

Planck-LFI

Low Frequency Instrument

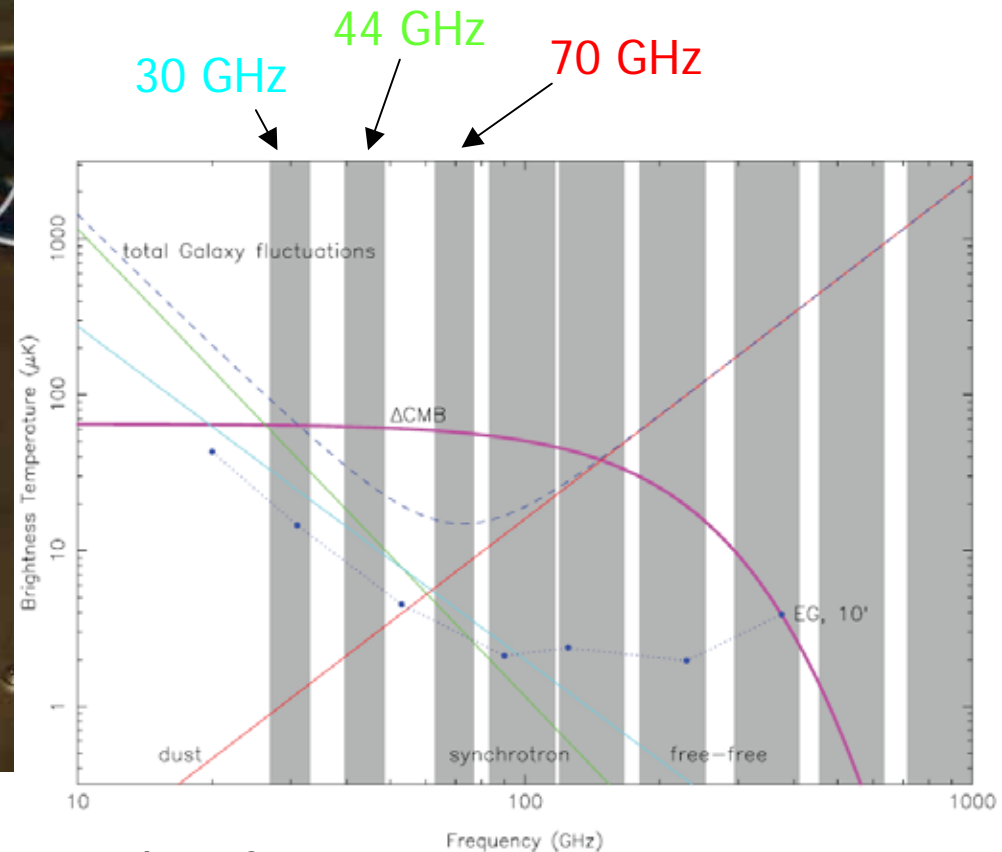
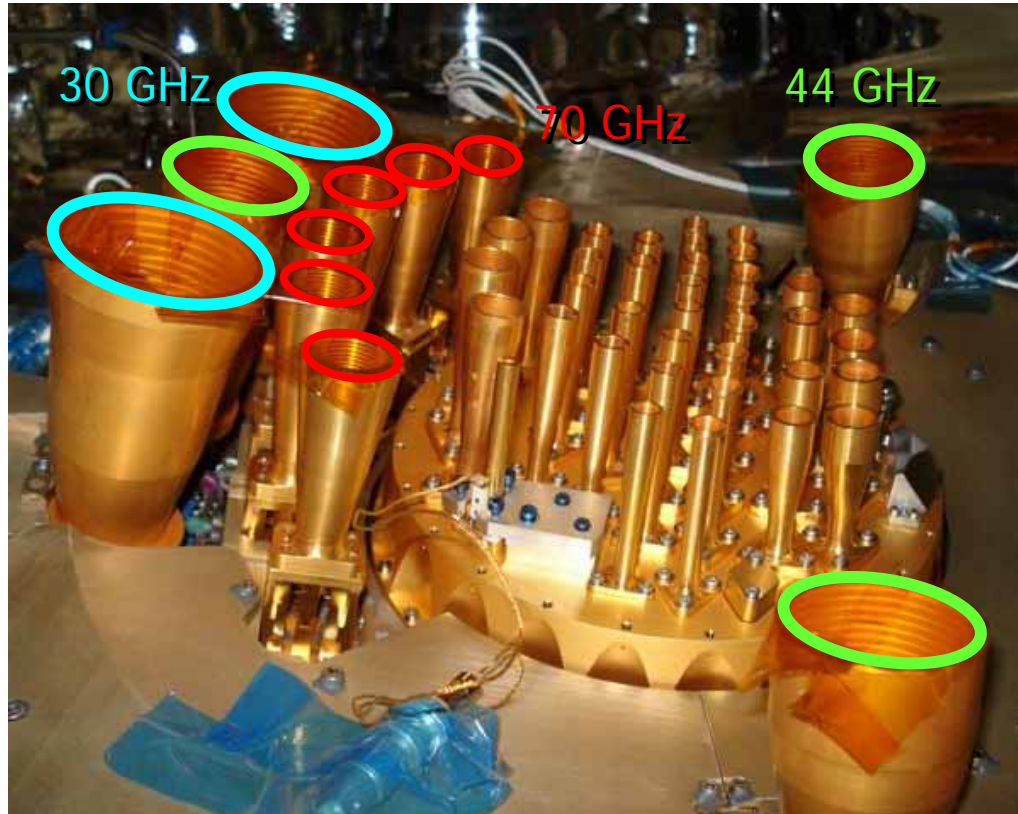
Mapping the first light in the Universe

