

Science Verification call for Proposals: MATISSE at VLT/ATs

MATISSE is the newly commissioned mid-infrared 4-Telescopes beam combiner for the Very Large Telescope Interferometer. **ESO will offer MATISSE for Science Verification on 10 nights in late April 2019, using the auxiliary telescopes.** While MATISSE is already offered in P103 (starting April 1st 2019), the science verification (SV) aims at demonstrating:

- The imaging capabilities of MATISSE
- The updated sensitivity limits (see end of this document), based on the latest progresses in commissioning the instrument and developing the data reduction software.

All astronomers are invited to participate in this opportunity to demonstrate the potential of MATISSE. Proposals will be reviewed by an internal panel and allocated time on the basis of scientific merit and feasibility, as well as in the demonstrated ability of the Principle Investigators to deliver results on a timely basis. Proposals will be screened against currently accepted proposals, including guaranteed time observations[1], to avoid duplication. Re-submission of rejected proposals will be evaluated on a case-by-case basis.

Please read the [VLT](#)[2], and [MATISSE](#)[3] documentation established for CfP103 carefully. The observations will be conducted in Service Mode, and all SV data are made public worldwide immediately after passing the usual quality control checks. The latest version of the MATISSE data reduction pipeline will be available for reduction of the SV data and the SV team will try - on a best efforts basis - to provide pipeline-reduced data to all SV PIs. The reduced data will be made public as well.

Please use the special LaTeX template that can be downloaded from the MATISSE science verification web site: <http://www.eso.org/sci/activities/vltsv/matissesv.html> Proposals may also be prepared using any suitable text editor following the guidelines of the LaTeX template, but please send us only the pdf output and please do not send finding charts at this time. The SV team will request these in due course.

**Applications should be sent by EMAIL to matissesv@eso.org not later than
Monday, January 21st 2019, 18:00 CET**

Limiting magnitudes for image reconstruction (typical 10% precision in visibility and few degrees in CP):

- L band coherent flux > 3 Jy for a 80 m baseline
- N band coherent flux > 20 Jy for a 80 m baseline

Limiting magnitudes for model fitting:

- L band coherent flux > 1 Jy
- N band coherent flux > 10 Jy

[1] <https://www.eso.org/sci/observing/teles-alloc/gto/103.html>

[2] https://www.eso.org/sci/facilities/paranal/telescopes/vlti/documents/VLT-MAN-ESO-15000-4552_v103.pdf

[3] <http://www.eso.org/sci/facilities/paranal/instruments/matisse.html>