

Lyman Alpha Spicule Observatory (LASO)

The Lyman Alpha Spicule Observatory (LASO) sounding rocket will observe smallscale eruptive events called "Rapid Blue-shifted Events" (RBEs) [Roupe van der Voort et al., 2009], the on-disk equivalent of Type-II spicules, and extend observations that explore their role in the solar coronal heating problem [De Pontieu et al., 2011]. LASO utilizes a new and novel optical design to simultaneously observe two spatial dimensions at 4.2" spatial resolution (2.1" pixels) over a 2'x2' field of view with high spectral resolution of 66mÅ (33mÅ pixels) across a broad 20Å spectral window. This spectral window contains three strong chromospheric and transition region emissions and is centered on the strong Hydrogen Lyman- α emission at 1216Å. This instrument makes it possible to obtain new data crucial to the physical understanding of these phenomena and their role in the overall energy and momentum balance from the upper chromosphere to lower corona. LASO was submitted March 2011 in response to the ROSES SHP-LCAS call.