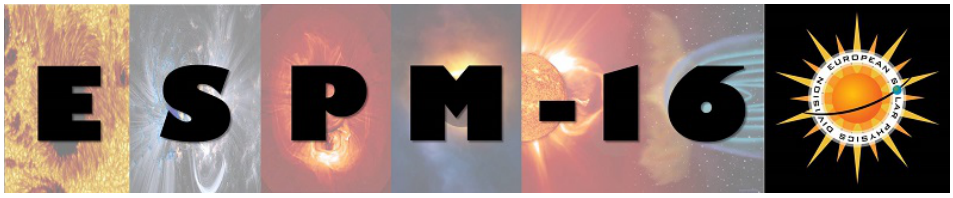

Contribution ID: **449** Type: **Invited talk**

Some basic plasma processes in the solar wind: Turbulence, Magnetic reconnection, Coulomb collisions, and the ambipolar electric field

Thursday, 9 September 2021 16:00 (20 minutes)

In-situ measurements and remote-sensing observations have revealed a rich variety of activities in the solar atmosphere and wind, spanning over a huge amount of time and length scales. In this presentation we will focus on two main basic processes which have an important role in the energetics of the solar wind: (1) the turbulent energy transfer of the electromagnetic and kinetic energy with this correlation to magnetic reconnection processes, (2) and the role of the ambipolar electric field and Coulomb collisions in the acceleration of the solar wind and in shaping the electric velocity distribution functions hence in regulating its heat flux. In this context we will present some results form observations and comparisons with high-resolution fluid and kinetic numerical simulations.

Primary author: LANDI, Simone (Università di Firenze)

Co-authors: VERDINI, Andrea (Università di Firenze); PAPINI, Emanuele (Università di Firenze); BERCIC, Laura (UCL); MATTEINI, Lorenzo (Imperial College); FRANCI, Luca (Queen Mary University); HELLINGER, Petr (Astronomical Institute, CAS); MONTAGUD-CAMPS, Victor (Astronomical Institute, CAS,)

Presenter: LANDI, Simone (Università di Firenze)

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