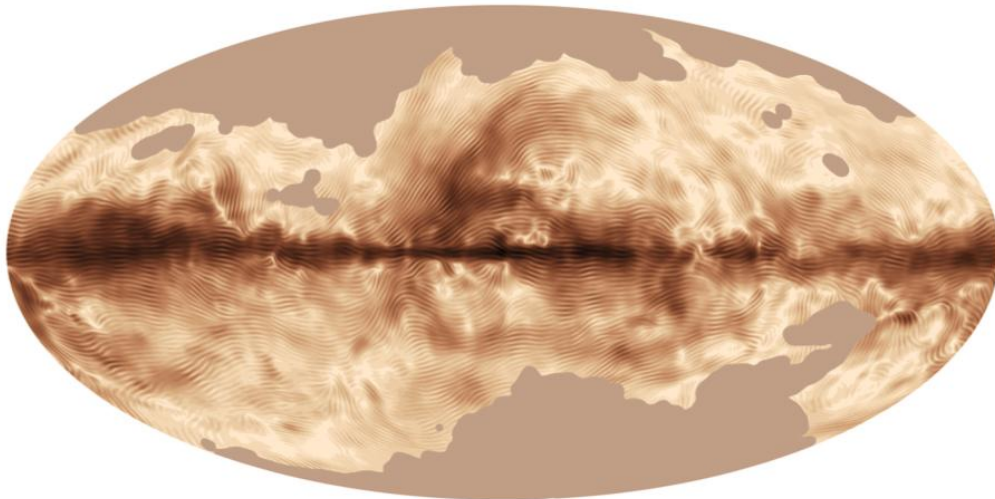


# Polarized thermal dust emission from *Planck*.

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The *Planck* satellite has mapped the polarized microwave and submillimetre sky (from 30 to 353 GHz) with unprecedented sensitivity and angular resolution. This wealth of data sheds new light on the polarization of Galactic foregrounds, especially that of thermal emission from aligned aspherical dust grains, which dominates the polarized cosmic microwave background (CMB) at the high end of the *Planck* frequency range. I will present the first results from the current analysis of *Planck* polarization data related to thermal dust emission. The *Planck* polarization data is scheduled to be made publically available in the fall of 2014.



Galactic polarization at 353 GHz (credits : ESA and the *Planck* collaboration)

## Références

- [1] Planck intermediate results. XIX. An overview of the polarized thermal emission from Galactic dust, arXiv:astro-ph 1405.0871
- [2] Planck intermediate results. XX. Comparison of polarized thermal emission from Galactic dust with simulations of MHD turbulence, arXiv:astro-ph 1405.0872
- [3] Planck intermediate results. XXI. Comparison of polarized thermal emission from Galactic dust at 353 GHz with optical interstellar polarization, arXiv:astro-ph 1405.0873
- [4] Planck intermediate results. XXII. Frequency dependence of thermal emission from Galactic dust in intensity and polarization, arXiv:astro-ph 1405.0874