



M. López-Caniego¹, J. Tauber², M. Fernández-Barreiro¹, D. Baines¹, B. Merin¹, C. Arviset¹

¹ Data and Engineering Division, Operations Department, European Space Astronomy Center (ESAC)
² Science Support Office, European Space Research and Technology Center (ESTEC)

The Planck Legacy Archive: latest products and tools

esa



EUROPEAN SPACE AGENCY SCIENCE & TECHNOLOGY

SIGN IN

Planck Legacy Archive

WELCOME TO THE PLANCK LEGACY ARCHIVE

Quick product search by file name

LATEST NEWS

Planck final release: 17 July 15:00 CEST
ESA and the Planck Collaboration will release a new and improved version of the data acquired by Planck which constitutes the final official release. New results based on this data are described in a set of papers which will be made public the same day. The release is scheduled on 17 July 15:00 CEST

2018-07-17 PSO

PLANCK LEGACY ARCHIVE CONTENTS

- MAPS
- CATALOGUES
- COSMOLOGY
- TIMELINES AND RINGS
- PLANCK SKY MODEL
- SOFTWARE, BEAMS AND INSTRUMENT MODEL
- OPERATIONAL DATA

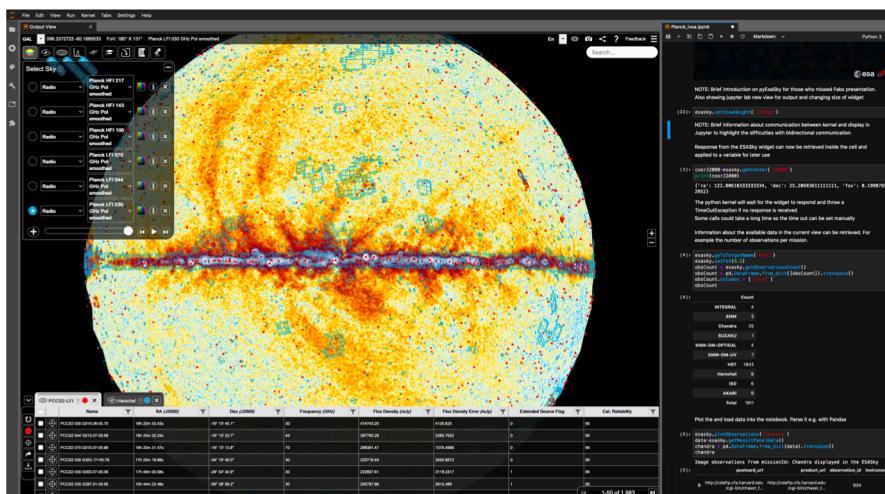
USEFUL INFORMATION

- EXPLANATORY SUPPLEMENT
- EXTERNAL DATA AND SOFTWARE
- COLLABORATION PAPERS
- USE OF PLANCK DATA
- UPDATE HISTORY
- PLANCK SCIENCE TEAM HOME
- HELPDESK AND USER FORUM

COPYRIGHT © EUROPEAN SPACE AGENCY. ALL RIGHTS RESERVED (V-3.5-dev-snapshot)

Multiple tools can be found throughout the PLA to exploit Planck data:

- Map operations:** Component subtraction, Unit Conversion, Bandpass Transformation, Colour Corr. and Masking.
- Map-making from timelines and rings:** custom flagging of data, for example exposing Solar System Objects.
- Simple component separation and Internal Linear Combination tools.**
- Correction operations:** bandpass leakage and gain template removal.
- Planck Sky Model Simulation Tool** interface including the most recent models based on 2018 PR3 data.



Planck Sky Model interface

STEP 1: SKY MODEL

Generate New Sky
 Use existing Sky Model

GLOBAL PARAMETERS

Fields: TP
HEALPix Nside: 1024
Advanced options

COSMOLOGICAL PARAMETERS

Select from a predefined set of cosmological parameters: 2018_TT_TE_EE_lowE_lensing

Independent Parameters: H_{100} : 0.6736, r_s : 0.9649, τ_{reion} : 0.0544, A : 0.00000002130, ω_m : 0.3153, ω_b : 0.04930169

Extension Parameters

MODEL SELECTION

CMB SZ emission Galactic emission PS emission FIR emission

Galactic Model:
 Data-based
 Model-based
Advanced options

STEP 2: SKY OBSERVATION (OPTIONAL)

Perform Sky Observation

INSTRUMENTS

Instrument: Custom
Name: INSTRUMENT_1
Bandshape: DIRAC
BeamType: Gaussian
Stokes: TQU
Observation Units: K_RJ

CO-ADDITION RULES

Define the co-addition rules:
 All (everything, including noise)
 All Sky (all sky components, but not noise)
 Custom selection

OUTPUT

Choose:
 All output files
 Observations only
 Configuration file only