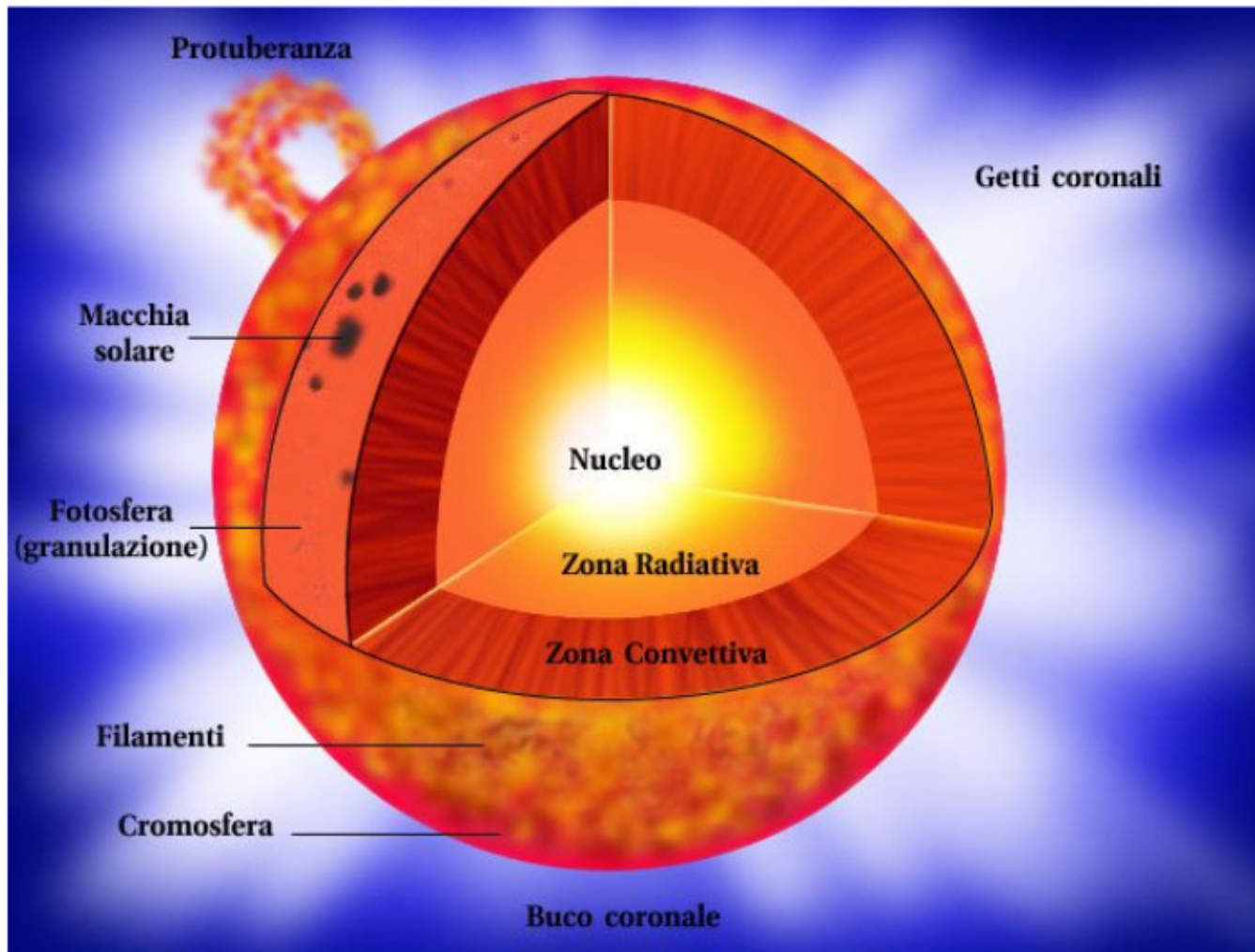
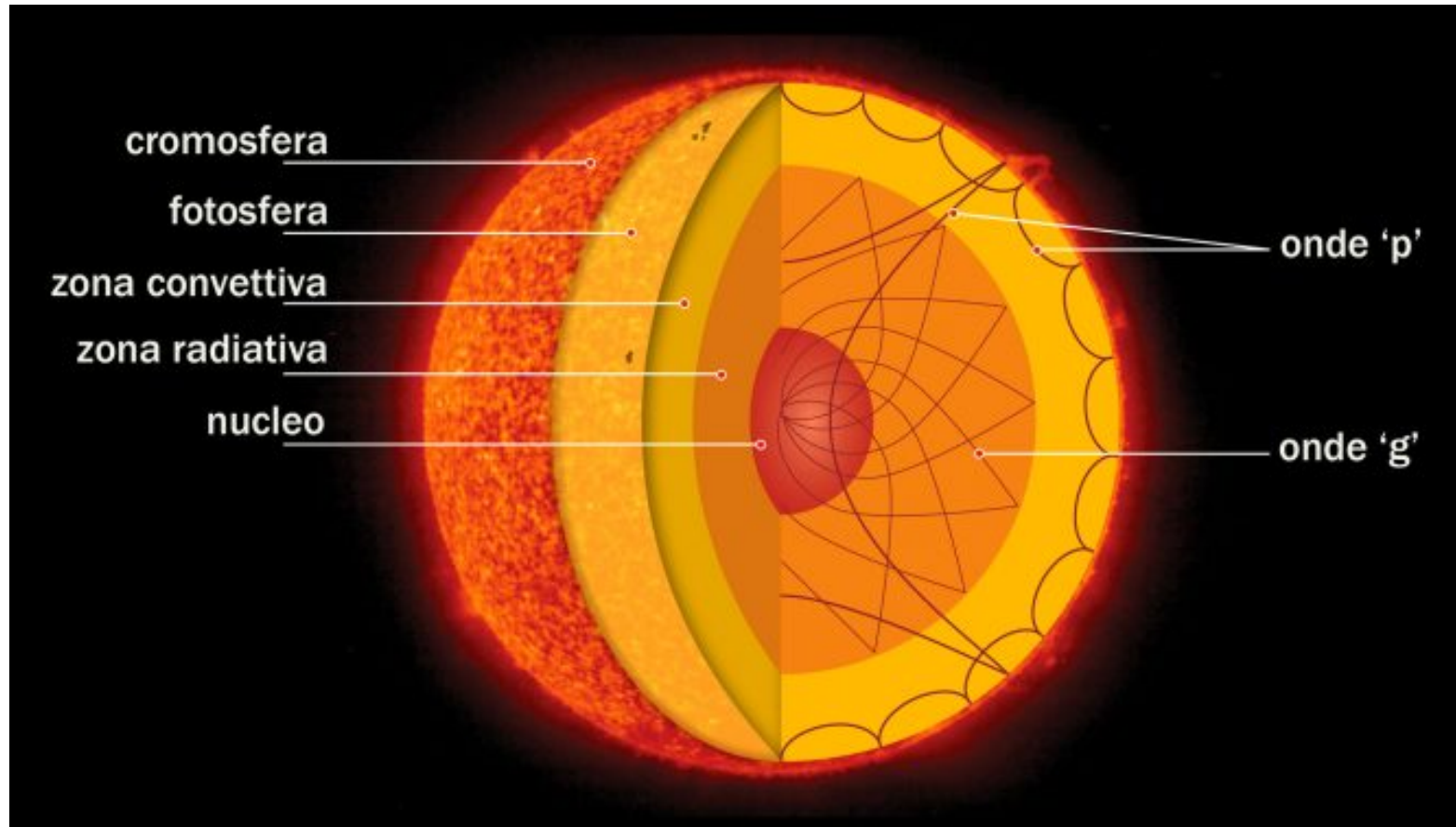


