



# Southern Astrophysical Research Telescope

Brazil – NOAO – UNC – MSU - Chile



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## SAM-FP

Updated 23 Jul 2020, C. Briceno

SAM-FP is considered to be a Restricted User Instrument. **The SAM-FP is not available for the 2020B semester.**

**Users interested in using the SAM F-P module should get in touch with the instrument's P.I., Dra. Cláudia Mendes de Oliveira** (see contact info below). Because of its very specialized nature, SAM-FP runs have been handled by the instrument team, who carry out the observations and reduce the data. The data-cubes provided to users are already corrected for bias and flat. The phase-correction is also applied by the team. Wavelength calibration and astrometric calibration are done together with the astronomer.

## Past use

SOAR scheduled four nights of Early Science observations with SAM-FP from Feb 16<sup>th</sup> to Feb 19<sup>nd</sup>, 2018. As reference, the 2016 call for proposals is linked [here](#) [1], describing the technical capabilities. The publication regarding the SAM F-P is [Oliveira et al 2017](#) [2].

Targets submitted to the SAM F-P team should follow [SOAR's standard format](#) [3] or the following format (no other format will be accepted):

```
# OBJECT      RAJ2000    DECJ2000
AB01_XXXXX   HH:MM:SS  +DD:MM:SS
AB02_XXXXX   HH:MM:SS  +DD:MM:SS
...
AB0N_XXXXX   HH:MM:SS  +DD:MM:SS
were
# A : First letter of user's last name
# B : First letter of user's first name
# N : Object priority number
```

- Users need to make sure their targets lists are sorted by priority.

## Data Policy

This instrument has been developed with the team's resources and the Fabry-Perot mode is a restricted-use instrument on SOAR. As a recognition of the effort made by the team to make this instrument available to the community and to make the data ready for the user to do science with it, it is requested that the three team members be co-authors of any published work that may result from the observations

## Contact

The contact e-mail are:

- Claudia Mendes de Oliveira - claudia.oliveira at iag.usp.br
- Bruno C. Quint - bquint at gemini.edu
- Philippe Amram - philippe.amram at lam.fr

## More in numbers

- Fabry-Perot [\[link\]](#) [4]
- Filters for SAM-FP [\[link\]](#) [5]

## Fabry-Perot in numbers

*Updated 23 Jul 2020, C. Briceno*

This page contains information about the two Fabry-Perot units used in the SAM-FP mode. (Note that the Fabry-Perot module in SAM is not available for the 2020B semester).

## Low-Resolution Fabry-Perot (LRFP)

Table 1 - LRFP in numbers

N  
o  
r  
m  
 $a$   
 $4^4$   
 $4^4$   
 $\mu_a$   
 $m_p$   
s  
i  
z  
e

N  
o  
m  
i  
n  
a  
l  
 $1^0$   
 $3^r$   
 $4^d$   
e  
r  
f  
o  
r  
H  
a

N  
o  
m  
i  
n  
a  
l  
F  
2r  
2e  
4e  
6-  
kS  
öp  
M  
5e  
Åc  
5  
-t  
1r  
a  
l  
-  
R  
a  
n  
g  
e

F  
r  
e  
3e  
4-  
5-  
S  
.p  
9e  
9c  
±t  
ōr  
.a  
1l  
4-  
b  
c  
R  
a  
v  
n  
g  
e

0  
. 1S  
4a  
1m  
5p  
A|  
. i  
b n  
c g  
v  
.

1

F  
4i  
1n  
. e  
7s  
2s  
e

N  
u  
m  
b  
e  
r  
o  
8f  
4c  
h  
a  
n  
n  
e  
l  
s

F  
u  
l  
l  
-  
5  
%

## High-Resolution Fabry-Perot (HRFP)

Table 2 - HRFP in numbers

N  
o  
r  
m  
2a  
0l  
0g  
 $\mu$ a  
mp  
s  
i  
z  
e

N  
o  
m  
i  
n  
a  
l  
0  
9  
r  
·  
d  
4  
8  
r  
f  
o  
r  
H  
a

N  
o  
m  
i  
n  
a  
l  
4F  
9r  
1e  
1e  
9-  
6S  
Kp  
me  
Ac  
st  
·r  
1a  
l  
-R  
a  
n  
g  
e

F  
r  
e  
e  
-

3S

5p

0e

.c

2t

4r

ba

cl

v-

R

a

n

g

e

0

.

0S

3a

0m

8p

Ål

.i

b

n

c

g

v

1

F

1i

6n

.e

4s

5s

e

N  
u  
m  
b  
e  
r  
o  
3f  
6c  
h  
a  
n  
n  
e  
l  
s  
F  
u  
l  
l  
2  
S  
H  
A  
X  
i  
m  
u  
m

## Filters for SAM-FP

Here is the list of filters available to use with one of the two Fabry-Perots. The filters have to be specified in the Instrument Setup Form ideally one week before the observing run since they may be in use in another instrument or even telescope.

