



Credit: Yuri
Beletsky

The art of proposal writing: from idea to submission

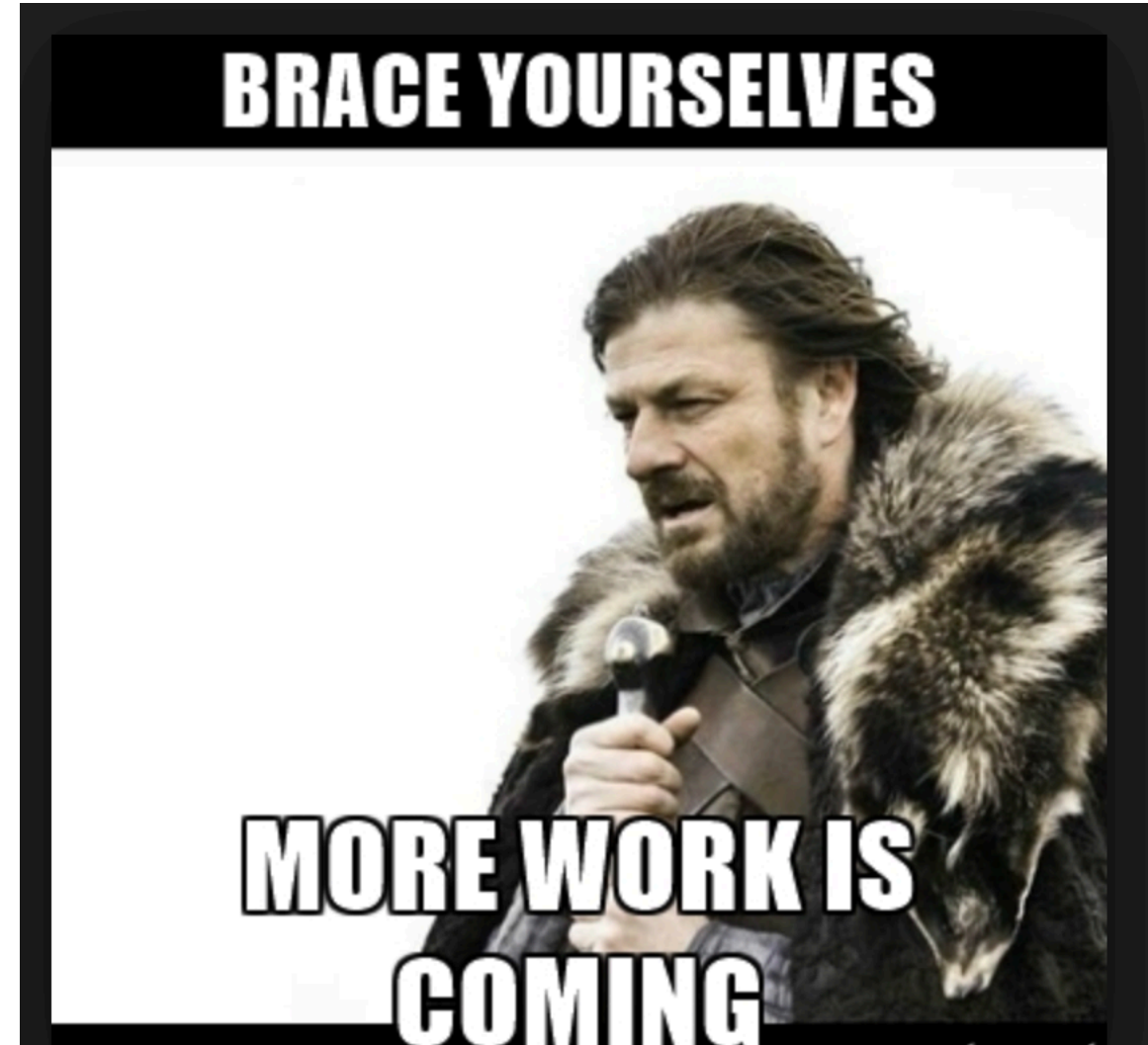
Claudia Paladini

VLTI Operations Staff astronomer

Starting point

You have a science case requiring new observations

- Which technique?
- Which instrument?
- When to apply?



