Coronal Seismology: Application to a Bright Point in a Coronal Hole

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Background & Motivation

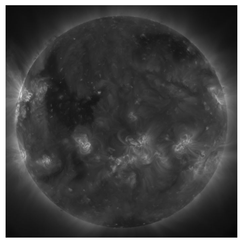
Observations of waves and oscillations in coronal structures, such as loops and prominances, can reveal properties of the corona that are otherwise difficult to measure directly. Such properites include magnetic field strength and density. Characterizing the corona is important for understanding the dynamics of events that produce these oscillations, such as flares and coronal mass ejections (CMEs).

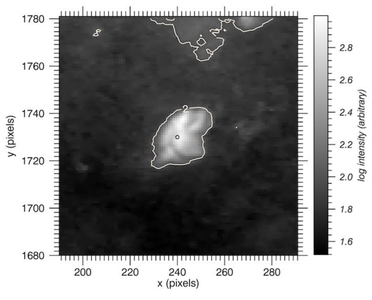
Coronal Seismology

1. Observe disturbances
2. Measure Physical Parameters
3. Identify wave properties
4. Extract physical parameters

Data

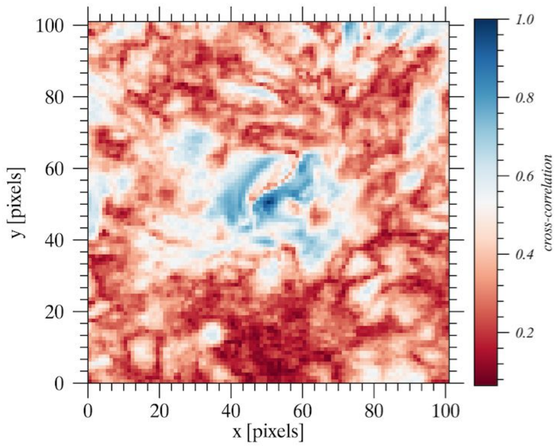
Images from the Atmospheric Imaging Assembly (AIA) on board the *Solar Dynamic Observatory (SDO)* were used.

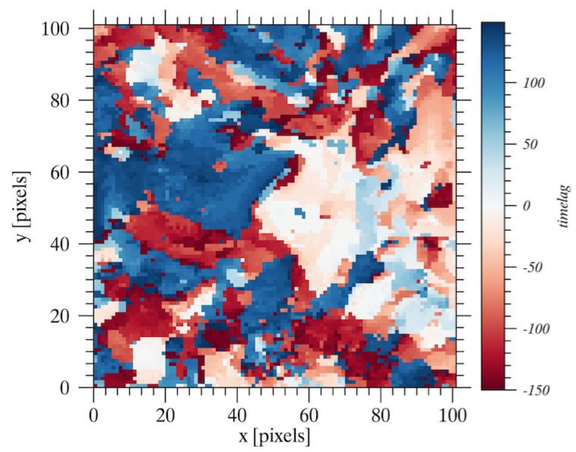




Cross-correlation results

Stuff.





Lightcurve results

Stuff

Conclusions

Stuff

Future Work

Data from the Helioseismic and Magnetic Imager (HMI) during the same time as the data analyzed here could reveal the photospheric magnetic counterpart to the bright point. A fourier transform on the lightcurves in figure (?) is required to extract potential periodic information.

Acknowledgements

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