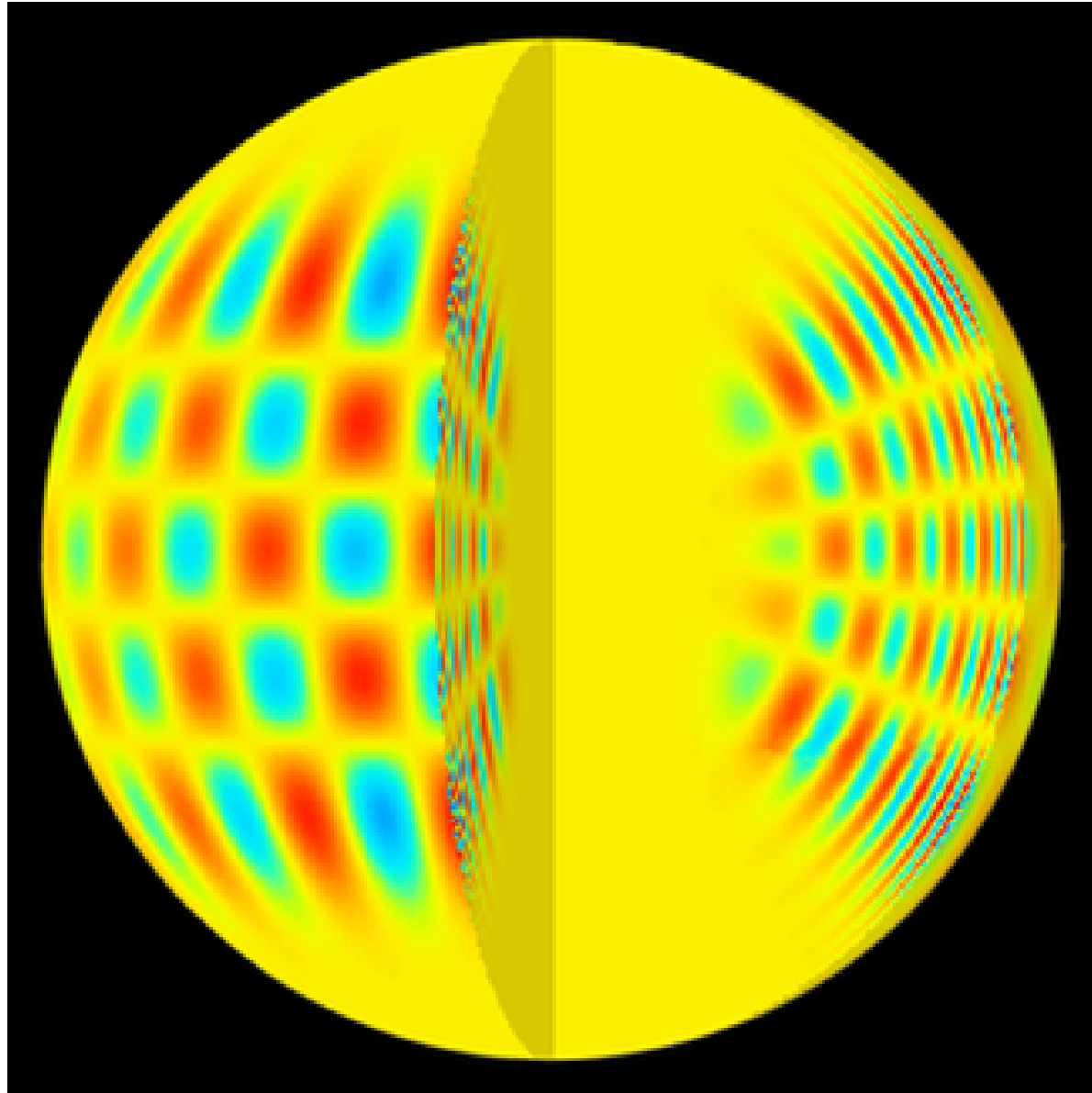
# La struttura interna del Sole



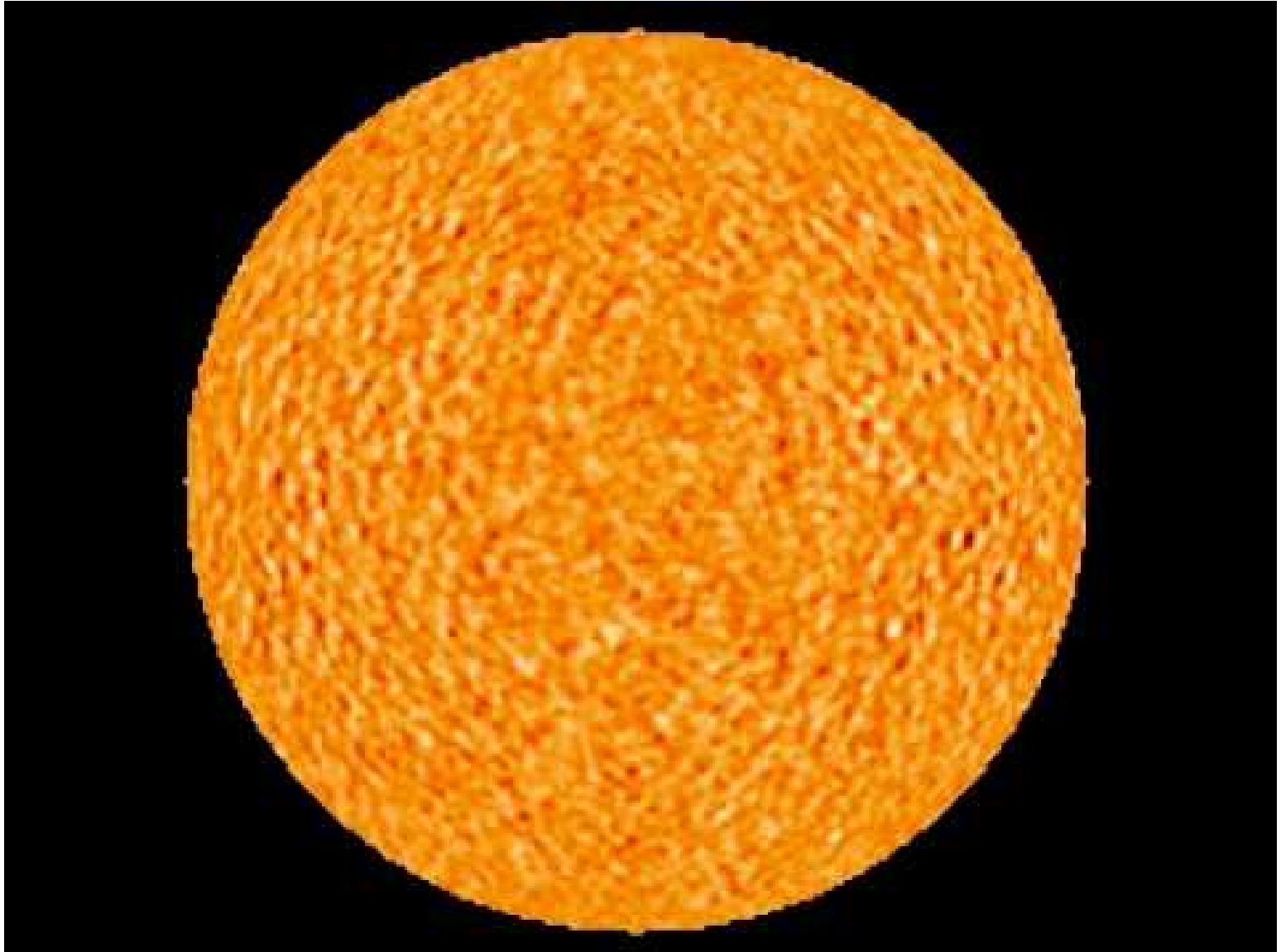
# Eliosismologia



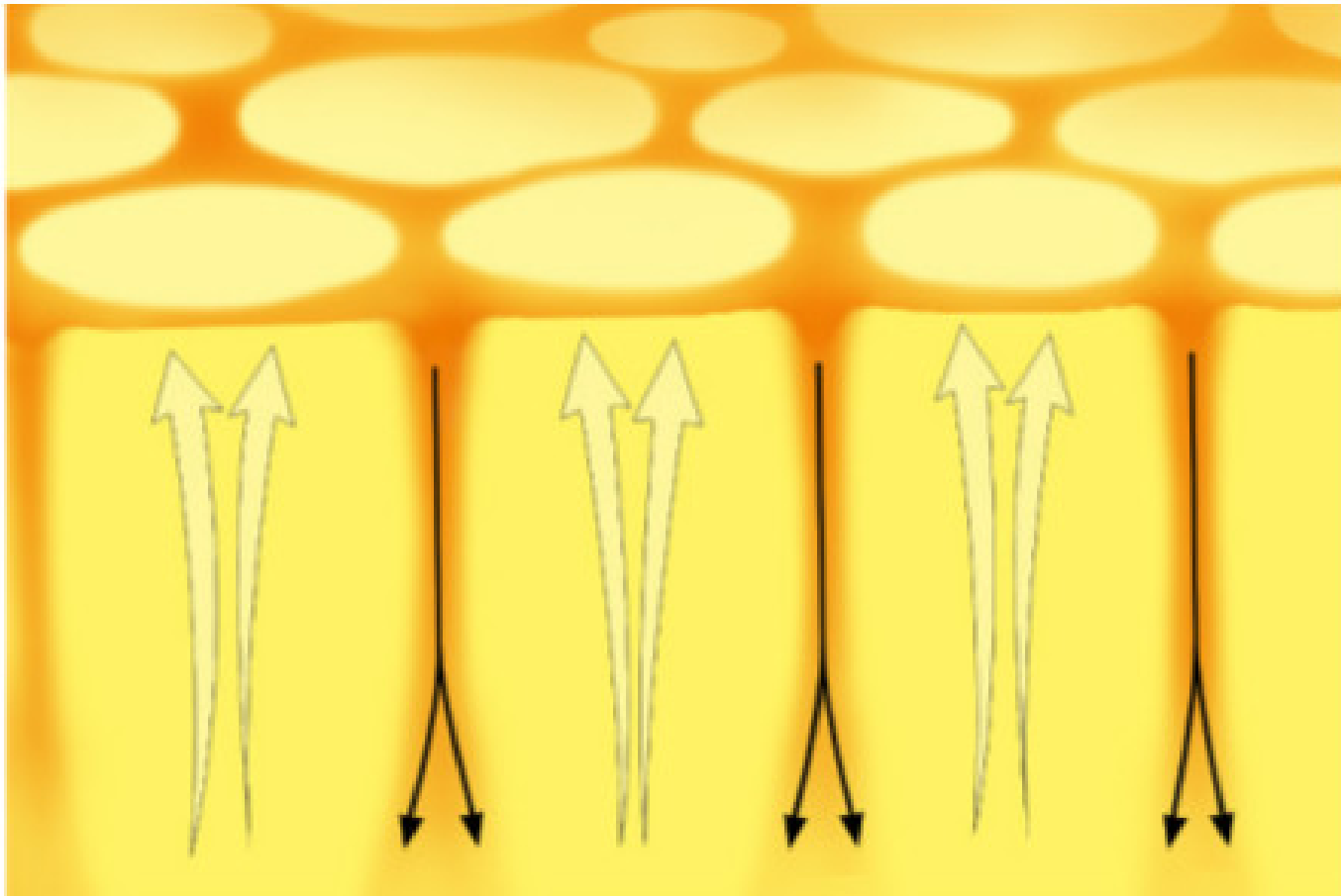
# Onde stazionarie



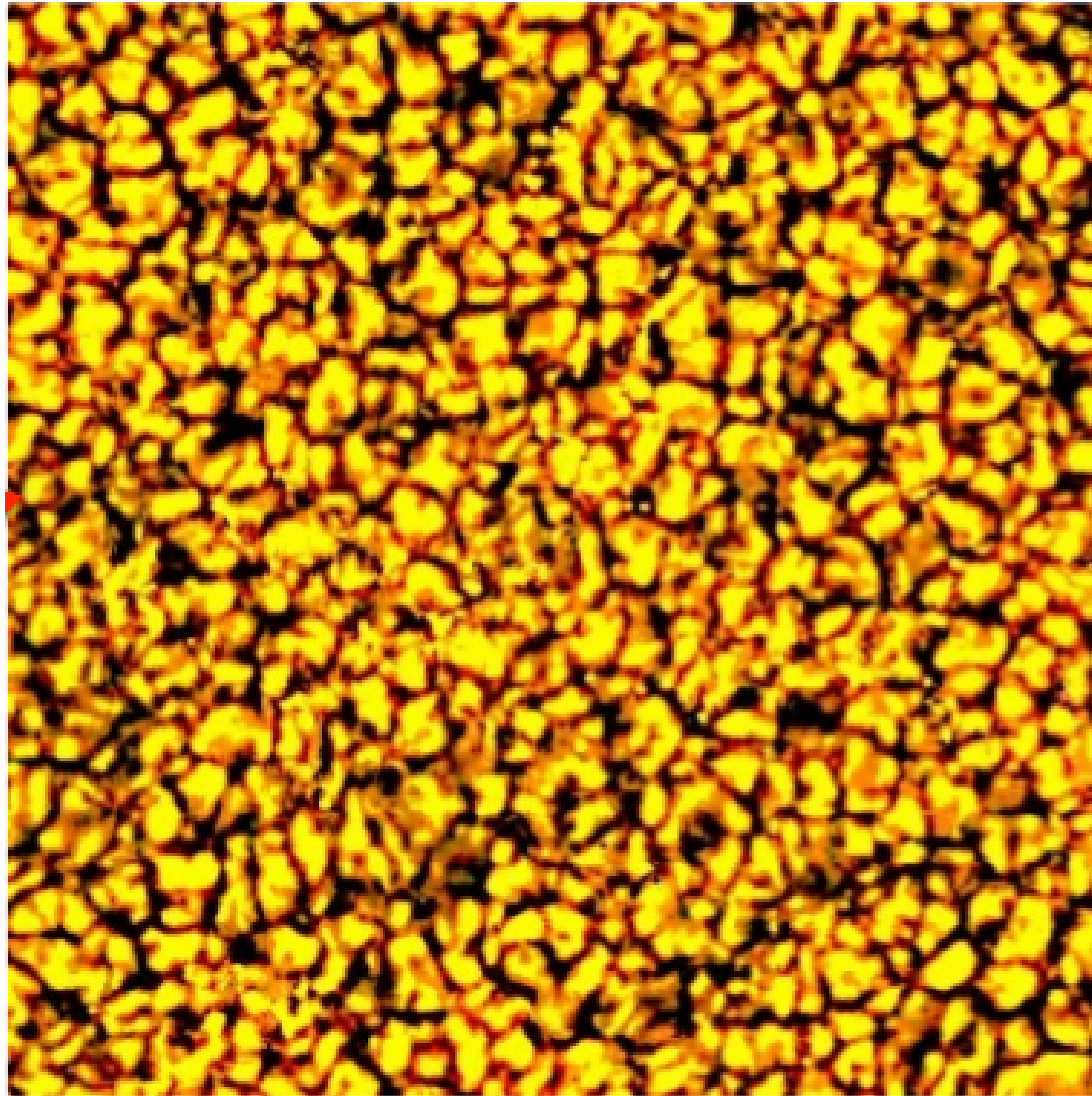
