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## Sustained Heating of the Chromosphere and Transition Region Over a Sunspot Light Bridge

The solar chromosphere and transition region (TR) play an important role in coupling the dense, 6000K photosphere to the tenuous, million degree corona. As the plasma beta changes dramatically over these layers, ascertaining the processes that maintain their thermal structure remains a fundamental problem in solar physics. By combining observations from the 50-cm Multi-Application Solar Telescope (MAST) at USO-PRL, the Interface Region Imaging Spectrograph (IRIS), Hinode, the Atmospheric Imaging Assembly (AIA), and the Helioseismic and Magnetic Imager (HMI) we analyze the sustained heating of the chromosphere and TR over several days in a regular sunspot light bridge (LB). In this talk I shall describe the various diagnostics used to infer the thermal and magnetic structure of the LB, as well as the possible processes that could supply the necessary energy to maintain the temperature spanning a range of 8000 K to 2.5 MK over a period of days.

**Primary author:** LOUIS, Rohan Eugene (Udaipur Solar Observatory, Physical Research Laboratory, Udaipur, India)

**Co-authors:** Prof. MATHEW, Shibu (USO-PRL); Dr BAYANNA, A. Raja (USO-PRL); Dr BECK, Christian (NSO USA); Dr CHOUDHARY, Debi P. (CSUN USA)

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