

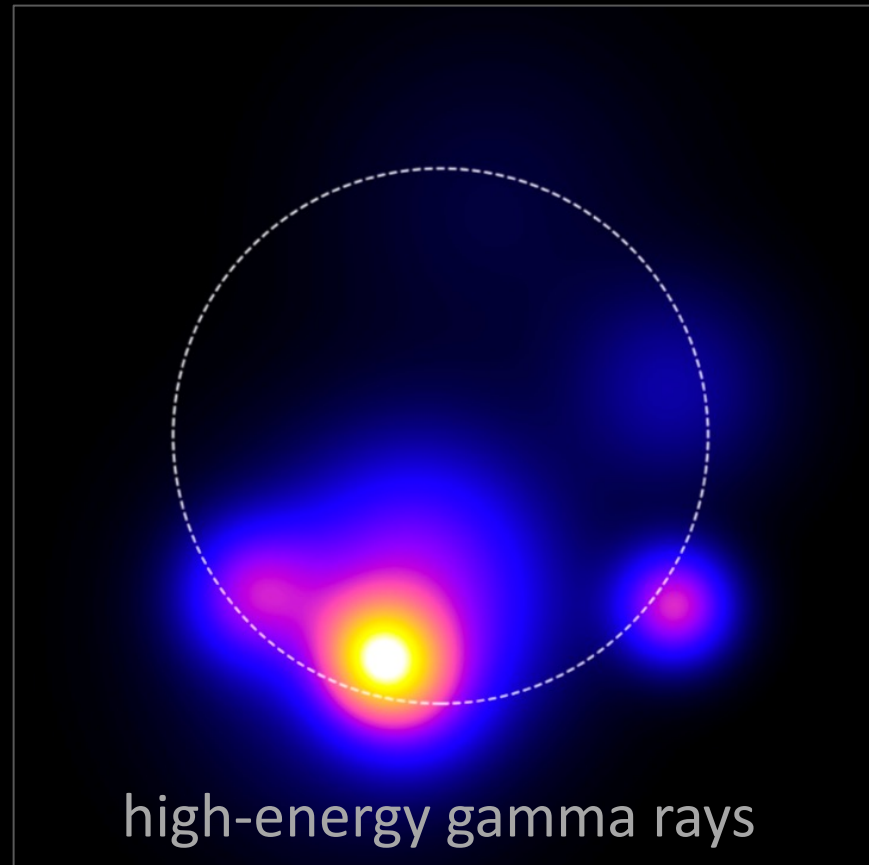
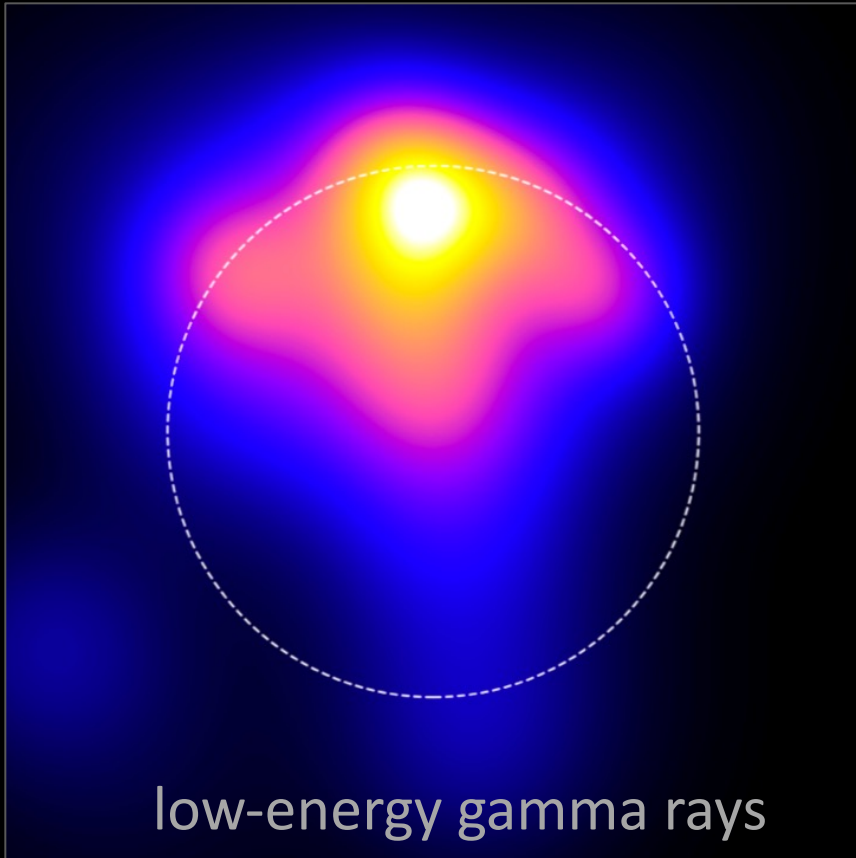


