

APERTIF

Imaging survey data available

The first data release from the Apertif imaging surveys are available, covering the first year of survey observations.

Apertif is phased-array feed for the Westerbork Synthesis Radio Telescope, providing 40 instantaneous beams and greatly increasing the field of view. This enabled large-scale imaging and time-domain surveys to be carried out from 1 July 2019 through 28 February 2022. The imaging surveys cover 2250 square degrees, with a subset of 130 square degrees at a medium-deep depth with up to ten times the observing time.

The first imaging data release contains radio continuum images, polarization images and cubes, and (dirty) spectral line cubes, with associated dirty beams, from the first year of survey observations (Adams+ 2022). The radio continuum images are required to pass quality assurance for data products to be released. A radio continuum source catalog is also available (Kutkin+ 2022).

The next Apertif imaging data release will focus on high quality continuum mosaics and associated source catalogs covering the LOFAR deep fields.

Visit <https://vo.astron.nl> to access the available data.



Key data release facts:

Sky coverage	970 sq degrees
Effective bandwidth	137.5 MHz
Central frequency	1361.25 MHz
Resolution	11" × 11" / sin(δ)
Continuum sensitivity	41 μ Jy/beam
Polarization sensitivity	37 μ Jy/beam
Spectral line sensitivity	1.6 mJy/beam
Continuum sources	249,672

