

The Sun

ASTR 1220, Summer 2010

14 July 2010

Outline

Bennett Ch 14

Energy of the Sun

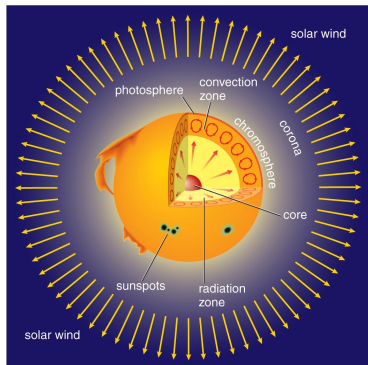
Structure of the Sun

Fusion

Goals

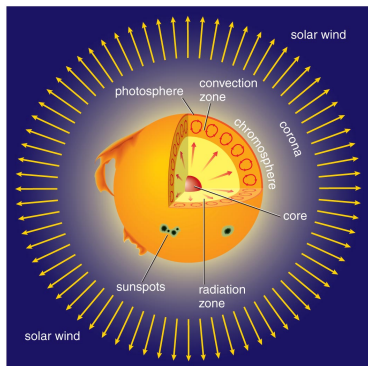
- ▶ Learn the structure of the Sun, what happens in each region
- ▶ Basic understanding of how the Sun is powered

General Structure

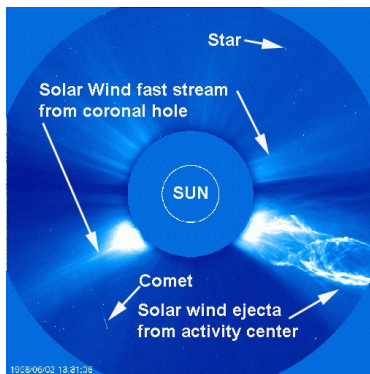


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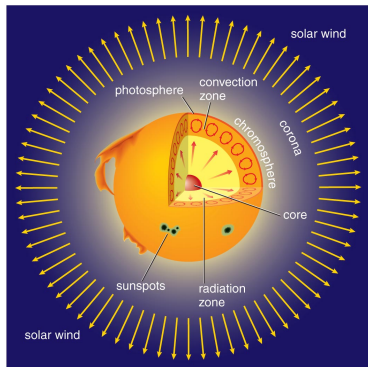
Atmosphere



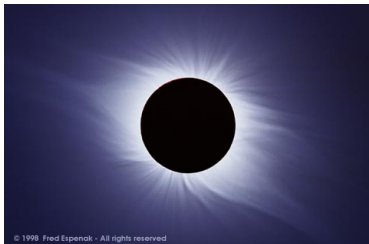
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Corona



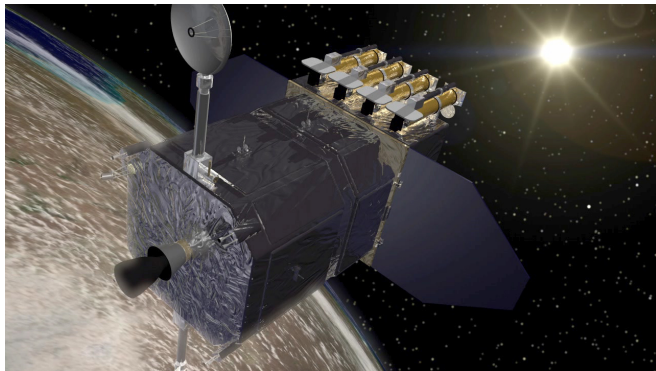
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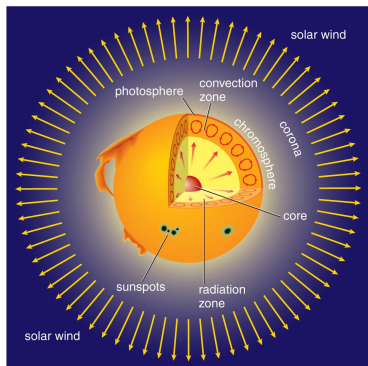
Astronomy Picture of the day - Solar Eclipse

Aside: Solar Dynamics Observatory

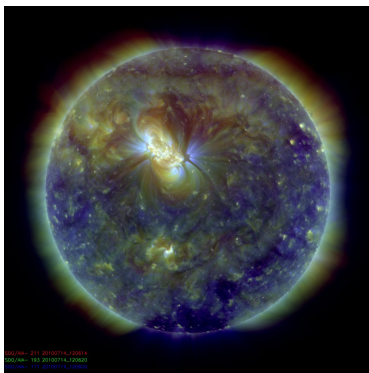


Dedicated to studying the Sun. Launched Feb 2010. Sends down **1.5 TB** of data every day. Crucial to understanding “space weather”.

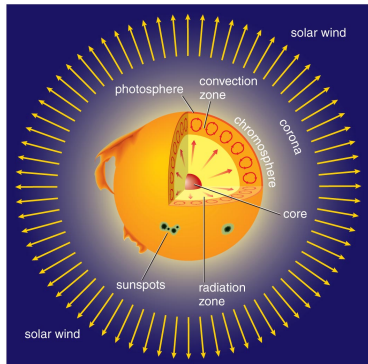
Chromosphere



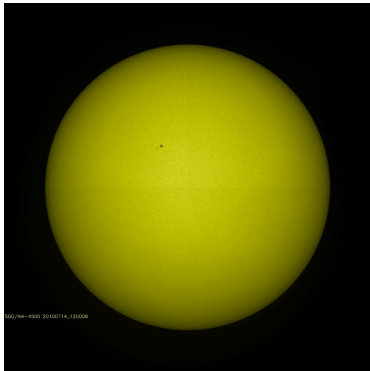
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Photosphere



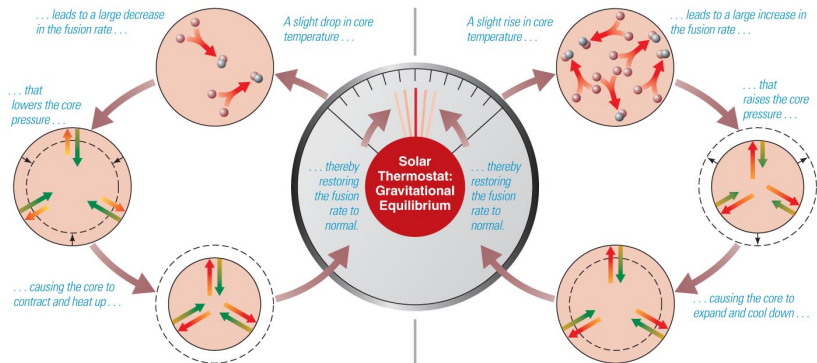
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Convection in the sun

Motion of the photosphere (movie, 38 MB)

Solar Thermostat



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