# Modi osservati: effetto Doppler



# Celle convettive

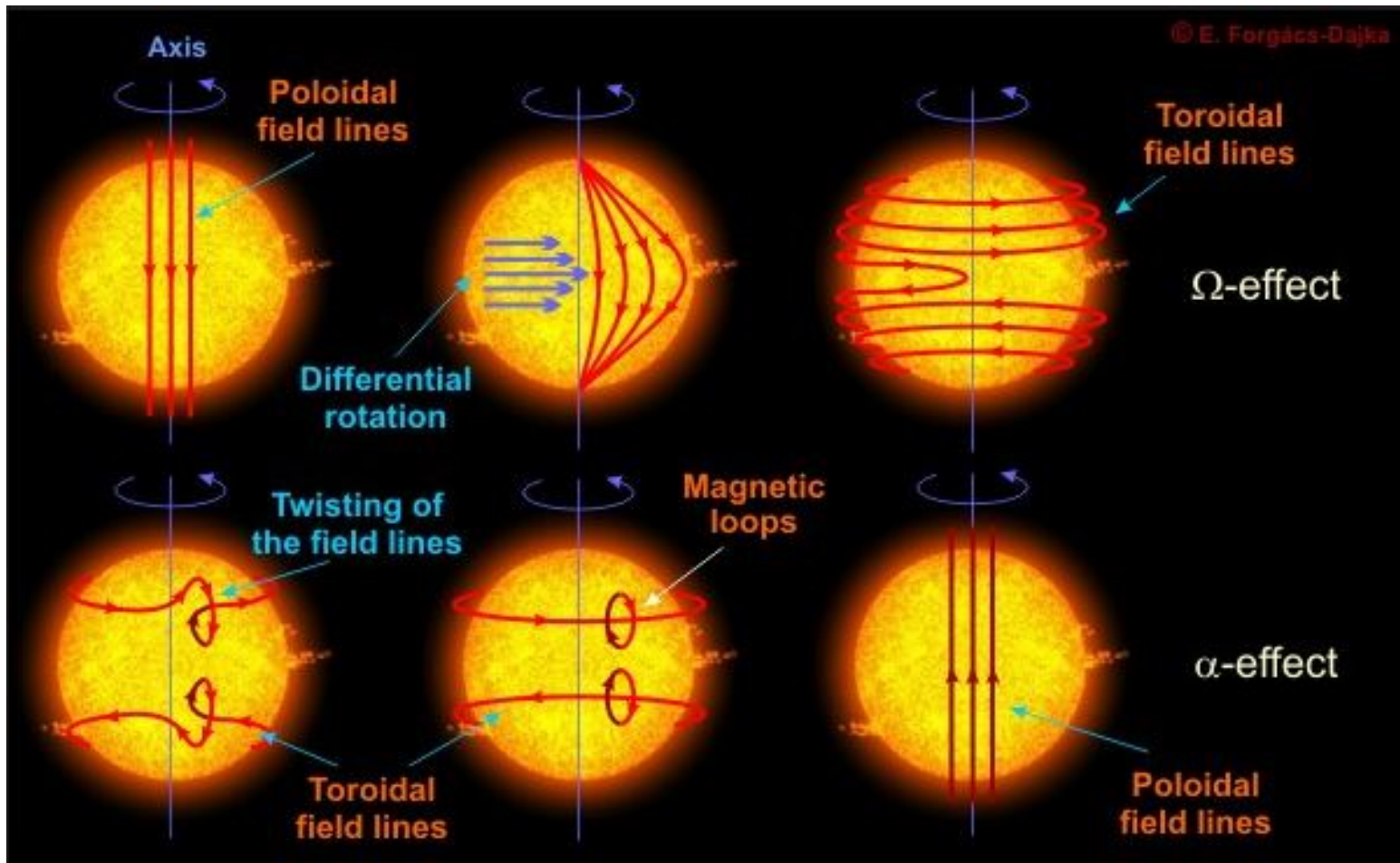


# La granulazione

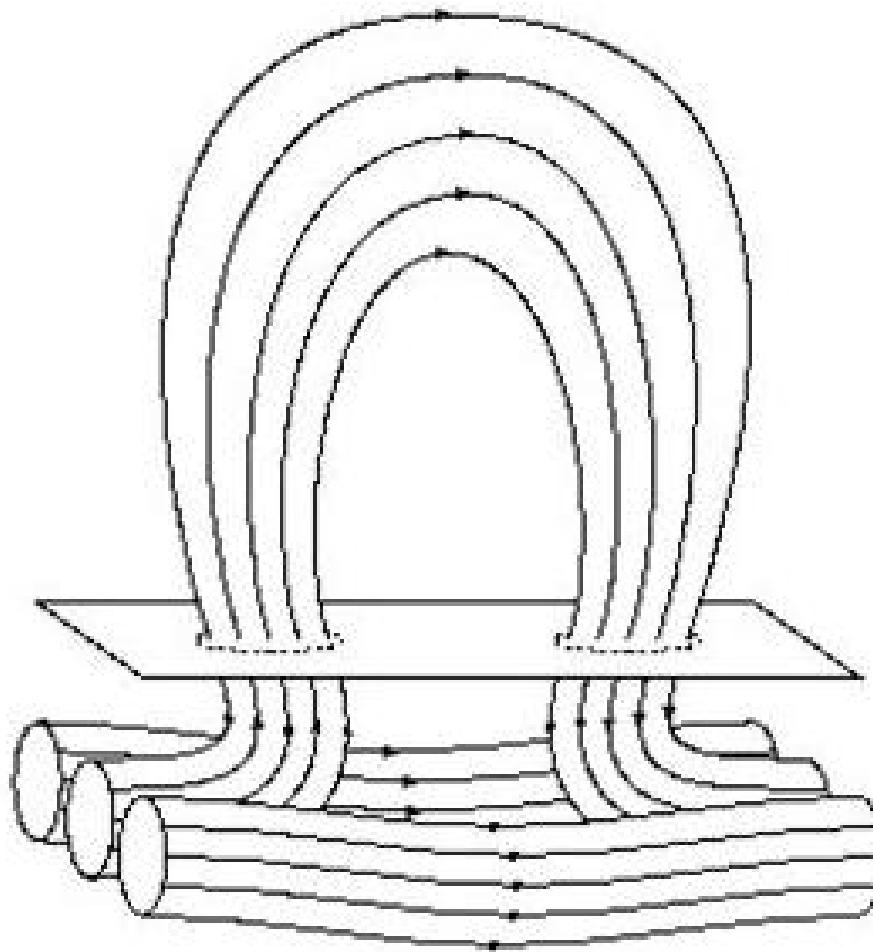




# L'effetto dinamo nel Sole



