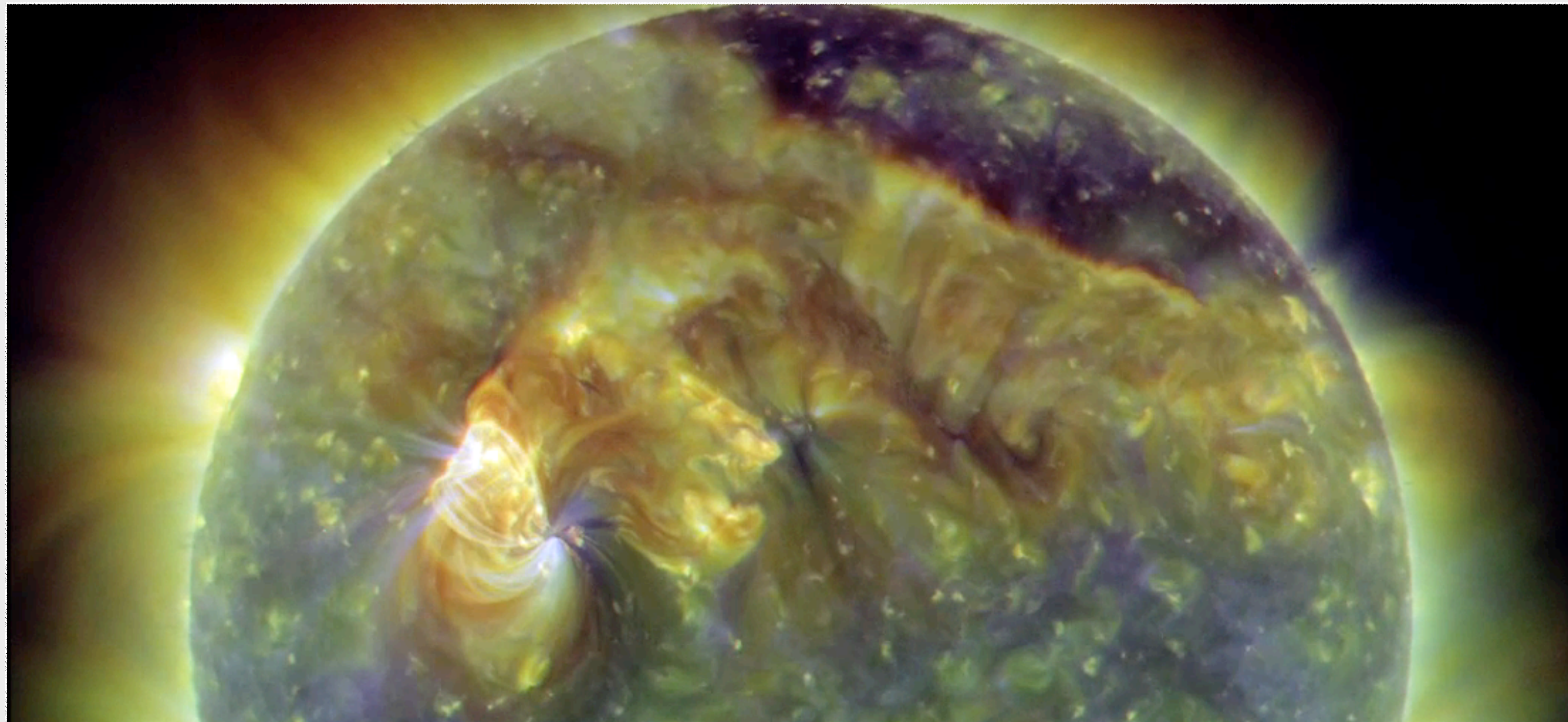


# The Explosive Sun



## NOT A BORING STAR

It may not look like it, but this is our Sun. This image, taken by the NASA Solar Dynamics Observatory, shows the complex nature of our parent star in incredible detail. Although relatively stable, as compared to other stars, the Sun sometimes produces vast explosions and storms which can move through space towards the Earth.



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Bryne, Maloney, McAteer, Refojo, Gallagher,  
2010, *Nature Comms*, 1, 74

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## TRACKING SOLAR STORMS

Research at NMSU is focusing on understanding the nature of the magnetic field of the Sun. When this field gets wound up, stored energy can be suddenly released as a solar storm.

We use two spacecraft to look at the Sun from different directions. With multiple views, we can use advanced image processing techniques to track these storms in 3D and predict if they will hit Earth.

The effects at Earth can be beautiful (like the aurora), nasty (destroying electricity generators and communication satellites), or deadly (posing a severe health risk to astronauts).

