

Planck HFI lessons learned in systematics and calibration

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The Planck satellite has measured CMB anisotropies on the full sky with unprecedented accuracy allowing pour cent precision on the measurement of cosmological parameters. This accuracy required important mitigation of systematic effects which for some of the dominant effects were not anticipated before launch. In this presentation I will focus on Planck High Frequency Instrument (HFI) systematic effects, their constraints from flight data as well as ground measurement prior to launch. I will present the corrections applied to the data and their limitations. I will show the importance of housekeeping data, of multiple observation redundancies, and of the use of the dipole as calibrator. I will emphasise in this talk the lessons learned for the preparation of future satellite missions and the design of the full analysis chain.

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