



Current sheet formation and reconnection in the transition region of the solar atmosphere due to photospheric footpoint motion and pre-existing magnetic field topology

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We investigated the impact of the observed photospheric footpoint motion on the formation of current sheets in transition region and corona as well as the topology of the consequent 3D reconnection. We show that it is necessary to consider both, the action of plasma motion and the pre-existence of a specific magnetic topology for reconnection together to understand where, when and how reconnection can take place in the solar atmosphere.