# Galleggiamento magnetico

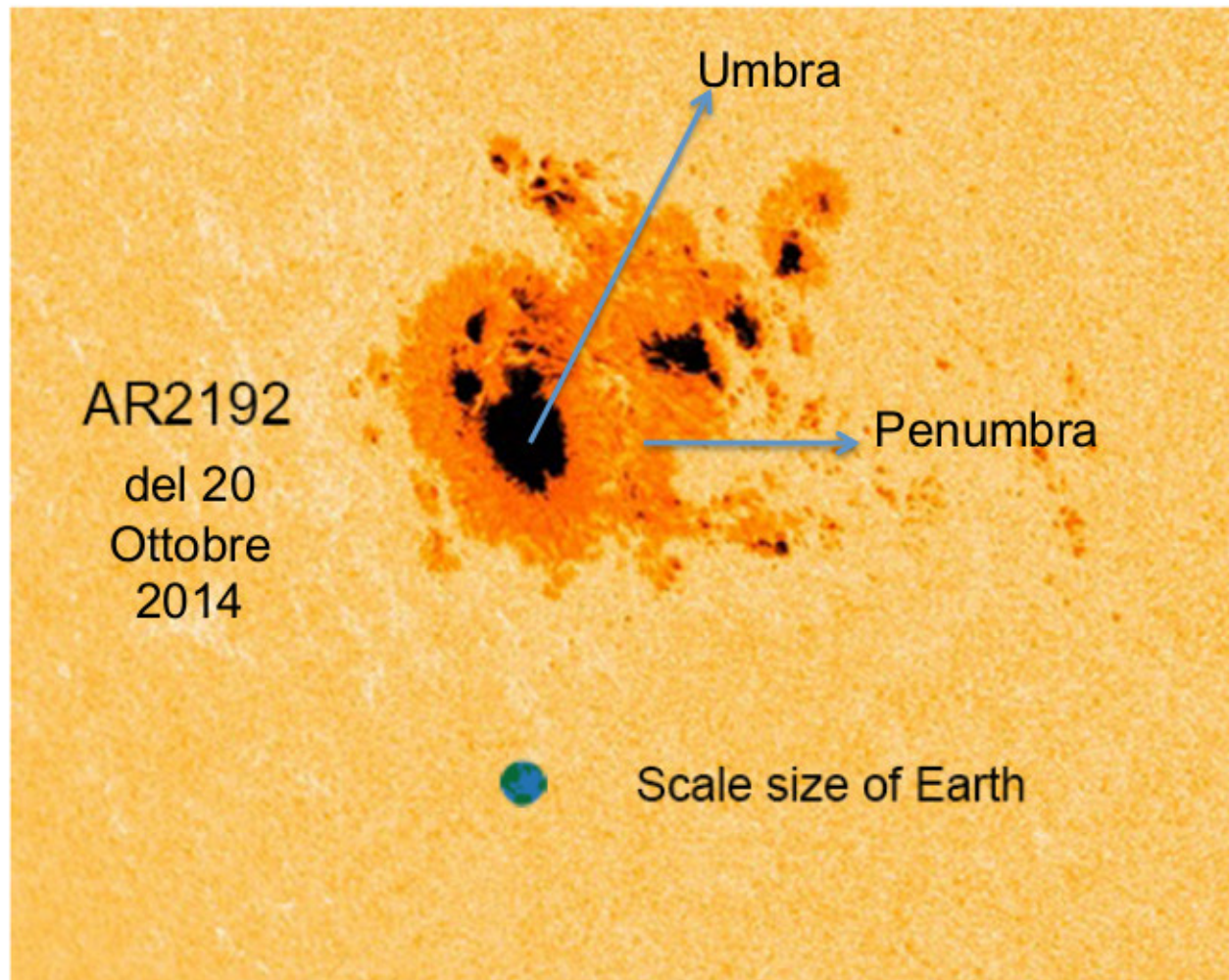




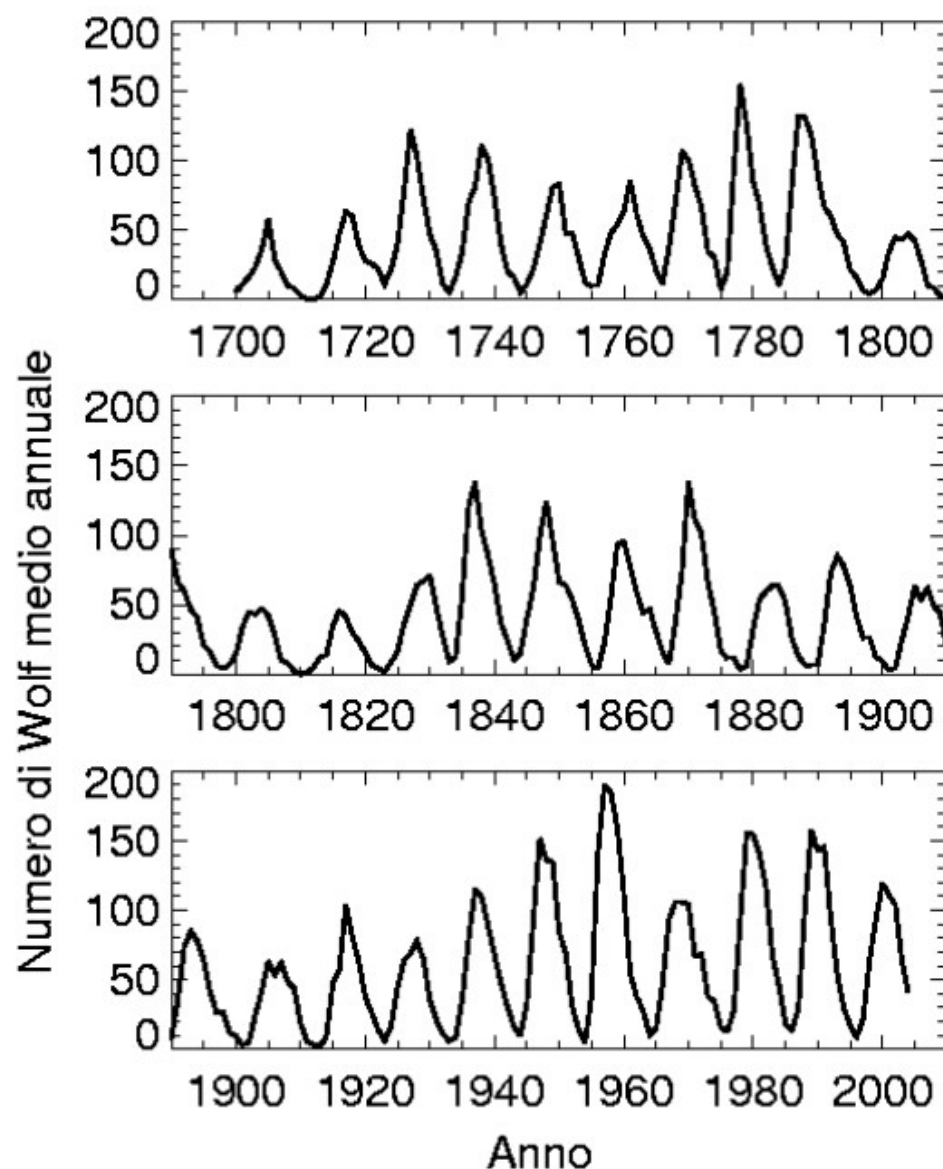
# Macchie solari



# La struttura delle macchie



## Ciclo dell'attivit  solare



$$\text{Numero di Wolf} = k (m + 10g)$$

