

Sunspot light-bridges - a bridge between the photosphere and the corona?

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Abstract. Recent observations of sunspot light-bridges have shed new light on the fact that they are often associated with significant chromospheric activity. In particular chromospheric jets (Shimizu et al., 2009) persisting over a period of days have been identified, sometimes associated with large downflows at the photospheric level (Louis et al., 2009). One possible explanation for this activity is reconnection low in the atmosphere. Light-bridges have also been associated with a constant brightness enhancement in the 1600Å passband of TRACE, and the heating of 1 MK loops. Using data from EIS, SOT and EUVI we investigate the response of the transition region and lower corona to the presence of a light-bridge and specific periods of chromospheric activity.