P-MODE LEAKAGE AND LYMAN-α INTENSITY

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We present an observational test of the hypothesis that leaking p modes heat the solar chromosphere. The wave energy carried by leaking p modes in magneto-acoustic portals is measured using MOTH and MDI data. We simulate the propagation of these modes into the chromosphere to determine the height where the wave energy is dissipated by shock waves. A statistical approach is then used to check if this heating process could account for the observed solar cycle variability of the intensity in the Lyman-α emission.