Project Details

ROSES ID: NNH09ZDA001N
Selection Year: 2010
Program Element: Cross-Discipline Infrastructure Building Programs

Project Title:
IAU Symposium 273 on the Physics of the Sun and Star Spots

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Summary:
A major goal of the "Living With A Star Targeted Research and Technology" (LWS) program is understanding and predicting the variations in solar radiative and particulate output over wide range of time scales. Although it is still not possible to explain all phenomena starting from first physical principles, it is very useful to find common threads connecting different phenomena. An example of relevance to the LWS initiatives are the class of models which use a classification of sunspot characteristics for flare prediction.

Despite more than three decades of vigorous observational and theoretical research on solar magnetic fields, the understanding of the mechanisms governing the origin and decay of sunspots is far from complete. Indeed, the delay of onset of the current solar activity cycle has come as a complete surprise to solar physicists. While sunspots are thoroughly studied objects, spots on other stars remain poorly understood. Combining the solar and stellar fields of research is mutually beneficial since solar investigations can gain insight from the long term evolution of stellar magnetism, and stellar research can gain insight into the roots of the spot phenomenon.

The astronomy group at California State University Northridge (CSUN) has been granted the opportunity to organize and host the International Astronomical (IAU) Symposium 273 on the Physics of the Sun and Star Spots, which will take place on August 23-26, 2010. The meeting will attempt to understand the long term behavior of the Sun by including knowledge about similar stars. At the same time, recent developments in the field of solar magnetism, which are vital to space weather prediction research, will be presented. Broadly, the conference aims to stimulate the cross fertilization of ideas both within established researchers and with students starting their careers. The contributions to the conference will be published in the form of proceedings.

Invited speakers will be selected by the scientific organizing committee from the pool of scientists working in the field of stellar and solar magnetism and activity around the world. The speaker roster will include both established and young researchers. Contributed talks will be given by graduate students and post-doctoral fellows. In all cases scientists from under represented groups will be actively recruited. This proposal requests travel funds to support students from USA.

Publication References:

no references