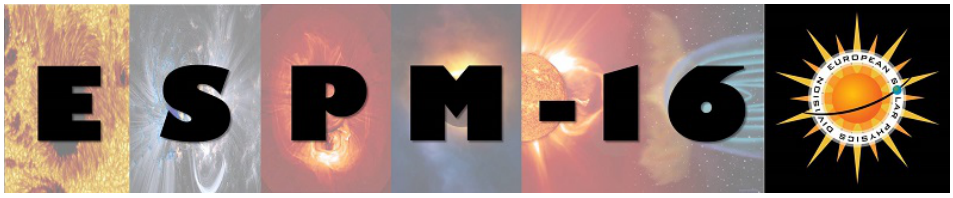

Contribution ID: **539** Type: **Talk**

Direct observational indications of wavelike disturbances in MBP tracks

Tuesday, 7 September 2021 16:30 (15 minutes)

Magnetic Bright Points (MBPs) are small-scale solar atmospheric structures of highly concentrated magnetic fields that can be studied in ever more details thanks to current high precision measurements and a strong theoretical framework greatly supported by Magnetohydrodynamic (MHD) simulations and its analysis. In this study, we consider a large dataset taken from the HINODE mission from two consecutive solar atmospheric layers and analyze how MBPs evolve over time. We developed new computational techniques to track these small-scale structures and reconstruct their behavior during their lifetime. We found direct evidence for MHD wavelike disturbances within the evolution of their movement paths. We interprete these detected signatures within the MBP tracks as Kink and Sausage wave contributions which can effectively transport energy into the higher atmosphere and thus shedding light on how energy can be transferred throughout the solar atmosphere via the help of flux tubes as wave guides.

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