Asymmetric Gamma-Ray Emission from the Quiet Sun

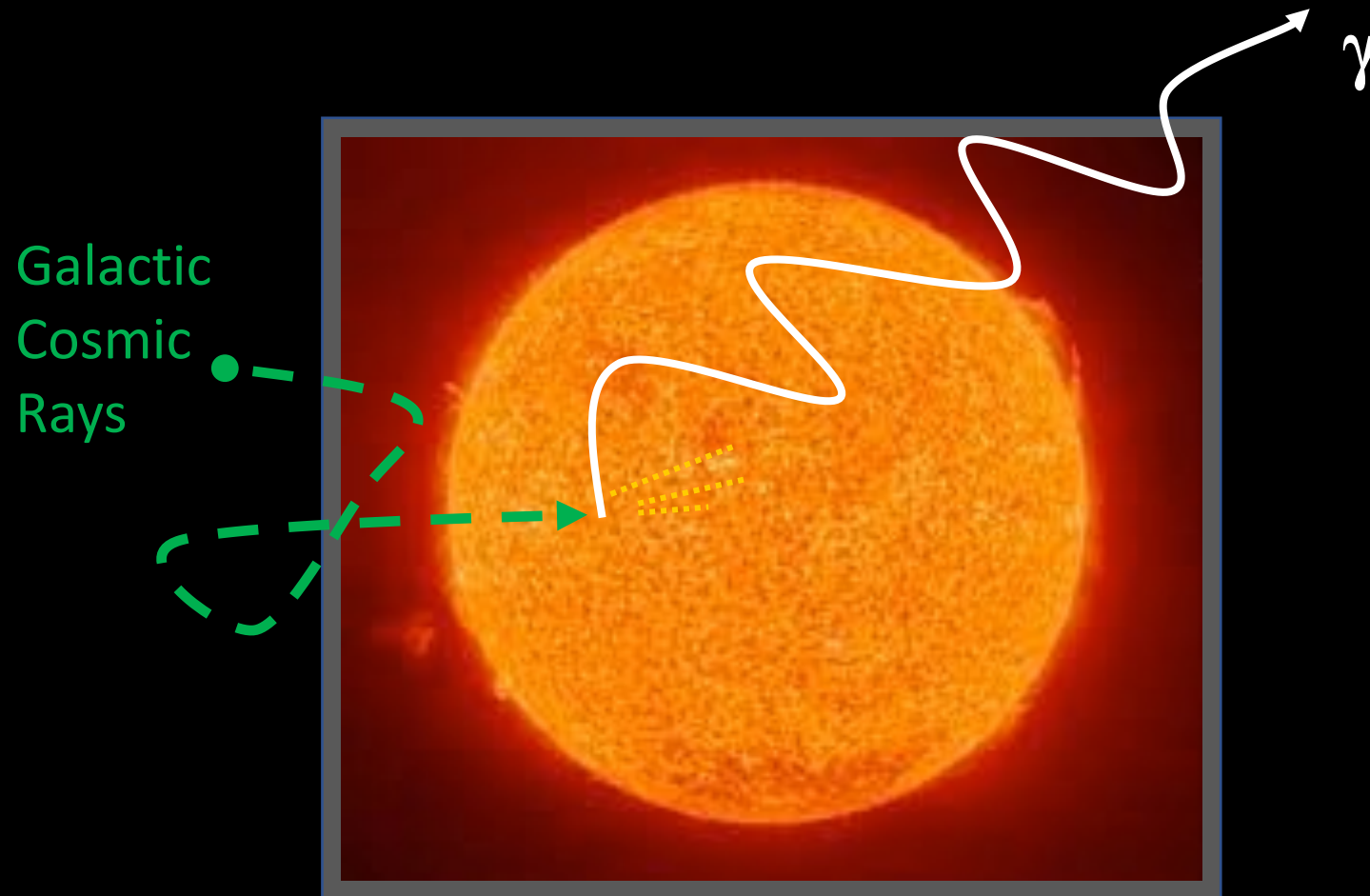
Bruno Arsioli & Elena Orlando

(Accepted to be published in ApJ)