The feasibility

■ PIONIER

- *H-band (1.65 micron),*
- *low spectral resolution ($R \sim 30$)*

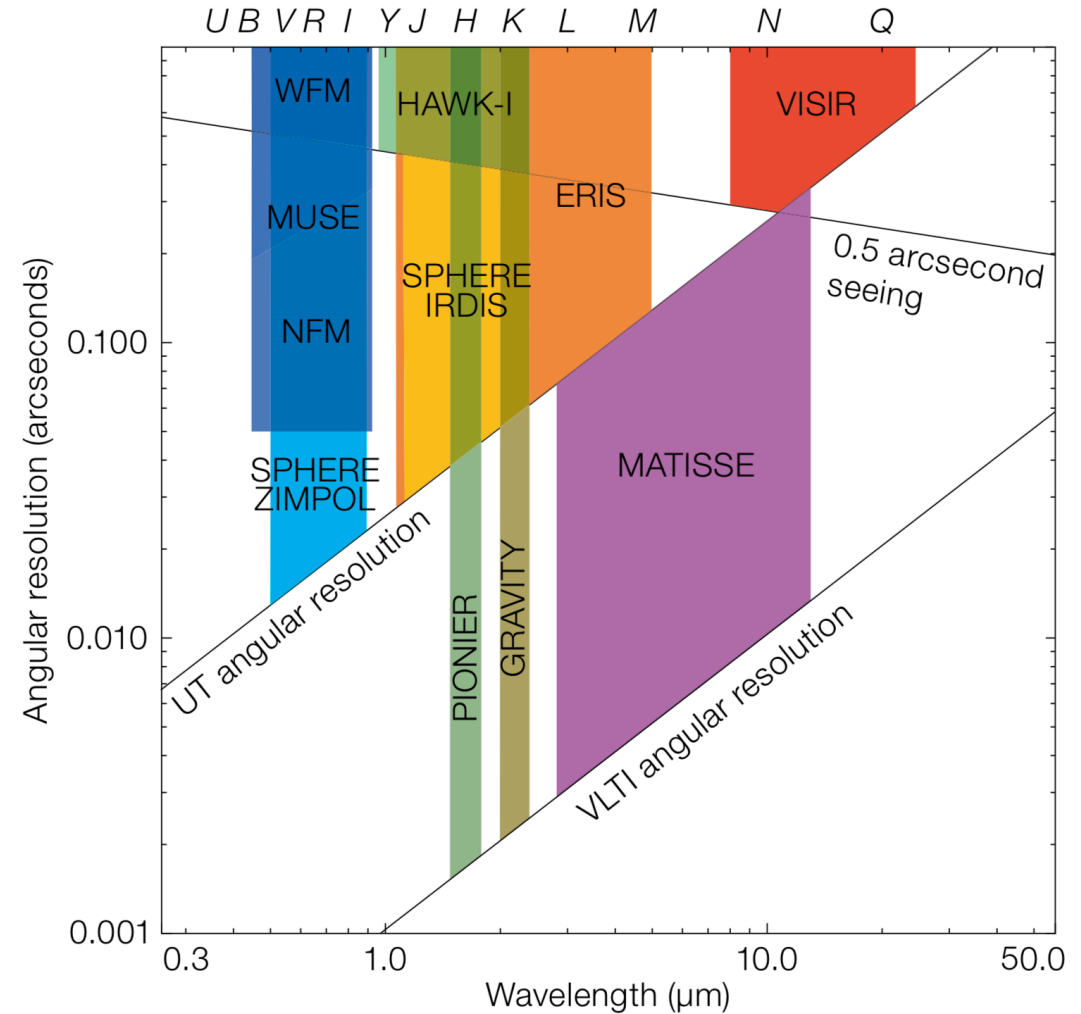
■ GRAVITY

- *K-band (2.-2.4 micron)*
- *$R \sim 22, 500, 4000$*

■ MATISSE

- *LMN-bands (3-13 micron)*
- *$20 < R < 3300$ in L band*
- *$20 < R < 550$ in M band*
- *$20 < R < 250$ in N band*

