

STARSPOT EVOLUTION ON ACTIVE LATE-TYPE STARS IN THE KEPLER FIELD

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Starspots on late-type stars are a direct manifestation of the photospheric emergence of strong dynamo-generated magnetic fields. We propose to use Kepler to study the starspot variability on 135 active stars that we have identified from GALEX FUV+NUV imaging, and investigate how activity phenomena such as the growth and decay of starspots, differential rotation, activity cycles, and flaring operate on single and binary stars with a wide range of mass (and hence convection zone depth). This will hopefully allow us to constrain models of magnetic field generation and transport in the fast rotation regime which any successful dynamo theory must be able to address.