Resolving stellar surfaces with the next generation facilities

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Abstract

The Sun is the only star whose surface we can resolve in great detail. Solar surface shows myriad of surface features, both convective and magnetic in origin. For a long time it was not possible to obtain direct, spatially resolved, images of the stellar surface, except in some very rare cases of near-by giant and supergiant stars, During the last decade a breakthrough using long baseline infrared interferometers has occurred. These facilities now routinely produce aperture synthesis images of stellar with milli-arcsecond angular resolution enabling also studying stellar surface features. In this talk I will discuss the outstanding science questions and how they can be addressed with the next generation facilities.

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