

Workshop

Imaging of Stellar Surfaces

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Rachael Roettenbacher
Stockholm University, Stockholm, Sweden

Title:

Imaging Active Giants and Comparisons to Doppler Imaging

Abstract:

In the outer layers of cool, giant stars, stellar magnetism stifles convection creating localized starspots, analogous to sunspots. Because they frequently cover much larger regions of the stellar surface than sunspots, starspots of giant stars have been imaged using a variety of techniques to understand, for example, stellar magnetism, differential rotation, and spot evolution. Active giants have been imaged using photometric, spectroscopic, and, only recently, interferometric observations. Interferometry has provided a way to unambiguously see stellar surfaces without the degeneracies experienced by other methods. The only facility presently capable of obtaining the sub-milliarcsecond resolution necessary to not only resolve some giant stars, but also features on their surfaces is the Center for High-Angular Resolution Astronomy (CHARA) Array. Here, an overview will be given of the results of imaging active giants and details on the recent comparisons of simultaneous interferometric and Doppler images.