Our Results

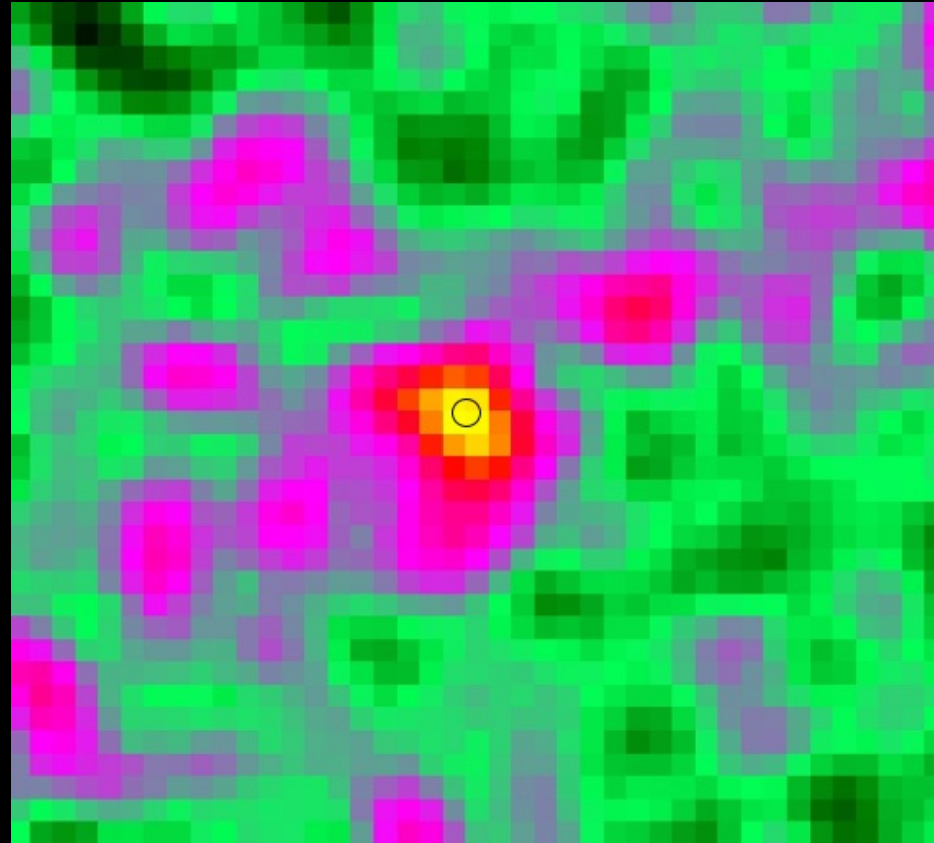


The Quiet Sun Emits Gamma Rays



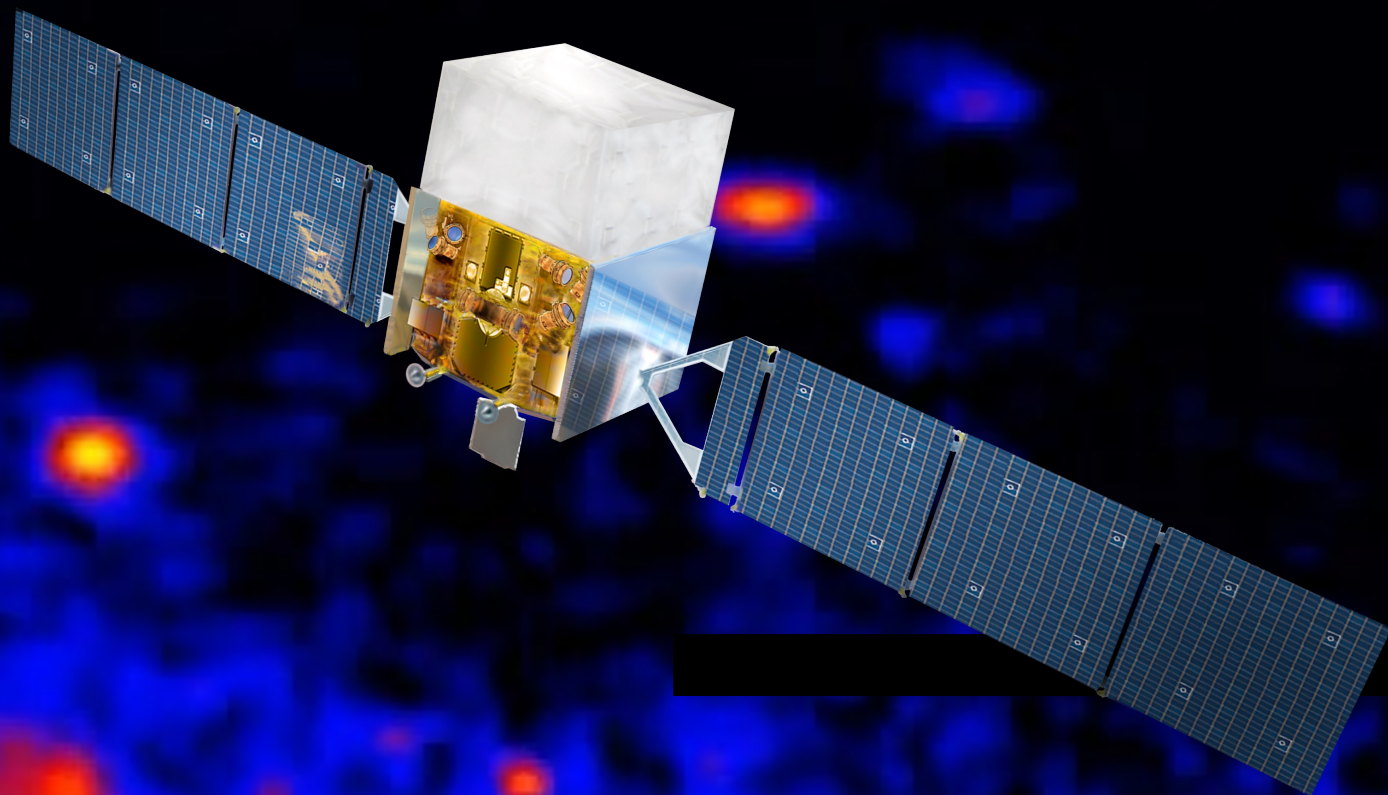
First Discovery of the Quiet Gamma-Ray Sun