$m$  = # di macchie

$g$  = # di gruppi di macchie

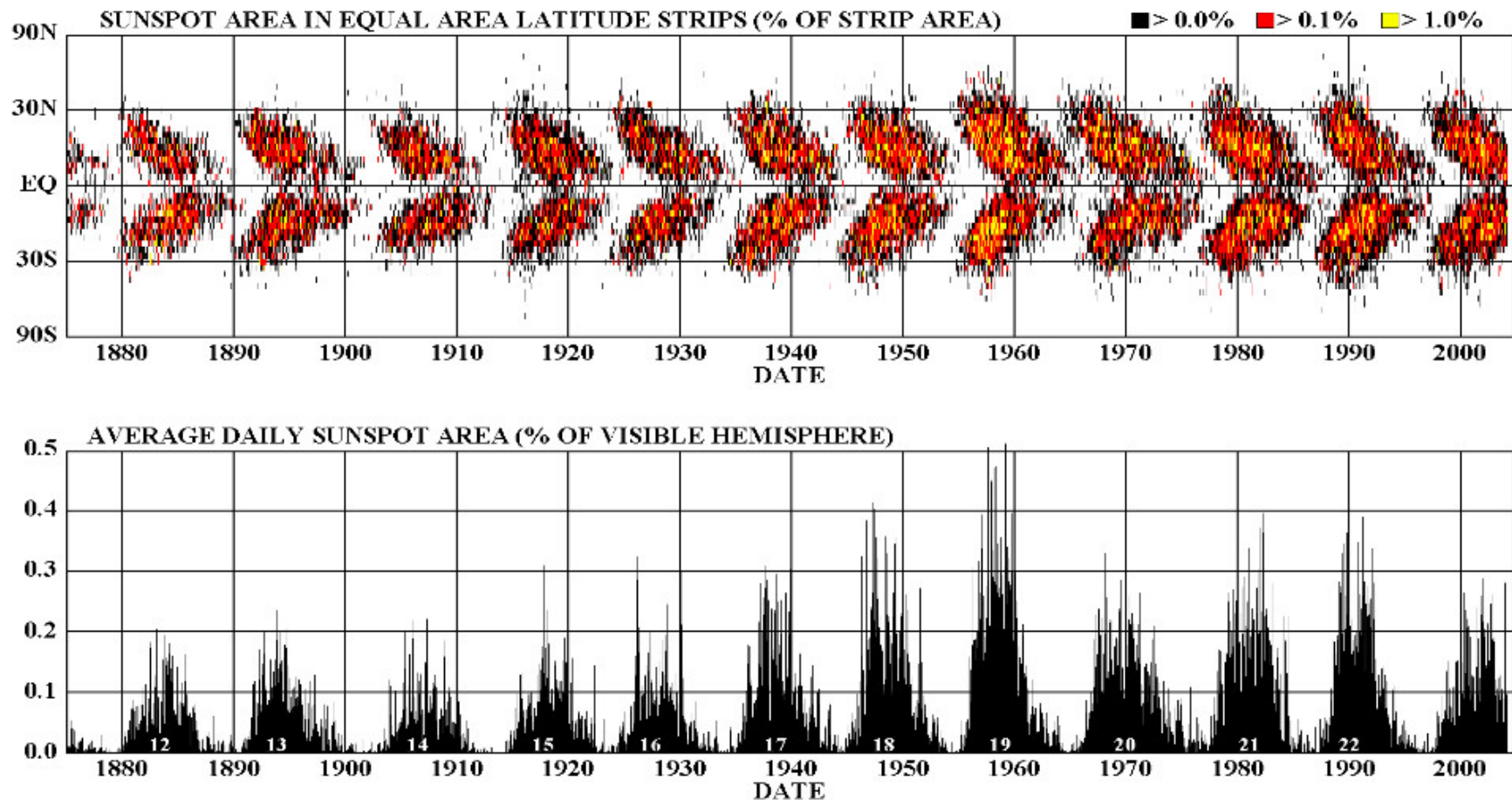
$k$  = fattore correttivo

Il periodo che intercorre tra due massimi (o tra due minimi)   di circa **11 anni**



