Dust models compatible with *Planck* intensity and polarization data in translucent lines of sight

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CMB science

Planck High-Frequency Instrument

- Full-sky maps of (I, Q, U) at 5' of resolution. Effective resolution: 1° at high latitude.
- 4 polarized channels from 850 μ m to 3 mm.

Planck Int Results XIX, XXI, and XXIX (2015, 2016)

- \rightarrow up to 20% of polarization fraction P/I @ 850µm, much larger than expected from dust models (10-14%).
- Dust emission is a factor 2 higher than predicted by dust models based on extinction data. This is observed everywhere, both in total and polarized light.

This raises two questions :

1) Is it a problem for dust models, or for alignment theories ?

2) How can we adapt existing dust models ?



Come to poster #77 to discuss the interpretations of Planck data !











