

Interactive comment on “Performance of thermal conductivity probes for planetary applications” by E. S. Hütter and N. I. Kömle

E. S. Hütter and N. I. Kömle

norbert.koemle@oeaw.ac.at

Received and published: 27 March 2012

Response to the review posted by Wojciech Marczewski:

Equations (18) and (20): The origin of Eq. (18) is explained by noting the appropriate reference (Jaeger 1956). The derivation of Eq. (20) from (18) is described in more detail in the Blackwell(1954) and also in Jaeger (1956). Both references are now given in the text. Concerning the evaluation of the integrals containing Bessel-functions we refer to the built-in functions offered in MATLAB. Its integral can either be evaluated numerically or formula (20) can be used for the evaluation.

Equations (28) to (32): In the new text have given some more detailed explanation on the use of these relations for the evaluation of thermal conductivity data. The ad-

C14

vantages and disadvantages of the the linear versus the nonlinear fitting methods are discussed shortly in this section, as proposed.

Revision of Figures: We have revised the Figs 9-11, 13-15, 17-19 following the advice of the referee. They now contain only one panel, showing the temperature versus log(time) plots for the different cases. Figure captions and the discussion of the figures in the text have been adapted accordingly.

Specific comments: The typing errors denoted by the reviewer were corrected in the revised manuscript. Concerning item (4), we believe that our spelling "lies in between ..." is correct.

The revised version of the Manuscript was sent to the Copernicus Editorial Office for further processing.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 2, 23, 2012.

C15