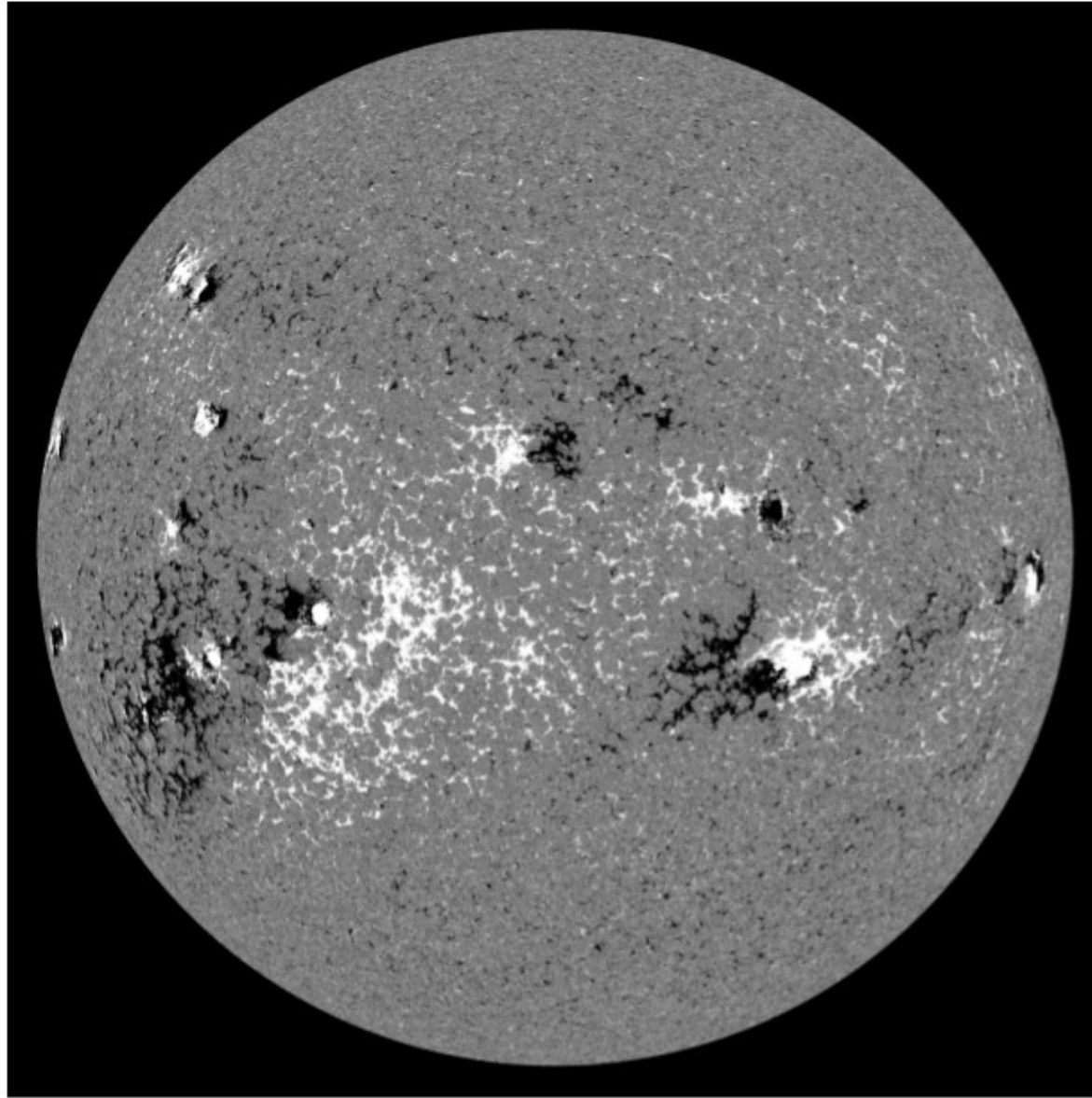
# Il diagramma a farfalla

## DAILY SUNSPOT AREA AVERAGED OVER INDIVIDUAL SOLAR ROTATIONS

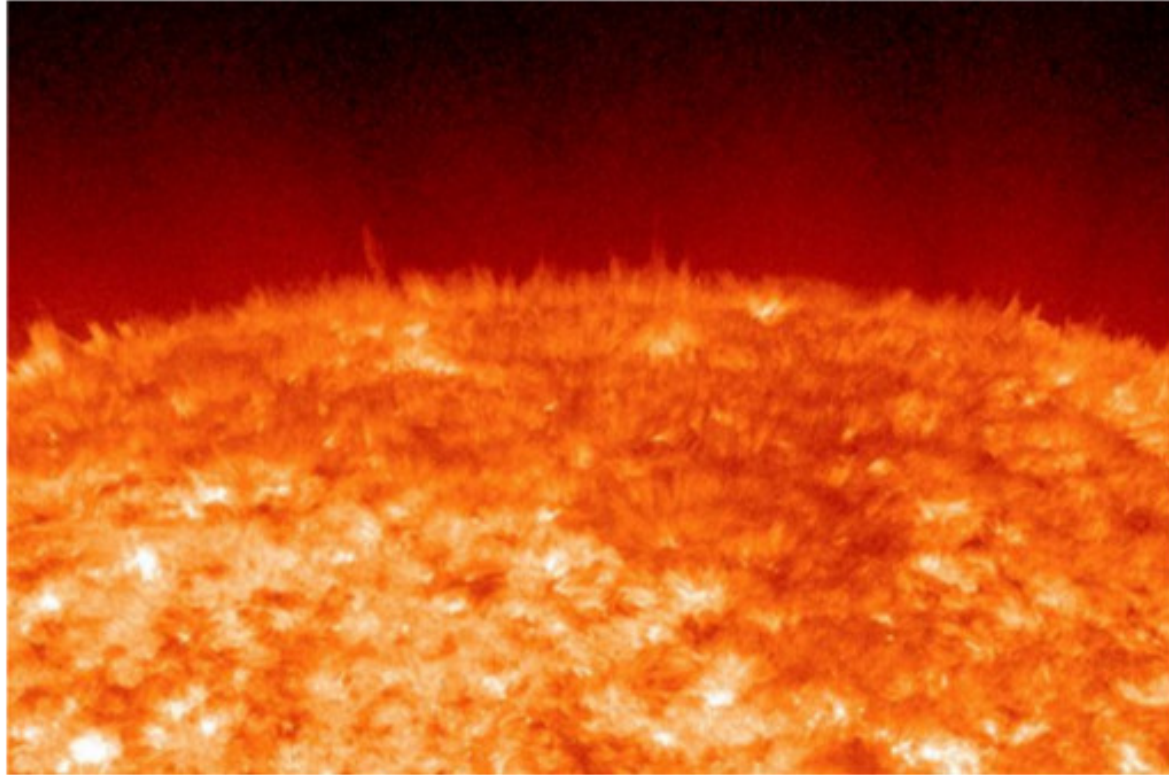


Prima della fase di massima attività le macchie sono a latitudini intermedie ( $\approx 30^\circ$ ), quindi 'migrano' verso la zona equatoriale

