

**M20c MAGNETIC FIELDS IN INTERGRANULAR LANES OBSERVED
WITH HINODE SOT**

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The SOT Narrowband Filter Imager (NFI) has a "shutterless" mode for obtaining magnetic measurements with high cadence and sensitivity in a tall, thin ("slot") field of view. With simultaneous images in the photospheric G-Band and chromospheric Ca II H, the time-dependence of very fine scale magnetic fields in the intergranular lanes can be studied. The SOT Spectro-Polarimeter is used to provide accurate vector magnetic measurements in an even narrower slot in the center of the field of view. We present the results of a study of quiet sun at disk center with 32 second time resolution in the images, 64 seconds in the NFI magnetograms, and 128 seconds in the SP spectra. Spatial resolution is 0.2 arcseconds in the images, 0.2 - 0.3 arcseconds in the magnetograms, and 0.3 arcseconds in the spectra. The time evolution of the finest resolvable magnetic elements is discussed and compared qualitatively with MHD simulations of solar magneto-convection.