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Kelvin-Helmholtz behaviour at the magnetopause: a survey of Double star 1 data.

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The Kelvin Helmholtz Instability can drive waves at the magnetopause. These waves can grow to form rolled up vortices and facilitate transfer of plasma into the magnetosphere. A survey of all Double Star 1 magnetopause crossings has been carried out using a combination of ion and magnetic field measurements. Candidate events were identified by eye by quasi-periodic fluctuations in the transition region between magnetospheric and magnetosheath like plasma accompanied by a persistent northward oriented magnetic field with low shear across the boundary. We present a preliminary characterisation of the crossings including their spatial distribution and whether the waves have grown into vortices. This work is being carried out as part of an International Space Science Institute (ISSI) working group examining multi-spacecraft conjunctions and their utility in examining the behaviour of the dayside magnetopause and flanks under various driving conditions.