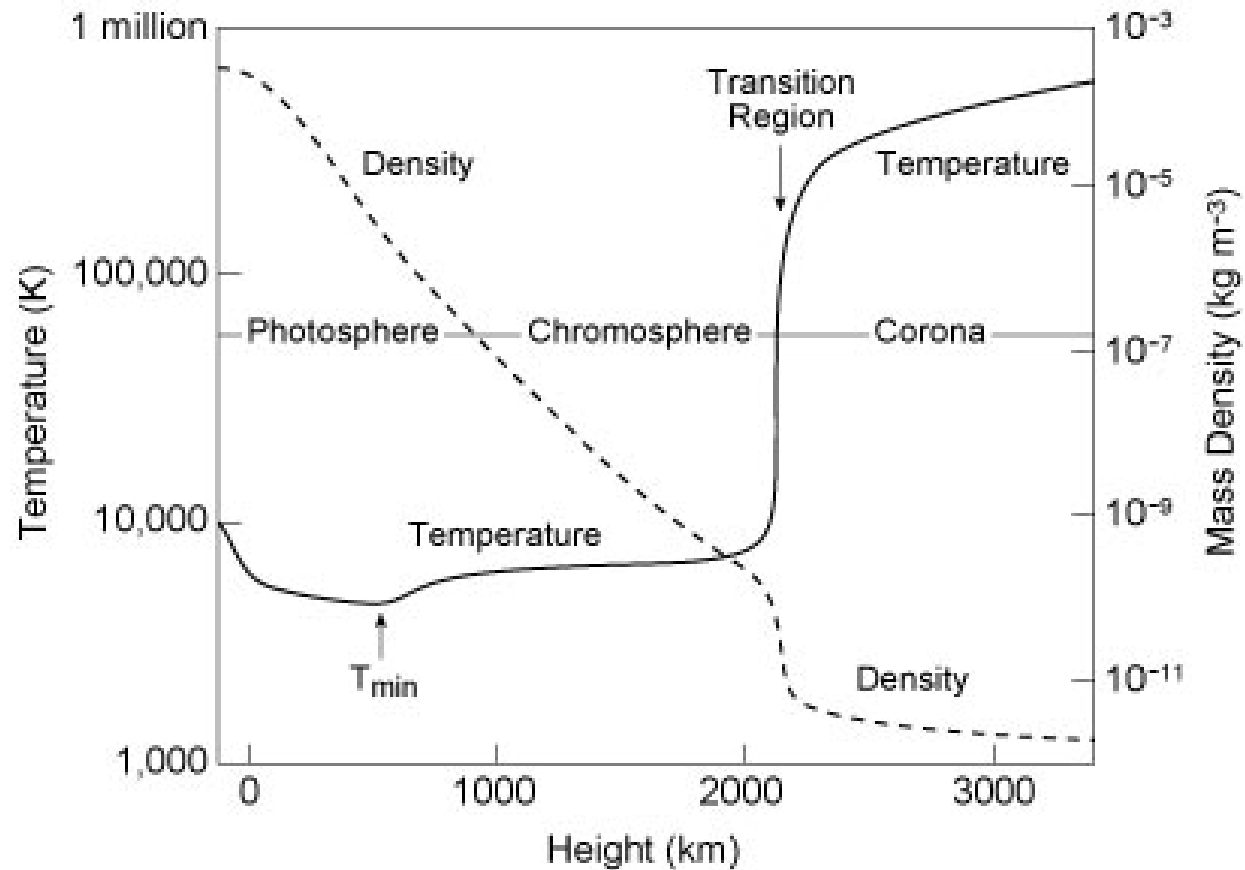
# Magnetogramma: effetto Zeeman



# La cromosfera: spicole

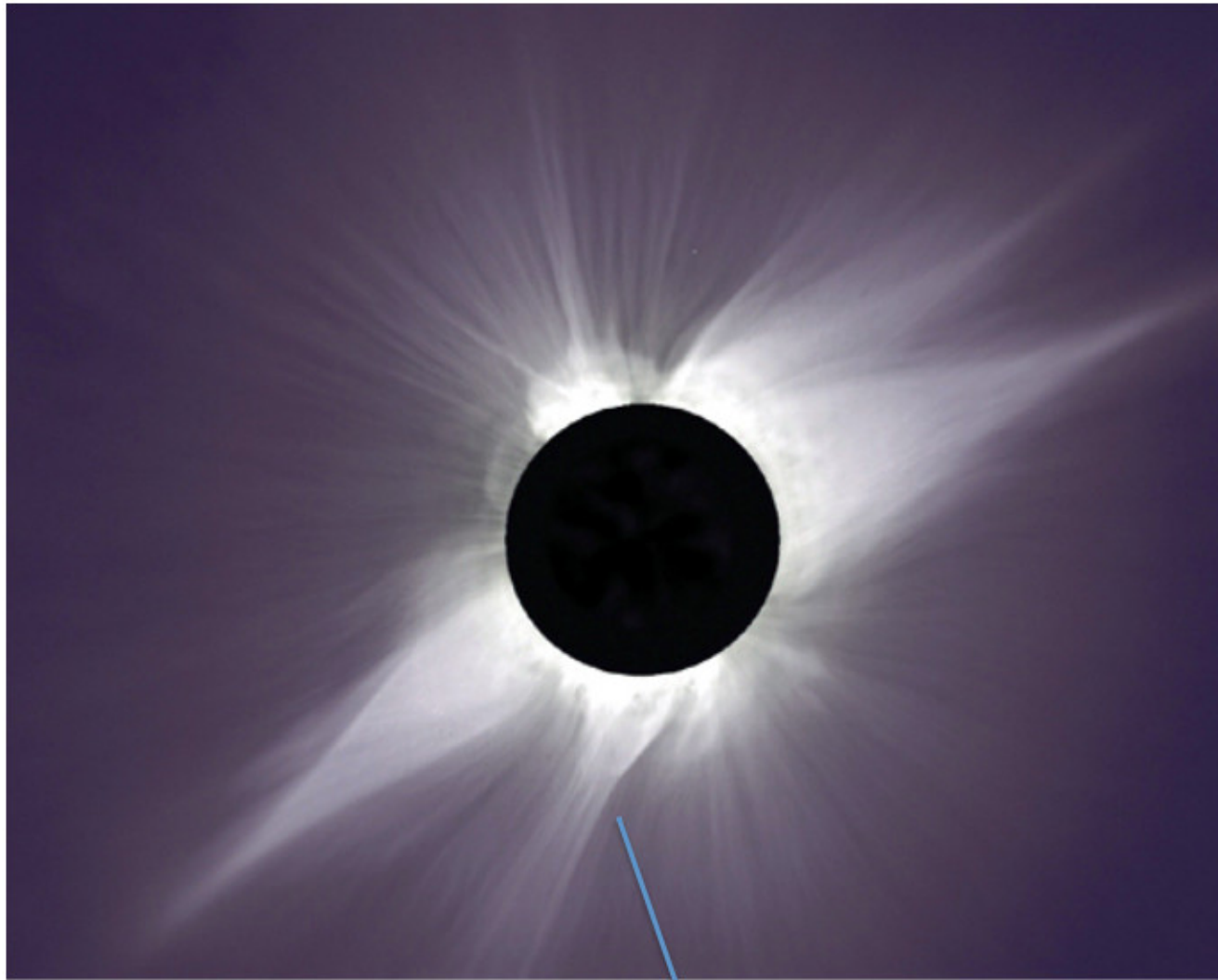


# La temperatura nell'atmosfera del Sole



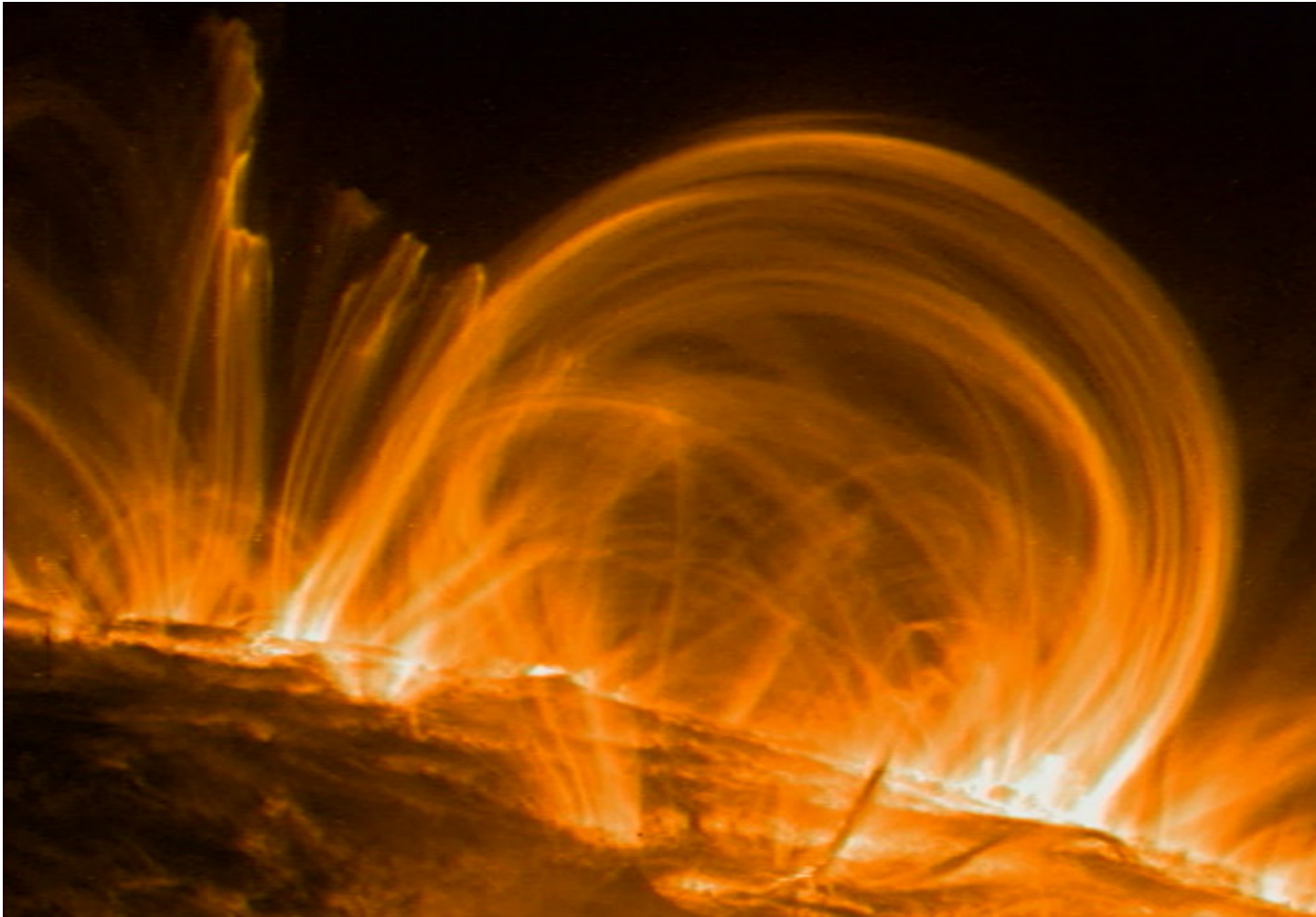