В Т Е Р В А Н Д А  
17

В Т Б М О О С А  
20

В Т Б М О О С А  
20

В Т Б М О О С А  
20

B  
T  
F  
B  
S  
A  
/ 3  
8  
S  
A  
M  
B  
S  
A  
o  
a  
d  
S  
A  
M  
I  
B  
S  
A  
B  
r  
o  
a  
d

S  
A  
M  
I  
[  
S  
Z  
B  
A  
a  
r  
r  
o  
w

S  
A  
M  
I  
[  
S  
Z  
B  
A  
e  
d  
i  
u  
m

S  
A  
M  
I  
[  
S  
Z  
B  
A  
a  
r  
r  
o  
w

We have also filters from LAM (Laboratoire d'Astrophysique du Marseille, France) and we may add information about these filters very soon.

The astronomer can also request any other filter listed in the [Filters Available at SOAR](#) [6] page. CTIO filters are also available. The main constrain is that the filters may be 3 x 3 inches squared or round with 3 inches diameter.

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**Source URL:** <http://www.ctio.noirlab.edu/soar/content/sam-fp>

## Links

- [1] [http://www.ctio.noirlab.edu/soar/sites/default/files/SAM-FP\\_call\\_rev.pdf](http://www.ctio.noirlab.edu/soar/sites/default/files/SAM-FP_call_rev.pdf)
- [2]  
[https://watermark.silverchair.com/stx976.pdf?token=AQECAHi208BE49Ooan9khhW\\_Ercy7Dm3ZL\\_9Cf3qfKAc485ysgAAa0wggGpBqkqhkiG9w0BBwagggGaMIIBIglBADCCAY8GCSqGSIB3DQEHTAeBglghkgBZQMEAS4wEQQMx6HNNHeu5E902DyFAgEQgIIBYAT1jzOwSq4VGjV0lpCcwhL3WGdJDN0g43EHnnNKIZGjH5UQDhv4zM5npXHzEmujnT6rBYLALC09A6Ds-4YJeZJ35IkLqU9Sley0TTqVJASVxFITSZEozcr6bx-iqG3SgG2Jqea4vEUHxZ3uB2UbrhMORXSvSjFgkXOmjy-9iS-9hwlr2LXCOy4gr\\_ppWL7nAqASqpBJlar\\_ebThwz5pdBfQOf2q1PNeIxKw4EygwCtD6z9d1hMhQs1TZ4IMDj5n0nyNGtdcw6h1sVeIHHdGnaj3yWN2KrnKal-vTvls7xrjZ21xVEGdCgKCC36vGCwcyifyOzle5UwwWEmGHug8v2fflxGm8JZJ09YTpTEApZ6gY8Oot8B26O9O3L9BrBYdcFj\\_iwcMXcAXQawd7Dx8ff9FUPxrYgWOZ5OfQ3CecNz3ylq6zFEqO9mTwSRnzOsz-oPdGvAn000VKTyNNOGDU](https://watermark.silverchair.com/stx976.pdf?token=AQECAHi208BE49Ooan9khhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAa0wggGpBqkqhkiG9w0BBwagggGaMIIBIglBADCCAY8GCSqGSIB3DQEHTAeBglghkgBZQMEAS4wEQQMx6HNNHeu5E902DyFAgEQgIIBYAT1jzOwSq4VGjV0lpCcwhL3WGdJDN0g43EHnnNKIZGjH5UQDhv4zM5npXHzEmujnT6rBYLALC09A6Ds-4YJeZJ35IkLqU9Sley0TTqVJASVxFITSZEozcr6bx-iqG3SgG2Jqea4vEUHxZ3uB2UbrhMORXSvSjFgkXOmjy-9iS-9hwlr2LXCOy4gr_ppWL7nAqASqpBJlar_ebThwz5pdBfQOf2q1PNeIxKw4EygwCtD6z9d1hMhQs1TZ4IMDj5n0nyNGtdcw6h1sVeIHHdGnaj3yWN2KrnKal-vTvls7xrjZ21xVEGdCgKCC36vGCwcyifyOzle5UwwWEmGHug8v2fflxGm8JZJ09YTpTEApZ6gY8Oot8B26O9O3L9BrBYdcFj_iwcMXcAXQawd7Dx8ff9FUPxrYgWOZ5OfQ3CecNz3ylq6zFEqO9mTwSRnzOsz-oPdGvAn000VKTyNNOGDU)
- [3] <http://www.ctio.noirlab.edu/soar/content/creating-targets-lists-soar>
- [4] <http://www.ctio.noirlab.edu/soar/content/fabry-perot-numbers>
- [5] <http://www.ctio.noirlab.edu/soar/content/filters-sam-fp>
- [6] <http://www.ctio.noirlab.edu/soar/content/filters-available-soar>