**Information about data [zip file]**

## "On solutions of the PFSS model with GONG synoptic maps for 2006-2018"

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All data files are ASCII

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|----> Photospheric unsigned magnetic flux [Wb]

File: PhotosphericFlux.txt
Column 1: Time [Julian date]
Column 2: Flux [Wb]

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|----> PFSS modelled unsigned magnetic flux at the source-surface and magnetic field at L1

Files: SourceSflux_Rs_Radius_All.txt

Where:
Radius = Radius of the source-surface in the PFSS model
Column 1: Time [Julian date]
Column 2: Flux at the source-surface [Wb]
Column 3: Magnetic field at L1 [T]

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|----> PFSS modelled Coronal Hole (CH) area and open magnetic flux

Files: COHO_full_Rs_Radius_All.txt

Where:
Radius = Radius of the source-surface in the PFSS model
Column 1: J_Day - Time [Julian date]
Column 2: Flux_coho_tot - Open unsigned magnetic flux [Wb]
Column 3: Total_Ar - Total CH area [$m^2$]
Column 4: Total_ar_sun_ar - Total CH area divided by the Sun's surface area
Column 5: B_Coho – CH Magnetic field [Gauss]
Column 6: Flux_coho_np - Open unsigned magnetic flux from norther polar region [Wb]
Column 7: Area_np – CH area for norther polar region
Column 8: Area_np_Sun_a - CH area for norther polar region divided by the Sun's surface area
Column 9: Av_B_np - CH Magnetic field for norther polar region

Column 10: Flux_coho_nh - Open unsigned magnetic flux for [0, 55] degrees latitudinal region
Column 11: Area_nh - CH area for [0, 55] degrees latitudinal region
Column 12: Area_nh_Sun_a - CH area for [0, 55] degrees latitudinal region divided by the Sun's surface area
Column 13: Av_B_nh - CH Magnetic field for [0, 55] degrees latitudinal region
Column 14: Flux_coho_sh - Open unsigned magnetic flux for [0, -55] degrees latitudinal region
Column 15: Area_sh - CH area for [0, -55] degrees latitudinal region
Column 16: Area_sh_Sun_a - CH area for [0, -55] degrees latitudinal region divided by the Sun's surface area
Column 17: Av_B_sh - CH Magnetic field for [0, -55] degrees latitudinal region
Column 18: Flux_coho_sp - Open unsigned magnetic flux from southern polar region
Column 19: Area_sp - CH area for southern polar region
Column 20: Area_sp_Sun_a - CH area for southern polar region divided by the Sun's surface area
Column 21: Av_B_sp - CH Magnetic field for southern polar region

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|----> To associate Longitude with Date/Time

Files: LongitudeDateYYMMDDHH.dat [contain information about longitude and corresponding date, etc.]

Where:
YY = Year (last two digits)
MM = Month
DD = Day
HH = Hour

The columns in the file are:
Column 1: Longitude [degrees]
Column 2: Year
Column 3: Month
Column 4: Day
Column 5: Hour
Column 6: Minute
Column 7: Carrington rotation number
Column 8: Carrington longitude

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|----> PFSS Derived Coronal Holes (CH) [1/Fs is used]

To plot PFSS modeled CH use data files:  DataNameYYMMDDHH_Rs_Radius.dat

Here:
DataName = FsTbnWSA (to plot PFSS derived coronal holes)
DataName = BlinesSubEarth (to plot open magnetic field lines which connect to sub-Earth positions)
YY = Year (last two digits)
MM = Month
DD = Day
HH = Hour
Radius = Radius of the source-surface in the PFSS model

** Data in the FsTbnWSA files are:
  181    91   is the size of the grid (181x91 longitude-latitude grid)
Column 1: Longitude [degrees]
Column 2: Latitude [degrees]
Column 3: fs2 - fs for open magnetic field lines traced from the source-surface to the photosphere
Column 4: Tb - Distance of the open magnetic line footpoint from the CH boundary at the solar surface
Column 5: Fs - Flux tube expansion (the sign is associated with polarity, and 10^10 means no open magnetic field line is obtained for particular Latitude-Longitude at the solar surface)
Column 6: Vs [km/s] - solar wind speed (a WSA type) associated with the open magnetic field line

** Data in the BlinesSubEarth files contain open magnetic field lines which connect to sub-Earth positions
Each open magnetic filed line has
Number 1: Number of steps (dimension of data that describes the line)
Number 2: Polarity of the magnetic field line
Column 1: Longitude [degrees]
Column 2: Radius [R_0]
Column 3: Latitude [degrees]
Column 4: Step count