Some stuff about #5

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Last Edited August 28, 2013

1 First set of 1D smoothing

Starting with Figure 1, we compute the column sums and get Figure 2. The red line in Figure 2a is the 1D sum smoothed by 5. Subtracting the two gives Figure 2b which reveals how the solar limbs can dominate the smoothed spectrum. Luckily, these end peaks are consistent in all cases and thus we can just zero out the two lowest peaks.

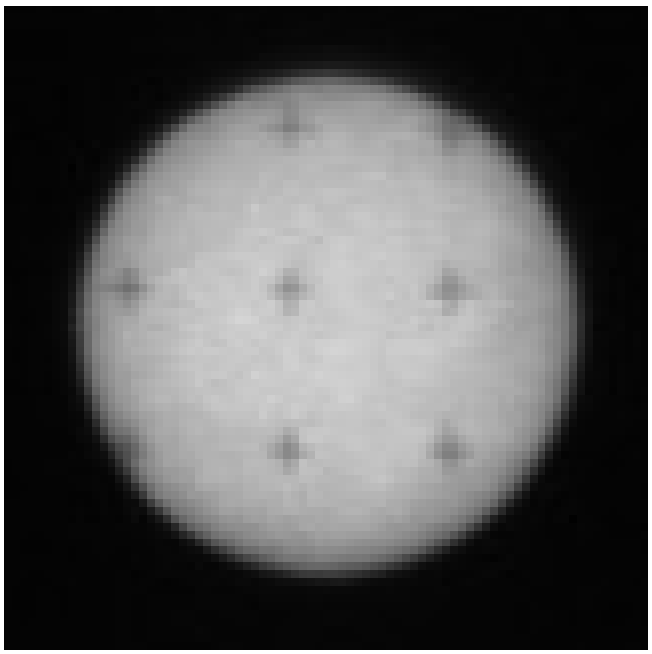
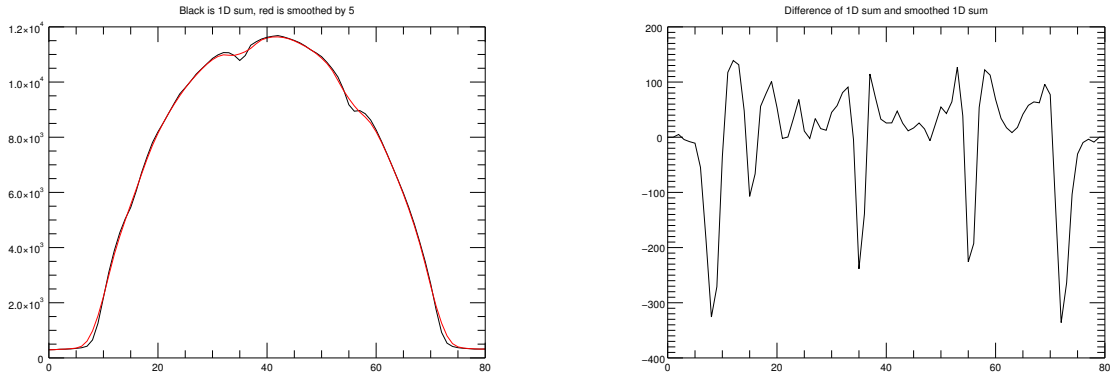


Figure 1 Starting image



(a) (b)

Figure 2

Once we have the column and row postiions of our fiducials we go through each candidate and fall upon this fellow in Figure 3:

We look at the column sum and get Figure 4a. The line in red is the sum smoothed by 5 pixels. Subtracting the two gives us Figure 4b and we can instantly see that the end of Figure 4a is seriosuly messing up our peak detection. the peak should be around index 10 but according to Figure 4b, it's at 4.