EGRET Telescope (1991 - 2000)



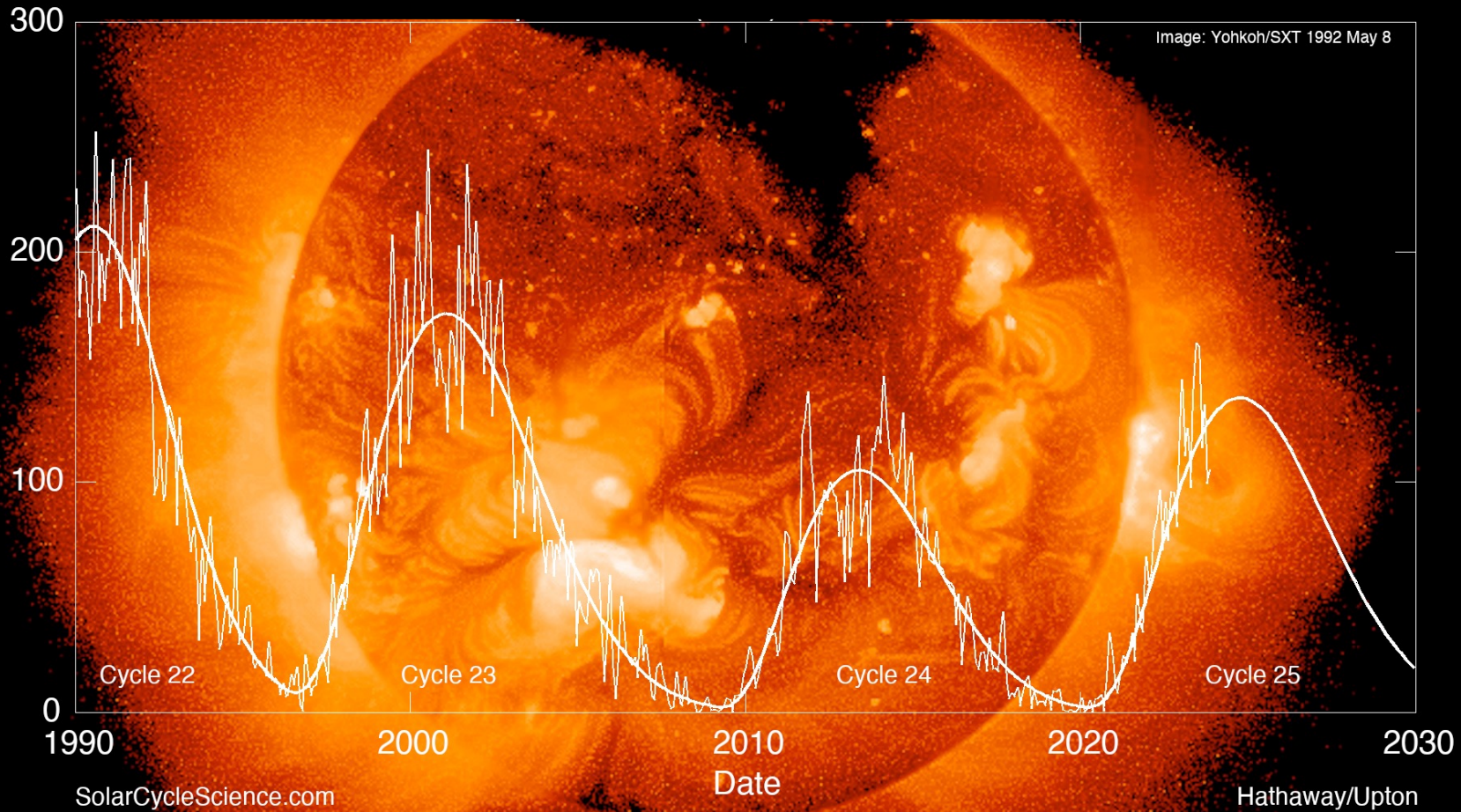
Orlando & Strong 2008

FERMI Large Area Telescope and the Sun

