
Observations of coronae and prominences in active cool stars

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Abstract

X-ray and EUV observations of young cool stars have shown that their coronae are extremely pressured environments with temperatures and densities that are up to two orders of magnitudes larger than those observed in the solar corona. At the same time rapidly transiting absorption features in optical and UV spectra reveal the presence of large cool, prominence-type complexes that can extend several stellar radii. I will give an overview of our current understanding of coronal structures in cool stars from multi-wavelength observations, detailing their properties and apparent dependence on spectral type. I will also outline future prospects in this field, particularly from observations of stellar coronal environments at radio and sub-mm wavelengths.

Keywords: stellar activity, stars: coronae, stars: prominences, multi, wavelength observations

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