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Geoscientific Instrumentation Methods and Data Systems Discussions

Interactive comment on "Automatic segmentation and classification of seven-segment display digits on auroral images" *by* T. Savolainen et al.

Anonymous Referee #2

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General comments: The presented work is of great importance for all optical observatories with data ranging back to the analog age. The presented algorithm for detecting the time stamp of images is very efficient at relative low computational cost. Also the presentation is detailed and the algorithm could possibly be implemented by other groups with similar datasets.

The presentation of the work is however lacking structure. Although the manuscript is organised in sections parts seem to be misplaced from where they should belong. The manuscript would clearly benefit from restructuring and making a sharper separation between problem description and practical implementation.

Specific comments:

Page 3, Line 19: "intensities very on all observable time scales, as can be seen from

figure 7." To my understanding figure 7 does not show any time variations, but variations across the image (spatial).

Page 4, Line 9-12: Converting the image from RGB space to CIE space is a specific step, and not part of the problem description.

Page 4, Line 1-2: The reference to the flow chart seems out of place and would better fit in the Problem description section.

Page 4, equation at the bottom of the page: This equation describes specific criteria which should be part of the analysis section where the three phase process is described in detail.

Page 5, Previous work: Shouldn't this be part of the Introduction?

Page 6, Line 2-4: Should be part of the data description.

Page 7, Line 5: Starting to read the description of Phase II it comes as a surprise to read the summary of Phase I first. This sentence should be removed.

Page 8, Line 11: Again, this should start with what this Phase is about.

Page 10, Line 2: "... seems to capture most of the useful data." Three lines before it is stated that one of the reasons for rejected images is bright aurora. Given the purpose of the dataset maybe one could possibly elaborate some more here.

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