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The coincident coherence of extreme Doppler velocity events with P-mode patches in the solar photosphere. RACHEL MCCLURE, University of Colorado at Boulder, MARK RAST, University of Colorado at Boulder, LASP, VALENTIN PILLET, National Solar Observatory — Observations of the solar photosphere show many spatially compact Doppler velocity events with short life spans and extreme values. The striking flashes in the intergranule lanes and the complementary outstanding values in the centers of granules are evident in the spectropolarimetric inversions of SUNRISE IMaX data from the first flight of the SUNRISE balloons in 2009. Using the Fast Fourier Transform, I produce the power spectrum of the spatial wave frequencies and their corresponding frequency in time to create a k-omega diagram which allows distinction of the P-Modes from the granulation. Subsequently, I set a filter velocity and separate the P-Modes from the granulation in each image and test for correlation between the P-Mode Doppler velocities and the granulation velocities at previously identified events. This shows a significant statistical shift in number of events demonstrating some crucial correlation between the granules and the P-Modes.

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