Marco Bersanelli, University of Milano

Darmstadt

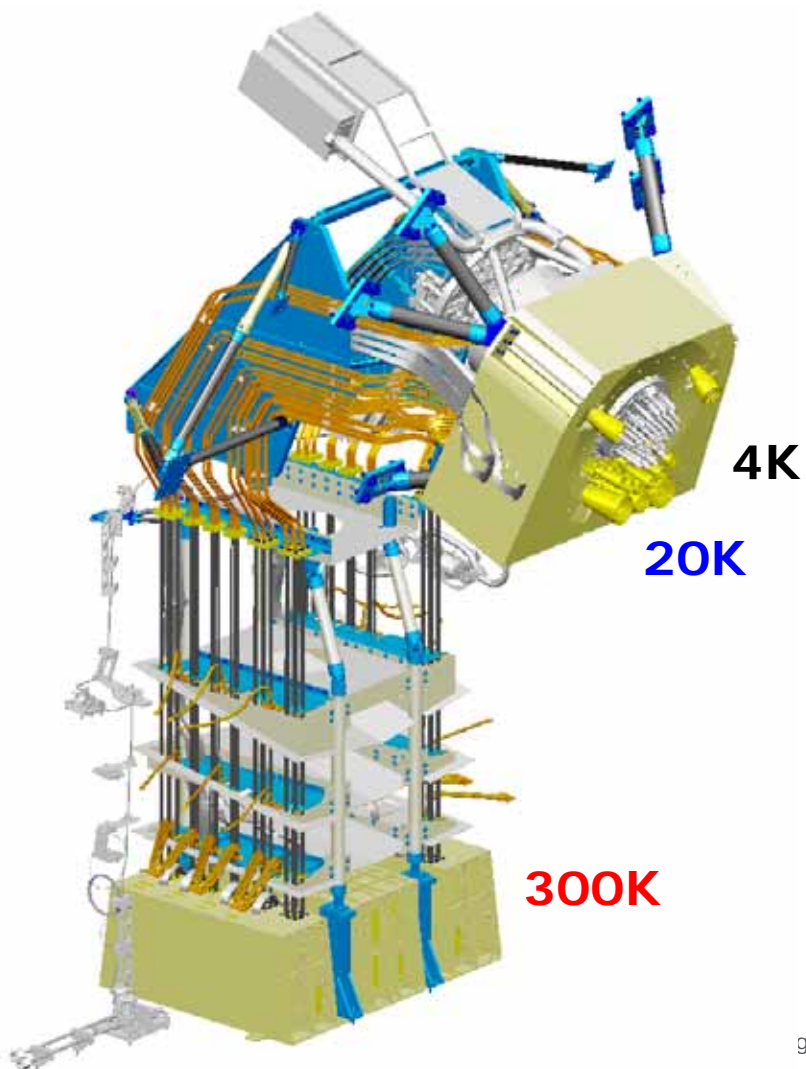
19 March 2009

Planck-LFI: Wavelength range



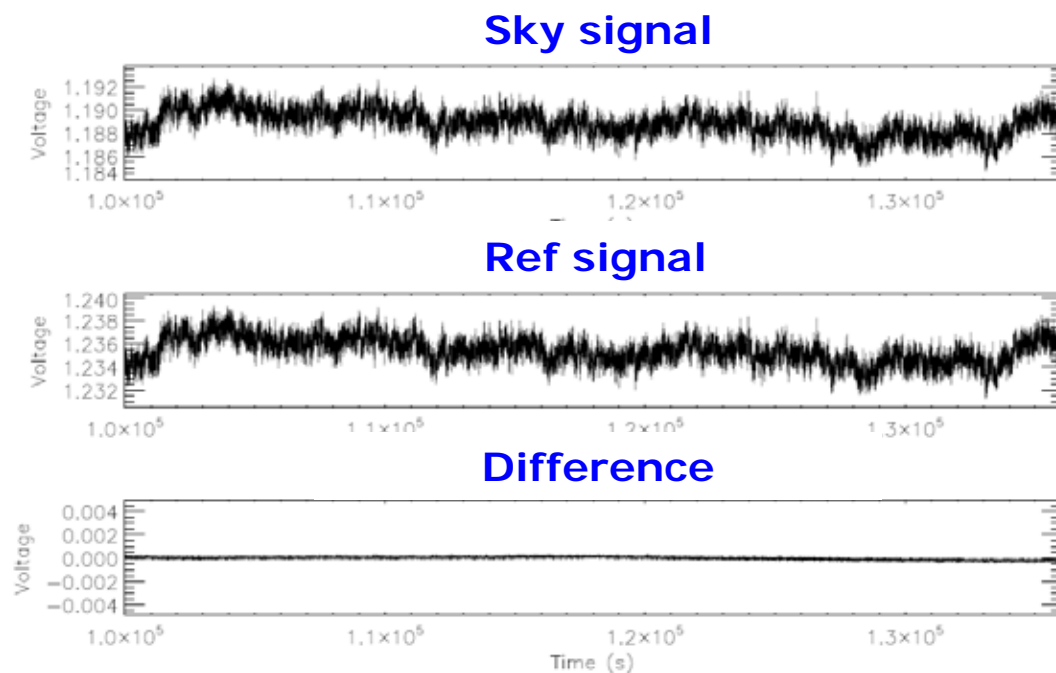
