Interactive comment on “Radiometric calibration of the in-flight blackbody calibration system of the GLORIA interferometer” by C. Monte et al.

P. Gege (Referee)
peter.gege@dlr.de

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The manuscript describes the radiometric characterization and calibration of the in-flight calibration system of GLORIA, which is an airborne imaging Fourier Transform spectrometer developed for the monitoring of trace gases and air temperature. It provides a comprehensive overview about the GLORIA sensor and its in-flight calibration system, and it describes in all necessary details the systems and procedures used for on-ground calibration at the Physikalisch-Technische Bundesanstalt (PTB). The scientifically essential aspects of traceability and uncertainty are covered in much detail. The described measurements at PTB proof that the calibration system of GLORIA meets all requirements. The intense work with GLORIA allowed the authors to suggest modifications to its hardware and software that would probably lead to further improvements of the already very good sensor performance. Since accurate and traceable sensor calibration is essential to obtain reliable scientific data, I expect the paper to become the standard reference concerning calibration for all future publications on GLORIA. It should definitively be published in the AMT special issue for GLORIA. There is no need for any modifications to the manuscript. It is simply perfect in all manuscript evaluation criteria.