Contribution ID: **226**   Type: **Poster**

The highest resolution full-disk magnetic field maps, obtained with SO/PHI

The Polarimetric and Helioseismic Imager onboard the Solar Orbiter spacecraft (SO/PHI) has the unique opportunity to scan the entire solar disk within approximately 4 hours with its High Resolution Telescope (HRT). Such a so-called "full-disk mosaic" was produced on March 22, 2023 at a solar distance of 0.495 AU where the SO/PHI-HRT platescale of 0.5" covered a distance of 179.5km on the Sun.

Connecting the 25 tiles of the full-disk mosaic provides a full-disk magnetogram with a solar disk diameter of approximately 8000 pixels. In addition to the line-of-sight magnetogram we will present full disk mosaics of the magnetic field inclination and azimuth, i.e. the entire photospheric magnetic field vector. Beside the magnetic field maps, we will also show mosaics of the Doppler velocity and the continuum intensity in the 617 nm band.

Simultaneously with SO/PHI the Extreme Ultraviolet Imager (EUI) onboard Solar recorded a full-disk mosaic in the 17.4 nm band. A combination of the SO/PHI and EUI observations provide and unique data product with with an unprecedented view of the Sun.

Primary author: HIRZBERGER, Johann (Max-Planck-Institute für Sonnensystemforschung)

Co-authors: Dr CALCHETTI, Daniele (Max-Planck-Institute für Sonnensystemforschung); Dr VALORI, Gherardo (Max-Planck-Institute für Sonnensystemforschung); Dr LI, Xiaohong (Max-Planck-Institute für Sonnensystemforschung); Prof. SOLANKI, Sami K. (Max-Planck-Institute für Sonnensystemforschung); Dr DEL TORO INIESTA, Jose Carlos (Instituto de Astrofísica de Andalucía); Dr OROZCO SUAREZ, David (Instituto de Astrofísica de Andalucía); Dr GANDORFER, Achim (Max-Planck-Institute für Sonnensystemforschung); Dr WOCH, Joachim (Max-Planck-Institute für Sonnensystemforschung); THE SO/PHI TEAM

Session Classification: Coffee break and poster session 2

Track Classification: Diagnostic tools and numerical methods in solar physics