IXPE XRT CALDB Changelog for version date 2023-12-01

1. Updated files in the XRT branch for the effective area function for the mirror associated with each detector unit.
    a. These updated files reflect changes to the model parameters for the bulk density, surface roughness, and Ni:Co ratio of the mirrors. These model changes give better agreement with the ground calibration data.
    b. Naming scheme: “data/ixpe/xrt/bcf/eaf/ixpe_mN_20210103_eaf_03.fits”

IXPE GDB CALDB Changelog for version date 2024-01-25

1. For all following file naming schemes, the following conventions are use:
    a. N is the 1-digit ID of the detector unit (1, 2, 3, and occasionally 4 for the spare)
    b. YYYYMMDD is the 4-digit year, 2-digit month and 2-digit day of month of the effective data of the file (e.g., 20230101 for Jan 1, 2023).
    c. VV is the two digit version of the file (e.g., 01).
    d. WSCHEME is the text indicator of the polarization weighting scheme (“alpha075_” for NEFF weighting, “alpha075simp_” for simple weighting, and “” (blank) for no weighting).
    e. WEIGHT is the text indicator for whether the polarization scheme weighting indicator (“alpha075_” for weighted and “” (blank) for unweighted).
2. NOTE: We are no longer providing updates to the on-axis “ARF” and “MRF” files. Instead, we recommend using ixpecalcarf to calculate these files for each individual observation.
3. Added files to the GPD branch for the GRAY filter transmission for each detector unit.
    a. Naming scheme: data/ixpe/gpd/bcf/grfilt/ixpe_dN_20170101_grfilt_01.fits
4. Added files to the GPD branch for the quantum efficiency of each detector unit calculated.
    a. Starting with the launch date (20211209), a new set of files is calculated at 6-month intervals to reflect the effects of the decreasing pressure of the detectors on the quantum efficiency.
    b. Each date-based set of files consists of nine files, for each combination of detector and polarization weighting method.
    c. Naming scheme: “data/ixpe/gpd/bcv/qe/ixpe_dN_YYYYMMDD_qe_WSCHEME01.fits”
5. Added files to the GPD branch for the UV filter transmission of each detector unit.
    a. Naming scheme: “data/ixpe/gpd/bcf/uvfilt/ixpe_dN_20170101_uvfilt_01.fits”
6. Updated files in the GPD branch for the on-axis ancillary response function for each detector unit and each weighting method to account for use of no GRAY filter.
    a. Naming scheme: “data/ixpe/gpd/cpf/arf/ixpe_dN_20170101_WSCHEME_VV.arf
7. Added files to the GPD branch for the modulation factor of each detector unit calculated.
    a. Starting with the launch date (20211209), a new set of files is calculated at 6-month intervals to reflect the effects of the decreasing pressure of the detectors on the modulation factor.
    b. Each date-based set of files consists of six files, for each combination of detector and polarization weighting indicator.
    c. Naming scheme: “data/ixpe/gpd/bcv/qe/ixpe_dN_YYYYMMDD_mfact_WEIGHT01.fits”

8. Updated files in the GPD branch for the on-axis modulation response function to account for the optional use of the GRAY filter.
    a. Each version set of files consists of 9 files for each for each combination of detector unit and weighting method
    b. Naming scheme: “data/ixpe/gpd/cpf/mrf/ixpe_dN_20170101_WSCHEME_VV.mrf