

SIGNATURES OF RECONNECTION IN THE SOLAR CORONA

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Magnetic reconnection is supposed to play an important role during the initiation of solar flares and CMEs, but also in coronal heating and solar particle acceleration. Unfortunately, current sheets, the sites of magnetic reconnection, are not directly observable at sun. Hence, numerical modelling is desired as an appropriate tool to better understand the formation, properties and behavior of current sheets and, finally, reconnection in the solar atmosphere. We present the results of numerical simulations based on observations of the photospheric magnetic field. We derive the formation of current sheets and the consequent three-dimensional magnetic reconnection in the solar corona. We compare signatures of the latter with those observed in the solar corona.