SO/PHI data request form

(Cruise phase + first science orbit; SO/PHI-Team internal version)

Global coronal magnetic field modelling

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MPS

Science case (stay on one slide):

Please also state, why is PHI needed; why is the science unique?

- We use synoptic vector magnetograms as boundary condition for reconstructing the solar coronal magnetic field with nonlinear force-free and stationary MHD-models.
- SO/Phi-data are used in combination with SDO/HMI measurements to create the synoptic vector magnetograms. Polar measurements from Phi and measurements from behind the Sun will provide much more powerfull synoptic maps as from HMI alone.
- The inner corona (up to about two solar radii) can be modelled with a nonlinear force-free model. Further outwards a stationary MHD-model is used.

Requirements/data (use additional slide if needed)

Besides best guess requirements, you may also list minimum requirements on the data

- Type of solar feature: full sun
- HRT or FDT: FD to make synoptic vector maps
- Physical parameters needed (available: B_LOS, vector B, v_LOS, I_c, raw data): vector B
- Total length of observation: any, each snapshot treated separately
- Cadence (maximum 1 dataset/min): no special requirements
- Pointing needs (disc centre, limb, active region location, particular μ):
- Orbit needs (spatial resolution/co-rotation/angle to Earth/angle to other spacecraft):
- Total number of datasets: any
- Full frame 2k x 2k or partial frame 1kx1k, 0.5kx0.5: 0.5kx0.5k
- Full resolution or 2x2, 4x4 binned data: 4x4 binned or even binned more
- noise level (default 10^{-3}): not specified
- Co-observations with other instruments: no
- Special requests: no