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HMI inversion code: we have continued with the development and testing of the inversion code for the vector field data. We have borrowed Solar-B/Hinode spectropolarimetric observations of Fe I 6302.5 (geff=2.5). This line has the same Zeeman pattern than Fe 6173.3 (geff=2.5). It is therefore ideal to test our inversion code using real data. We plan to compare the results from the inversion of the high spectral resolution data, with the results after applying the HMI filter profiles.

HMI polarimetric calibration: we have considered the variations in the nominal values of the waveplate retardances due to small deviations in the angle of incidence of the light. We have also modified our reduction routines to account for the depolarization introduced by the Vacuum chamber's entrance window. We are currently analyzing new datasets.

Juan Borrero Santiago and Steven Tomczyk, April 16, 2007