Space Based Observations of Coronal Cavities in Conjunction with the Total Solar Eclipse of July 2010

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In conjunction with the total solar eclipse on July 11, 2010 we coordinated a campaign between ground and space based observations. Our specific goal was to augment the ground based measurement of coronal prominence cavity temperatures made using iron lines in the IR (Habbal et al. 2010 ApJ 719 1362) with measurements performed by space based instruments. Included in the campaign were Hinode/EIS, XRT and SOT, PROBA2/SWAP, SDO/AIA, SOHO/CDS and STEREO/SECCHI/ EUVI, in addition to the ground based IR measurements. We plan to use a combination of line ratio and forward modeling techniques to investigate the density and temperature structure of the cavities at that time.