# La corona solare

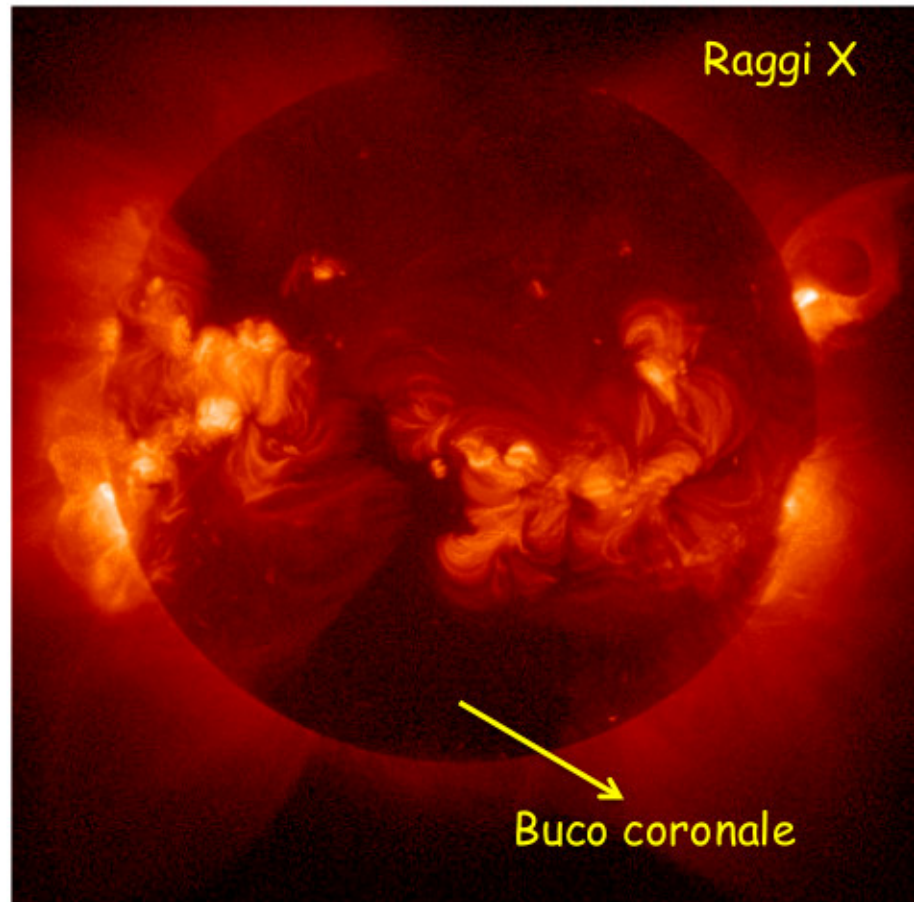


Corona in luce visibile

# Archi coronali



# La corona nei raggi X



# I brillamenti



**QUANDO IL SOLE ERUTTA**

**di Stefano Parisini - Media INAF**

INAF TV

# Coronal mass ejections