I tried looking at the column sum above 1000 and then smoothing but it didn't turn out that much better. I swear it worked before though. :(

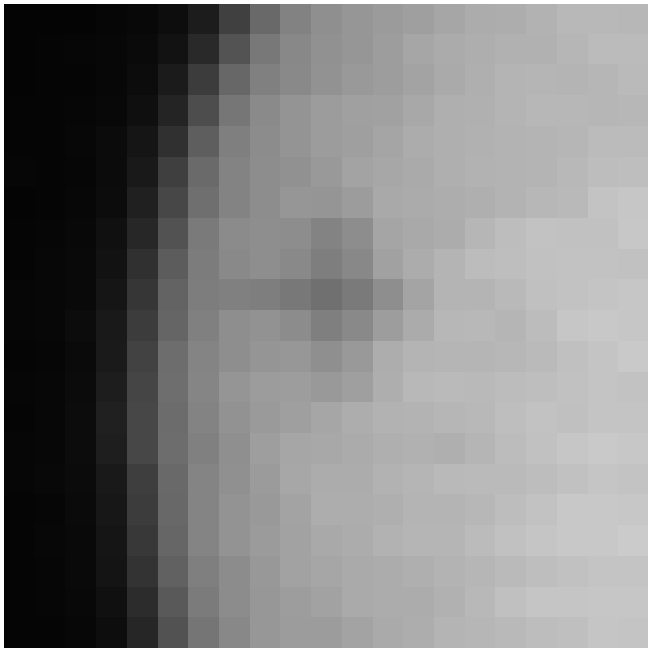
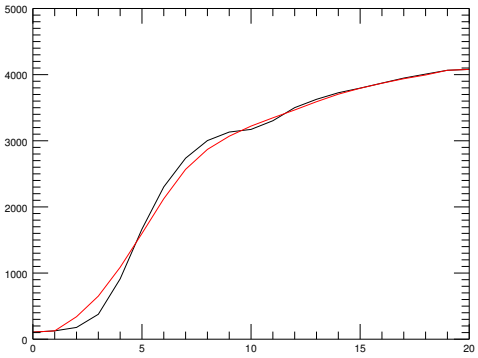
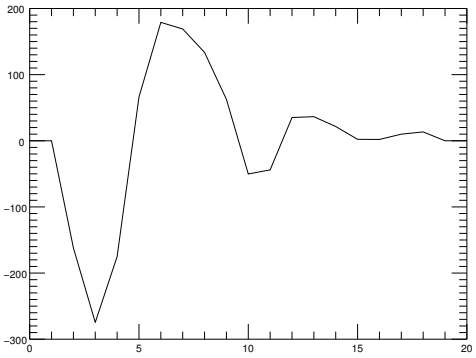


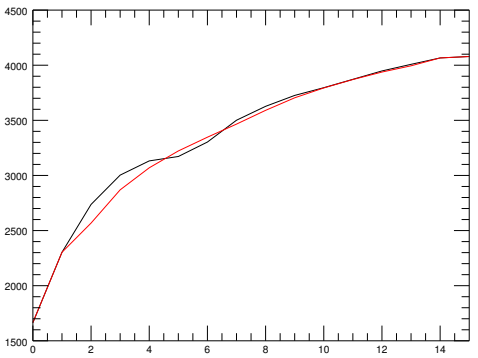
Figure 3 Fiducial candidate

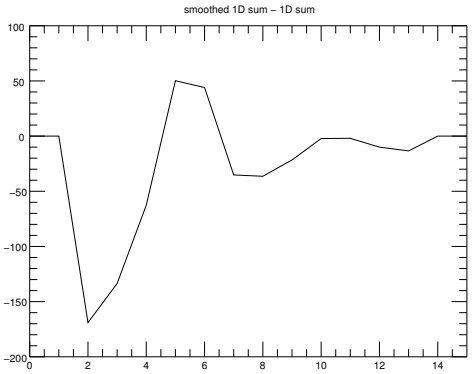




(a) (b)

Figure 4





(a) (b)

Figure 5