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Propagation of waves from the photosphere to the chromosphere in and around plage

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Abstract. MHD waves of all kinds have been observed ubiquitously in the chromosphere for some time. Recent studies have shown that the corona is also permeated with waves. Oscillations with periods longer than the acoustic cut-off were traditionally assumed to be evanescent, but it is now clear that, under some circumstances, such oscillations may propagate from the photosphere into higher layers. A lively discussion currently remains as to what mechanisms and what circumstances allow propagation to occur. In this context, it is important to study wave propagation using high-resolution diagnostics of photospheric and chromospheric Doppler signals. We present the results of such a study and discuss its implications.