

A Study of Eruptions Detected by the LMSAL Eruption Patrol

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Observations of the solar atmosphere reveal a wide range of real and apparent motions, from small scale jets and spicules to global-scale coronal mass ejections. Identifying and characterizing these motions are essential to advance our understanding the drivers of space weather. Both automated and visual identifications are used in identifying CMEs. To date, the precursors to these — eruptions near the solar surface — have been identified primarily by visual inspection. Here we report on an analysis of the eruptions detected by the Eruption Patrol, a data mining module designed to automatically identify eruptions from data collected by Solar Dynamics Observatory's Atmospheric Imaging Assembly (SDO/AIA). We describe the module and use it both to explore relations with other solar events recorded in the Heliophysics Event Knowledgebase and to identify and access data collected by the Interface Region Imaging Spectrograph (IRIS) for further analysis.