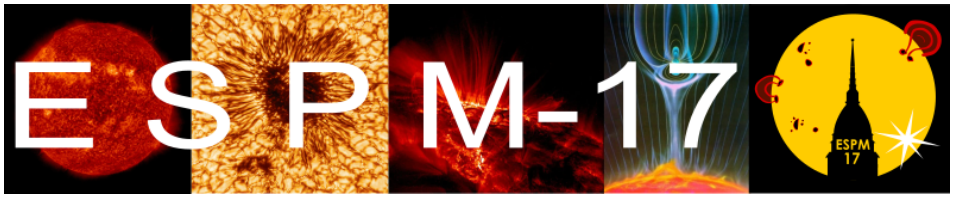

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Oscillatory Reconnection: A Comparison Against Steady-State Solutions

Reconnection is a fundamental process that is at the heart of dynamic events such as solar flares. Despite these phenomena being time-dependent, they are often explained using steady-state theoretical reconnection models such as Sweet-Parker and Petschek. In this presentation I will compare the steady-state models of reconnection with a high-resolution simulation of oscillatory reconnection; a time-dependent, wave-generating form of reconnection. This comparison will include investigations into the reconnection rates, the characteristics of the current sheets and the energy conversion in the models. A shock identification algorithm, ShockID (Snow et al 2021), is also deployed to investigate the myriad of shock phenomena present in the oscillatory reconnection system.

Primary author: TALBOT, Jordan (Northumbria University)

Co-authors: Dr SNOW, Ben (Exeter University); Dr BOTHA, Gert (Northumbria University); Prof. MCLAUGHLIN, James (Northumbria University)

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