

Abstract Submitted
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Coronal Loop detection and seismology ALEXANDER PEVTSOV, R.T.J. MCATEER, JASON JACKIEWICZ, BRANDON CALABRO, BERNIE MCNAMARA, New Mexico State University — Using a TRACE image with a bipolar active region and over one hundred distinguishable loops, we examine several current methods for automated coronal loop detection. Using the same TRACE image, several new approaches are also taken in an attempt to increase accuracy and completeness rates for the automated detection process. These new methods are applied to AIA data from the Solar Dynamic Observatory with the expectation to achieve a higher degree of completeness while maintaining a high level of accuracy in the detection process. To increase completeness, an automated attempt for the reconnection between orphaned loop segments will also be tested. In the future, an approach to reconstruction of three-dimensional images from several two-dimensional images can be devised by using the detected coronal loops and a known 3D offset of each image. However this process heavily depends on the ability to accurately and completely detect the coronal loops.

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