The Planck Legacy Archive: data and tools to mine Galactic dust and other treasures

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The ESA Planck space telescope has recently (March 2013) released its first major dataset. It includes cosmological (Cosmic Microwave Background full-sky map), Extragalactic and Galactic science data. Notably, Galactic dust full-sky maps are present together with dust opacity maps. Full-sky intensity maps are released at nine frequencies (30 GHz to 857 GHz) with unprecedented angular resolution (4' for the High-Frequency Instrument dust channels) and sensitivity.

In this presentation, I will explain what is in the data and how to process them from the Planck Legacy Archive user interface to get the local maps of users’ favorite molecular clouds or external galaxies.

I will also present the broader context of the Planck archive and its future developments, in the context of interstellar medium studies and cosmology.