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Geoscientific Instrumentation Methods and Data Systems
Discussions

Interactive comment on "In-flight Calibration of the Cluster/CODIF sensor" *by* L. M. Kistler et al.

Anonymous Referee #1

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The paper by L. M. Kistler et al., presents the methods on how the Cluster/CODIF ion data, which apparently suffer from the decreasing efficiencies of the sensors, can be corrected. This is very useful information for the Cluster data users as well for future missions which certainly has to be recorded for a scientific community. The paper is well written and clearly structured. I would recommend the paper for publication after minor revision. Please see the comments/suggestions below:

Section 2.2, How exactly was done the adjustment technique during sharp transitions: for the event to event by hand or using automatic routine?

What is definition of "smoothest possible"? In Figure 2, one could see quite sharp change in the total pressure at about 10:40?

line 14, "the product of efficiencies shown in Figure 1", I do not see any product of

efficiencies in this Figure.

Maybe to define what is "absolute efficiency" in comparison to "efficiency".

Figure 4, what is FM7?

Section 2.3, Are WHISPER data considered to be a standard without errors?

line 6, Whisper –> WHISPER, to be consistent with other.

Figure 7, what is the purpose of the horizontal line at 0.1?

Section 2.4, "Each anode contributes from 4 to 8 individual points on the pitch angle plot.", Why to 8 points, and not to 16, as for anodes 3 to 6, in Figure 8a?

Figures 9-11, which magnetospheric region was used for this example? How systematically this was done, for each data record? Once per month?

Why doesn't the black fit always correspond to the data, as e.g. for 27665.7 eV/e? I would say the 0 and 180 PAs go rather done than up in data.

Section 3.2, "The calibrations for S/C 3 and S/C 4 were then done by comparison with S/C 1." How? Are they adjusted to be on the same level? At what time intervals? As one cannot do it for each time record.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 3, 221, 2013.