

hao.rce_w173.e1d7

weights = [1, 7, 7, 3] ---- chi2-stop=1d-7

2011.10.15_04:00:00
2011.10.15_08:00:00
2011.10.15_12:00:00

hao.rce_w132.e1d6

weights = [1, 3, 3, 2] ---- chi2-stop=1d-6

2011.10.15_04:00:00
2011.10.15_08:00:00
2011.10.15_12:00:00

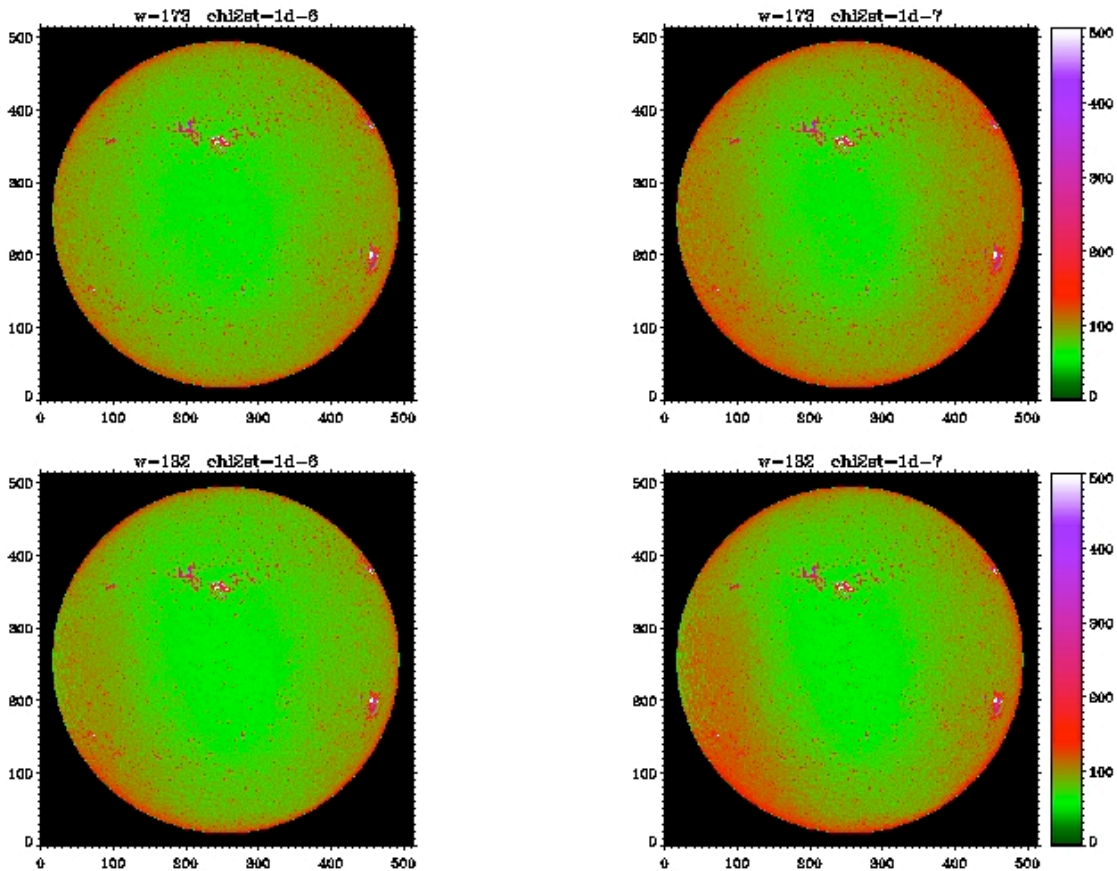
hao.rce_w173.e1d6

weights = [1, 7, 7, 3] ---- chi2-stop=1d-6

2011.10.15_04:00:00
2011.10.15_08:00:00
2011.10.15_12:00:00

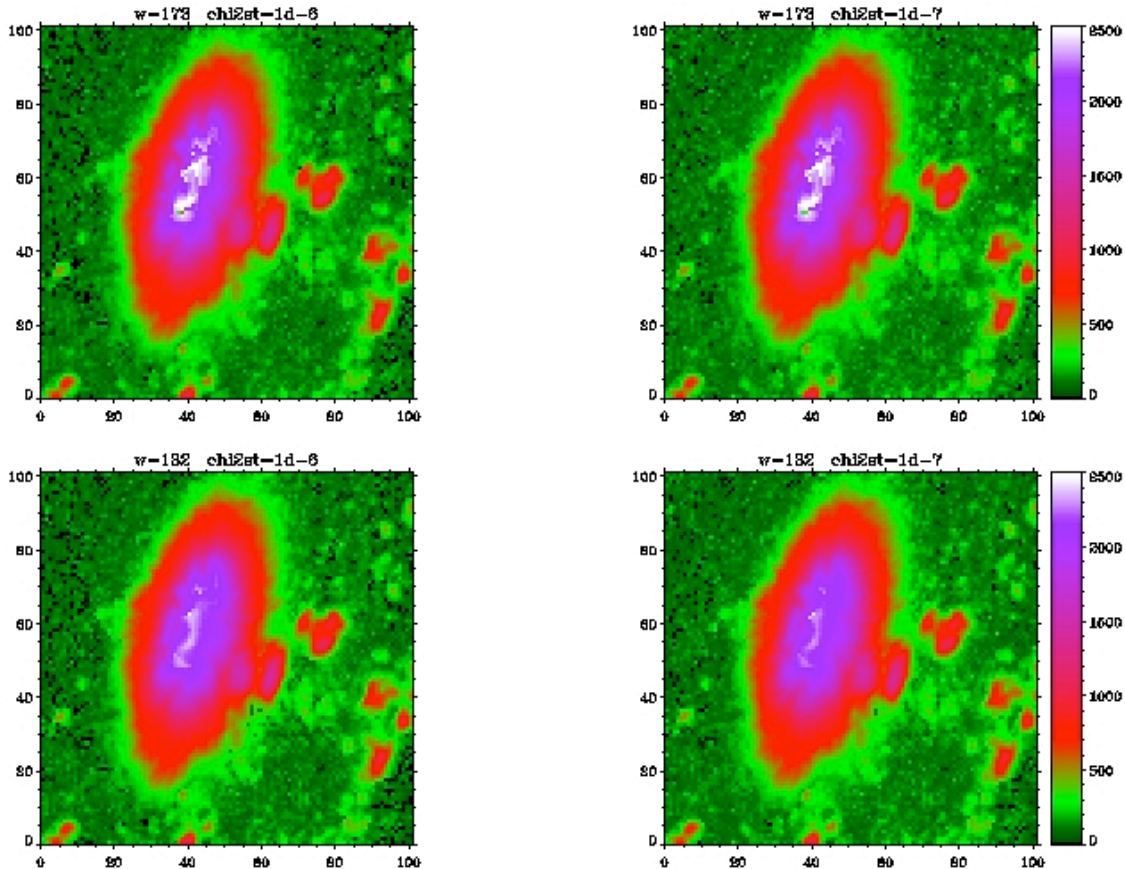
Feb 25, 2011

Here are the results from the tests of weights vs. convergence criteria:



Full disk magnetic field strength saturated at 500 gauss. Top row with old weights (1,7,7,3) and chi2_stop less demanding on the left (1d-6) than on the right (1d-7). Bottom row is the same but for the new weights.

The accentuation of the noise towards the limb seems to be more of an effect of the convergence criteria than the weights. However, in the tests that Keiji did last week, the χ^2_{stop} was set at $1d-6$, and it still showed strong center-to-limb variations of the noise.



These are cutouts of the same images around a sunspot close to the limb. The discontinuities in the umbra are less pronounced for the new weights, regardless of the χ^2_{stop} value. The only difference that the latter makes, is the magnetic field spikes in the quiet Sun.

Temporal variations:

To see the temporal variations, we plot horizontal slices of the magnetic field strength across disk center, for three different times of the Oct 15 dataset (04:00, 08:00 and 12:00). We do this for the 4 combinations of weights and χ^2_{Stop} . This shows that the worse combination of all is with the new weights and the $\chi^2_{\text{stop}}=1d-7$.