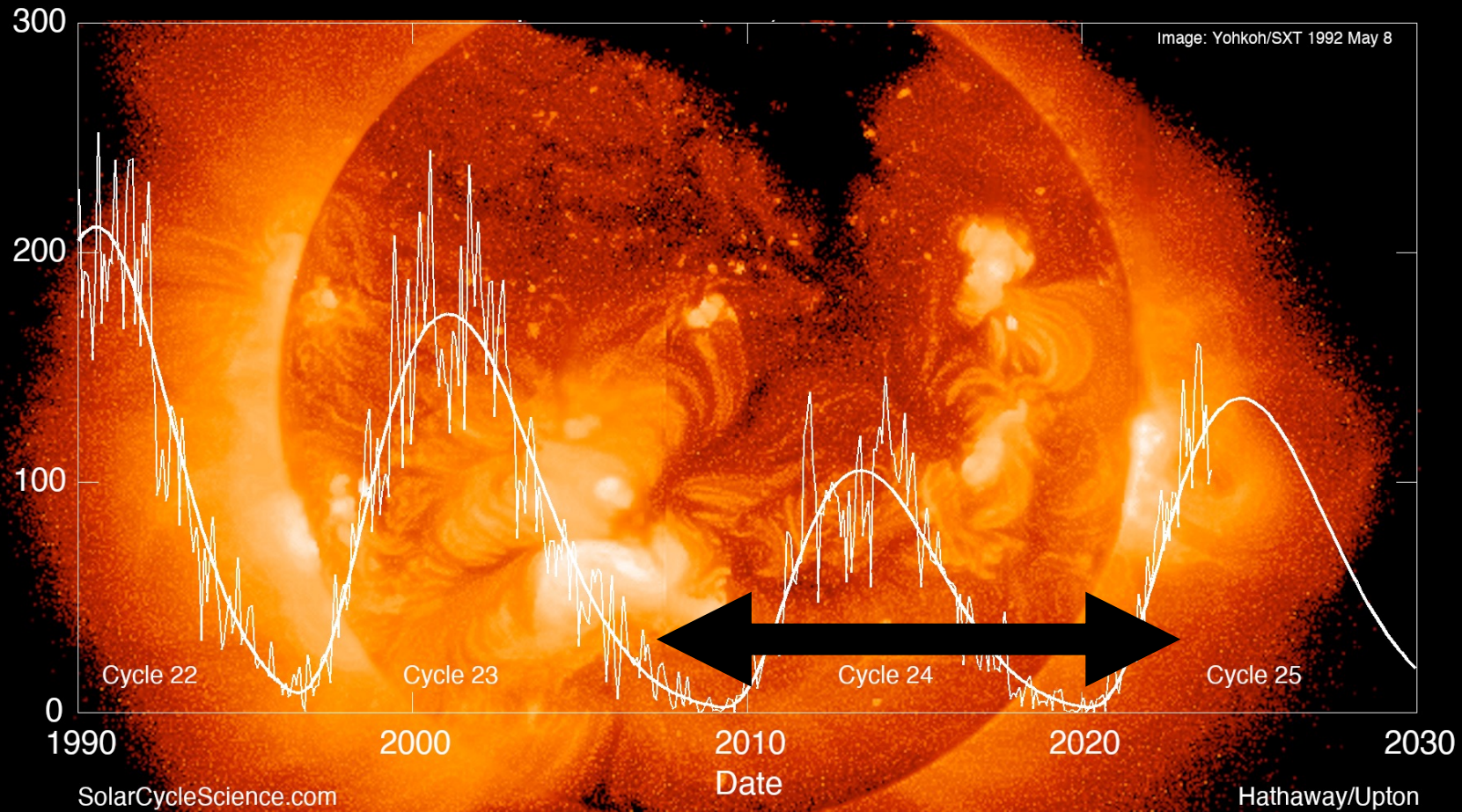


Credit: NASA

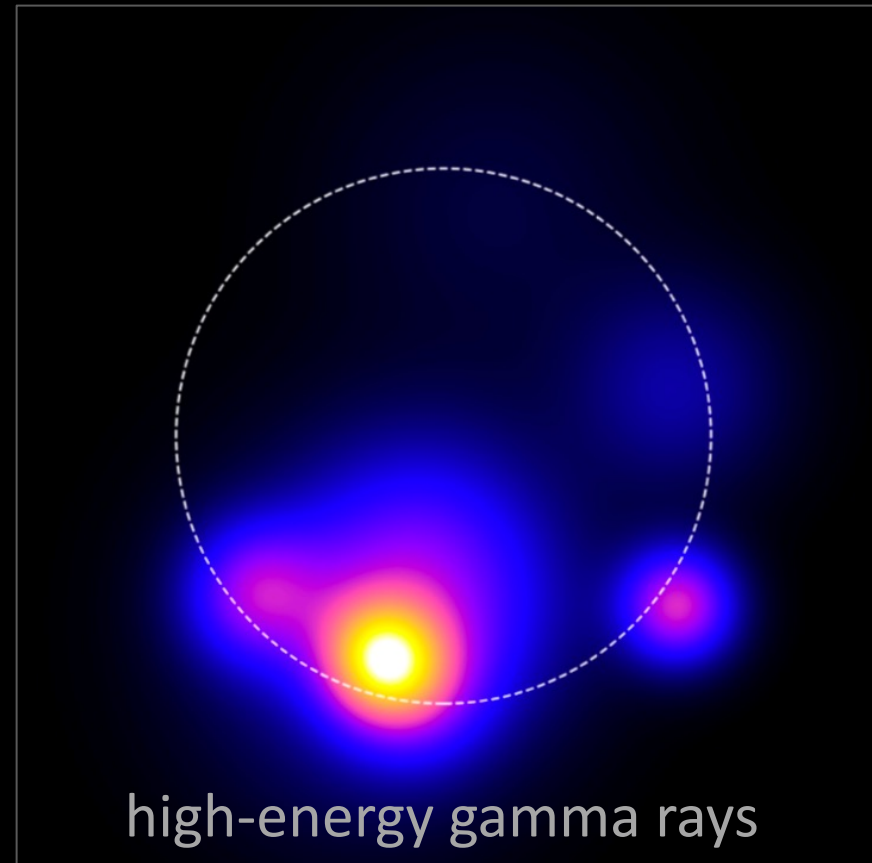
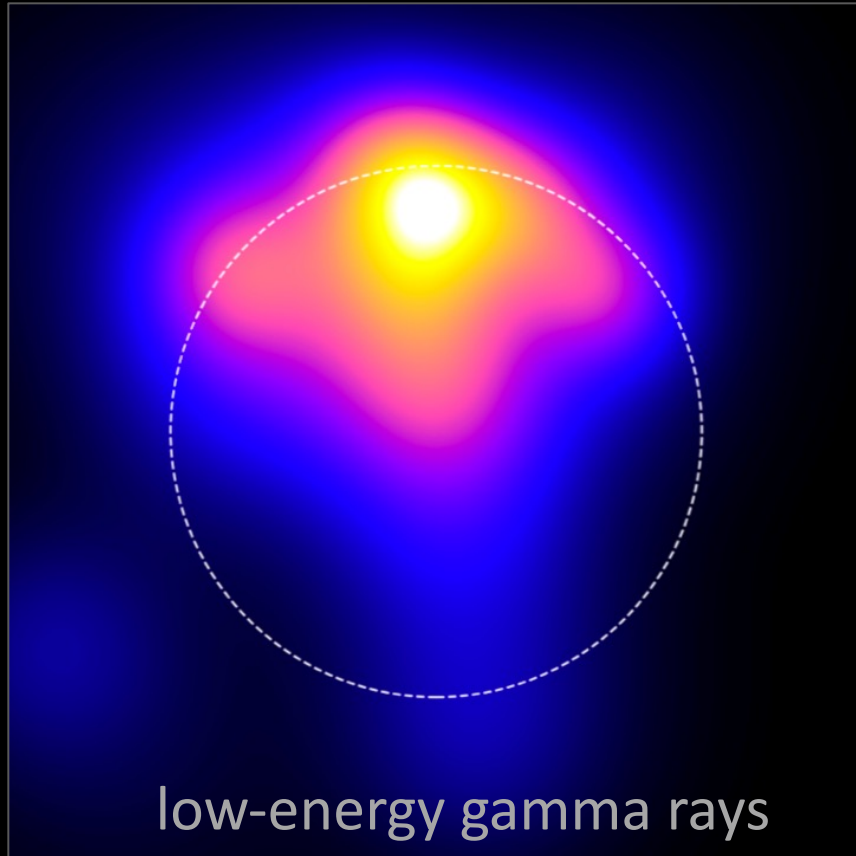
Solar Activity



