the Program Scientist for the recently launched

twin satellites "Solar TERrestrial RELations Observatory" (STEREO). STEREO is a two-year mission which will employ two nearly identical space-based observatories - one ahead of Earth in its orbit, the other trailing behind - to provide the first-ever stereoscopic measurements to study the Sun and the nature of its coronal mass ejections, or CMEs and their impact on space-weather. In addition to leading science missions for the LWS program, Dr Guhathakurta also manages a theory, modeling and data analysis program to integrate scientific output, data, and models to generate a comprehensive, systems understanding of Sun-Heliosphere-Planets coupling. She is the discipline scientist of this new discipline titled "Heliophysics".

Dr. Guhathakurta is leading an effort in an international initiative known as the "International Living With a Star" (ILWS) consisting of all the space agencies of the world to contribute towards the scientific goal for Space Weather understanding. She is the chair of ILWS Steering Committee. She is also a co-chair on the inter-agency group "Committee on Space Weather" (CSW) of the National Space Weather Program, (<http://www.spaceweathercenter.org/SWOP/NSWP/1.html>).

A native of India, Dr. Guhathakurta received her Masters in Astrophysics from University of Delhi and Ph.D. in Physics from University of Denver and University of Colorado at Boulder.

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