Dynamics of Small Flux Tubes

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Abstract. Using a very narrow band filter (∼25 mÅ) at the Sacramento Peak Vacuum Tower Telescope, we have observed the horizontal and vertical flow in several pores about active regions NOAA 7016 on 1992 January 24 and NOAA 7240 on 1992 July 26. Observations include spectral images at several wavelengths in FeI 5434, MgI 5172, Hα 6563, left and right circular polarization images in FeI 5250 and FeI 5247, and simultaneous white light images, from which the velocities of the region, both parallel and perpendicular to the line-of-sight, and magnetic flux could be derived. We present movies of the flow field as a function of horizontal position and vertical depth in the photosphere, analyze the evolution of the pores and derive some statistical properties of the flows.

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