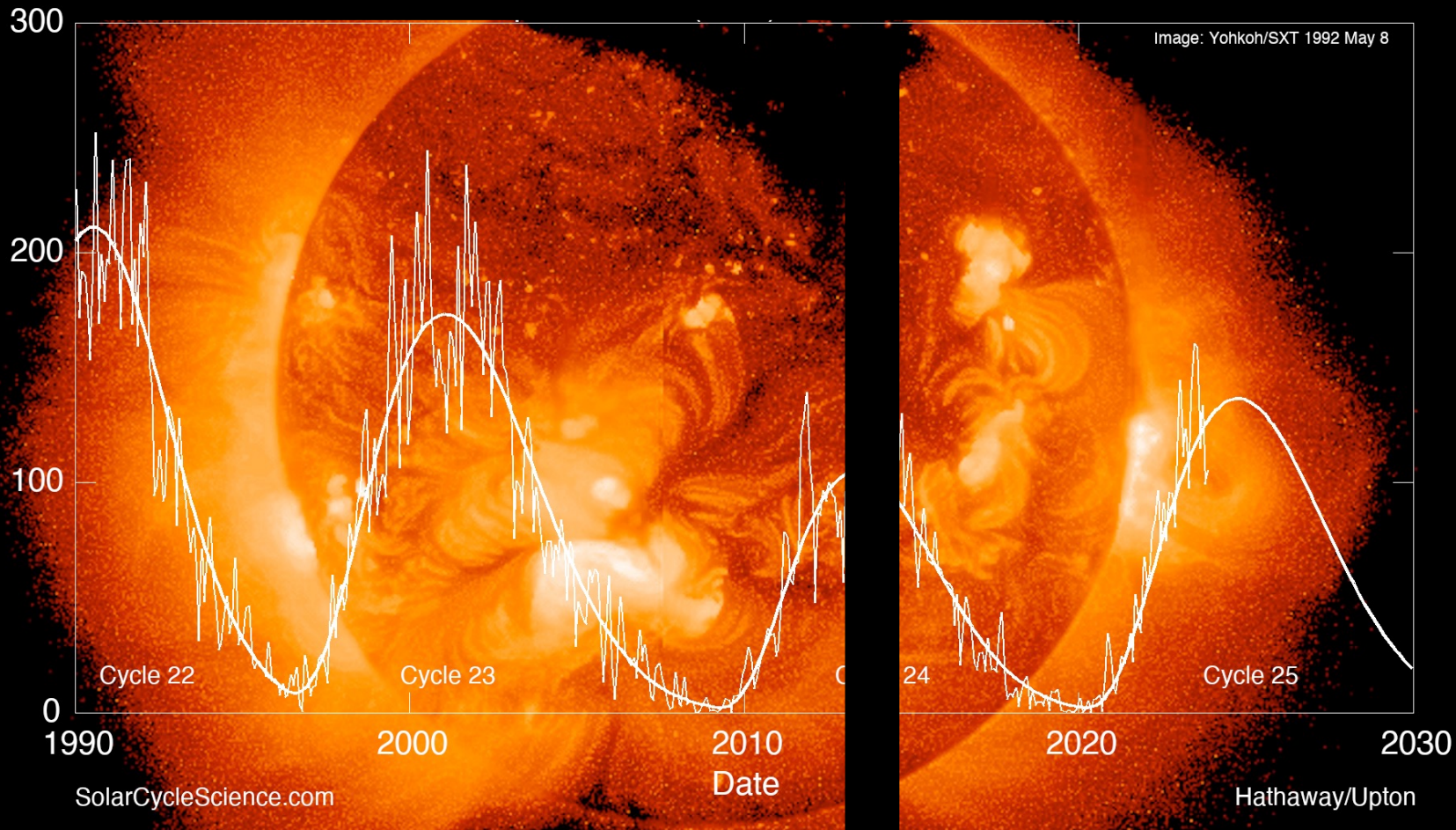
Our Analysis



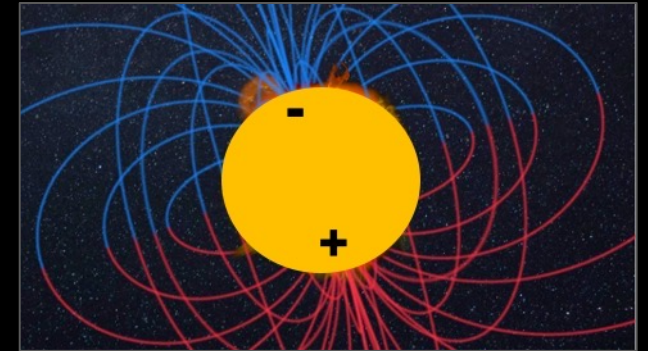