30, 44 GHz: Monitor Galactic emission at low frequency
70 GHz: Cleanest window for CMB

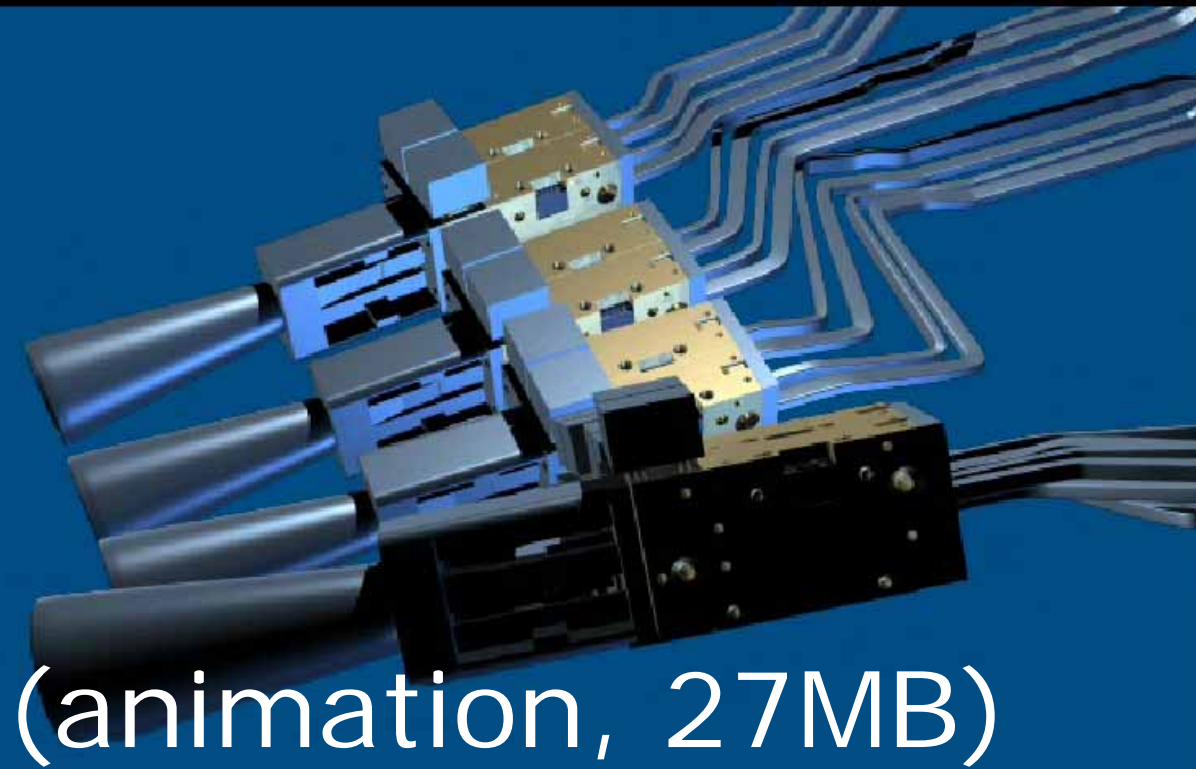
Planck-LFI: Differential Radiometers



Unprecedented performances:

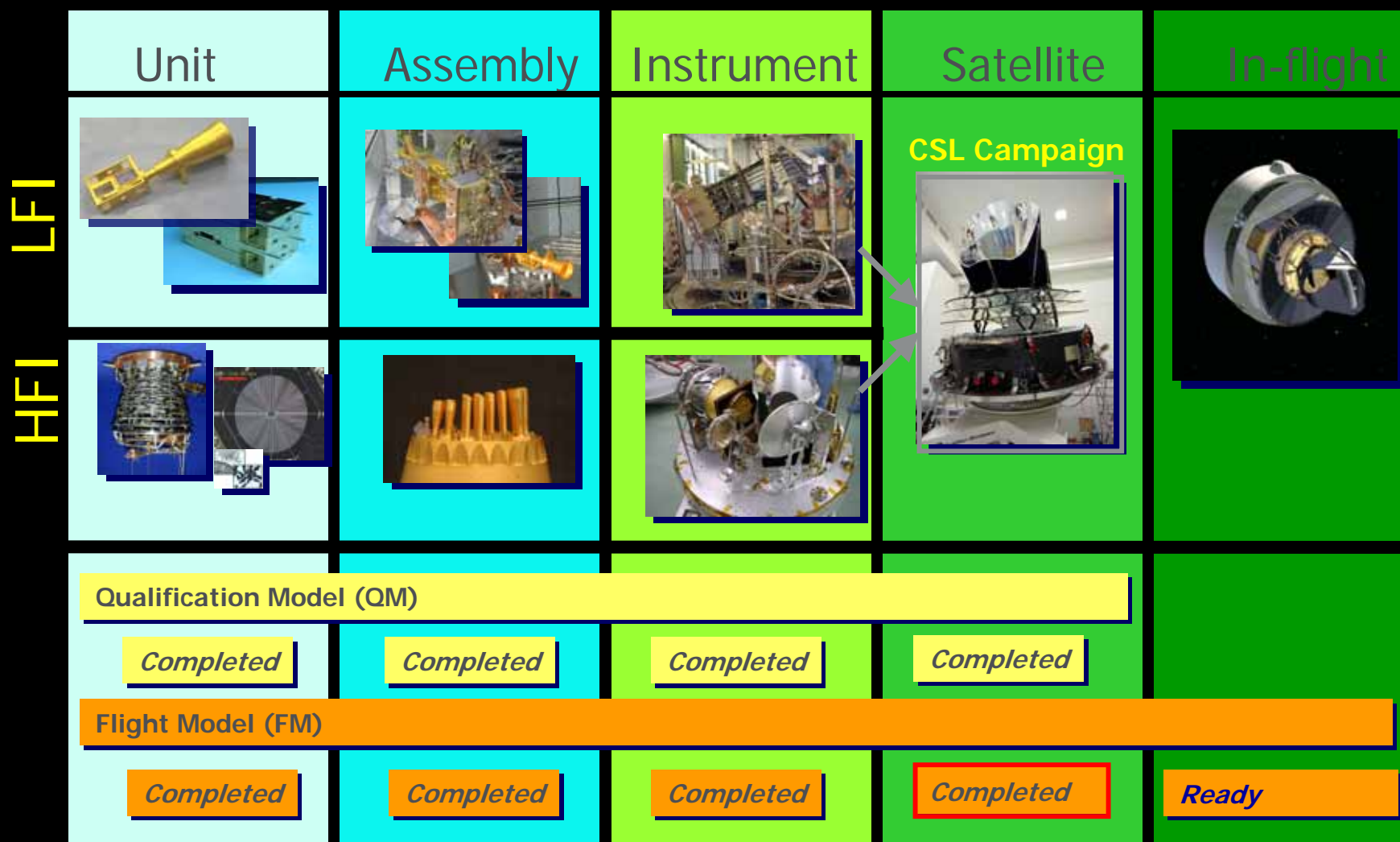
- Sensitivity ($\Delta T/T \sim 3 \times 10^{-6}/\text{pix}$)
- Stability ($f_K \sim 10^{-2} \text{ Hz}$)





(animation, 27MB)

Planck-LFI: Instrument Calibration



← Supported by Data Processing Center → European Space Agency