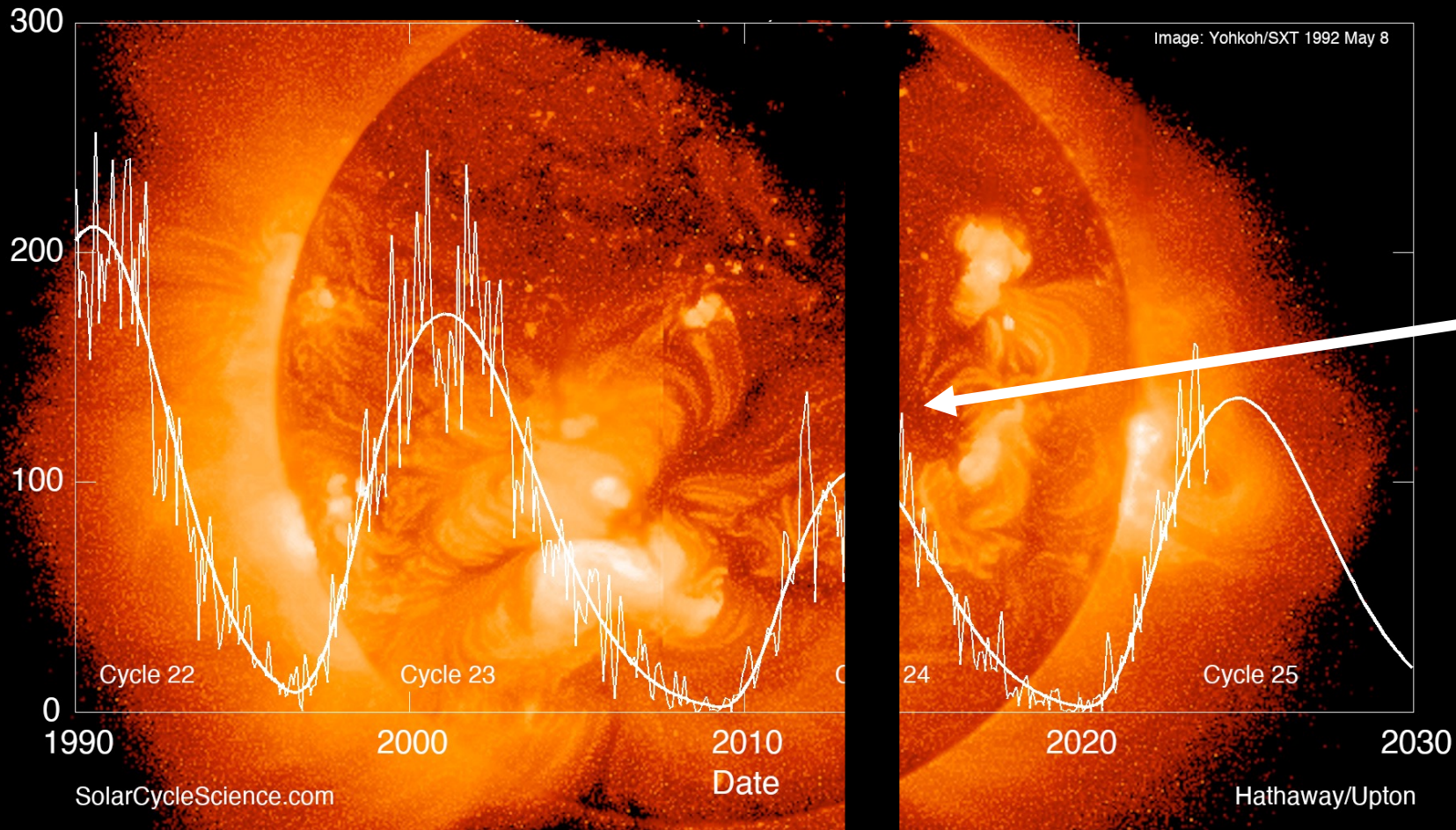
Our Results: Asymmetry



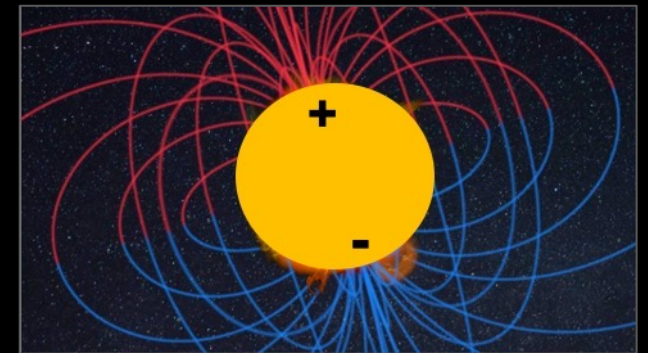
Solar Activity and Magnetic Field



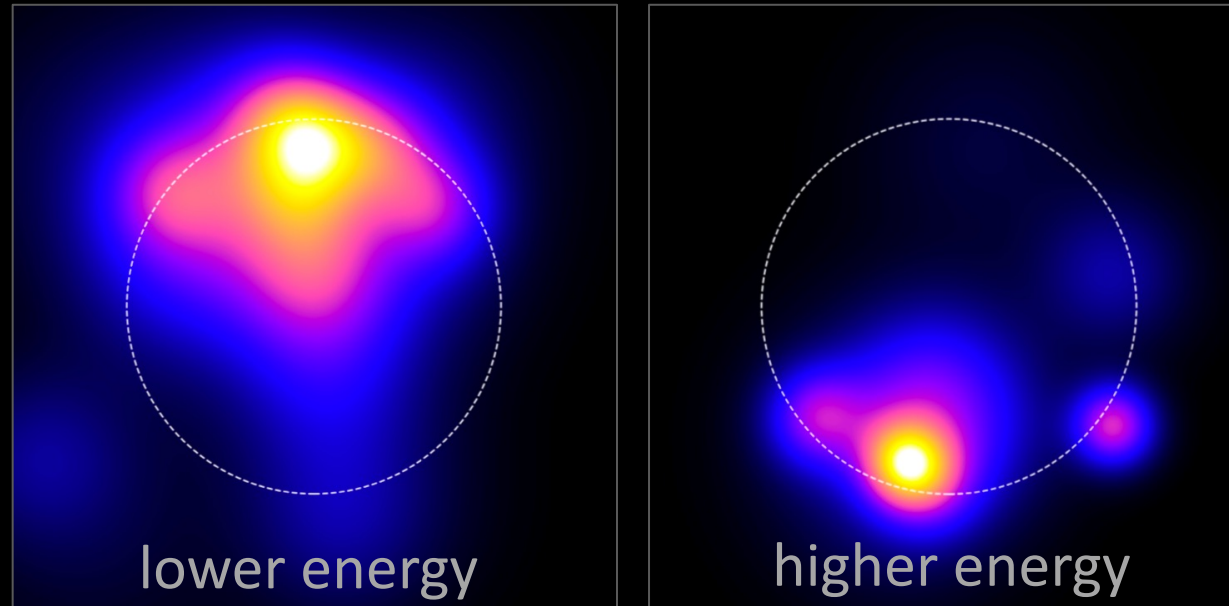
Solar Activity and Magnetic Field



~2014 flip



Our Results: Asymmetry During the Flip



suggests a crucial role of the magnetic field
and opens up a link among
astronomy, particle physics, and plasma physics

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