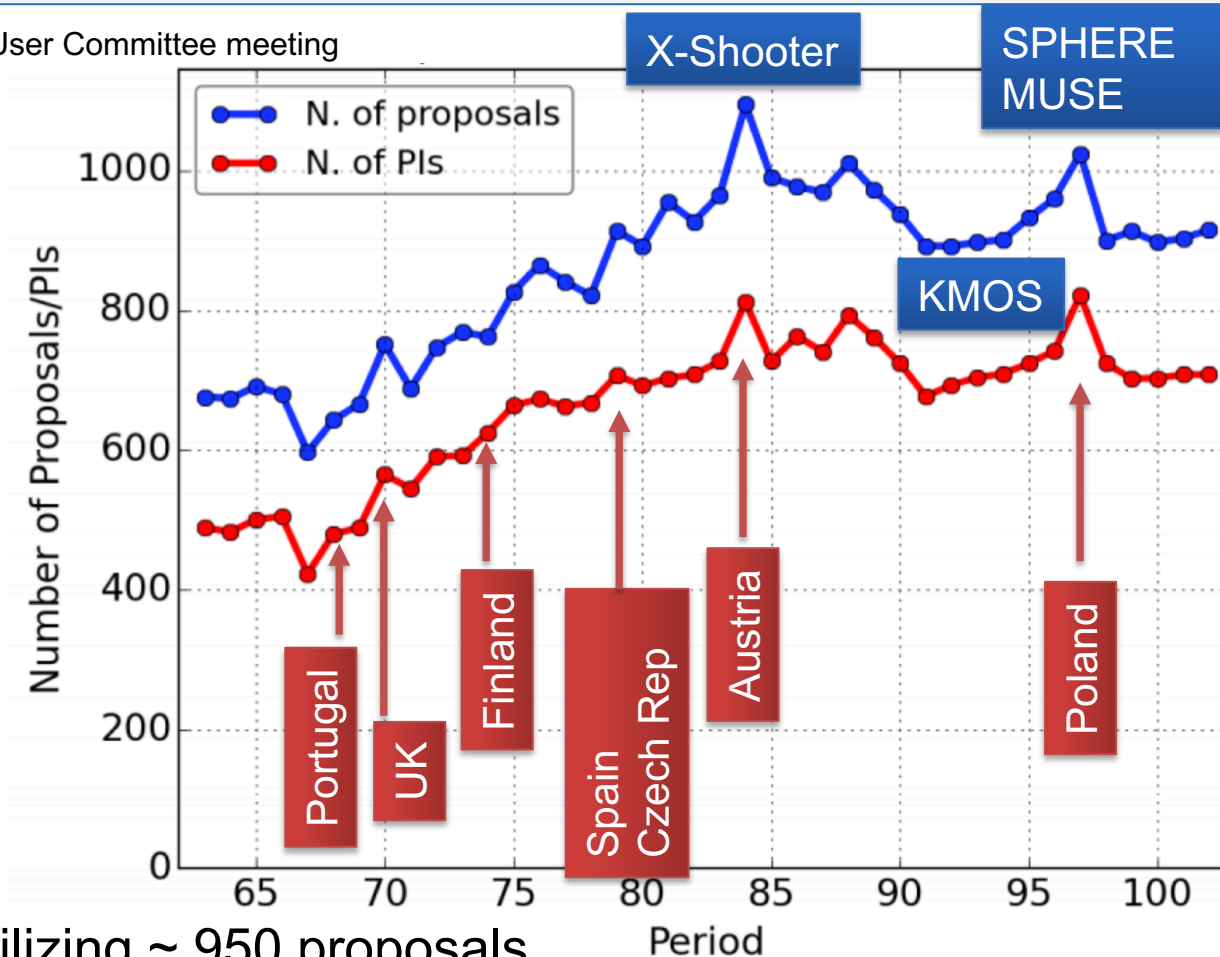
Both on the ATs and on the UTs!!!



Credits: ESO Messenger

You are not the only one with an idea

Patat 2018, ESO User Committee meeting



Stabilizing ~ 950 proposals

~700 Principal Investigators

~3170 nights asked in the last 4 years (1070 scheduled)

~800 Proposal submitted in the last 24H!

The pressure on the VLTI is not that high, especially if you want to apply for the ATs!



Different types of proposal @ESO

- Director Discretionary Time (~ 5%) - DDT
- Target of Opportunity – ToO (events predictable in a generic sense)
- Large Program – LP (> 100h, only even periods from P104)
- Guarantee Time Obs. (you build telescope/instrument, payment in Observing Time)
- Normal Programs (typically this is your proposal)
- Monitoring programs (< 100 h, lasting for up to 4 periods)

When do you ask for DDT?

- Unpredictable ToO
- Proposal requesting observations on a hot scientific topic
- When your previous observations miss one data point for a breakthrough result

Can be asked at any time.



The OPC*

Observing Proposal Committee



*Also called TAC: Telescope Allocation Committee

Before the OPC meeting

- Panel members receive detailed instructions on the process and their role
- All panel members grade all proposals and submit grades and comments to ESO



~ 70 proposal
on a subject different from your
to read during your free time
(work for free)

Conflict of interest

- Should be declared by the referee one week after receiving the proposals
- If detected only at the meeting – member does not vote (leave the room)
- People normally follow this rule



Conflict of interest

- Should be declared by the referee one week after receiving the proposals
- If detected only at the meeting – member does not vote (leave the room)
- People normally follow this rule



The OPC meeting

- Each proposal has 1 principal referee + full sub-panel
- Previously to the meeting the referees send their marks and comments to the panel
- Meeting lasts for one week
 - 2 days for panels meetings
 - 3 days for OPC member final ranking
- Time spent with each proposal
 - Before panel typical time is ~ 20 min
 - During panel discussions typical time is ~ 5-7 min





How the referee grades

Sufficient background/context for the non-expert?

Are previous results clearly presented?

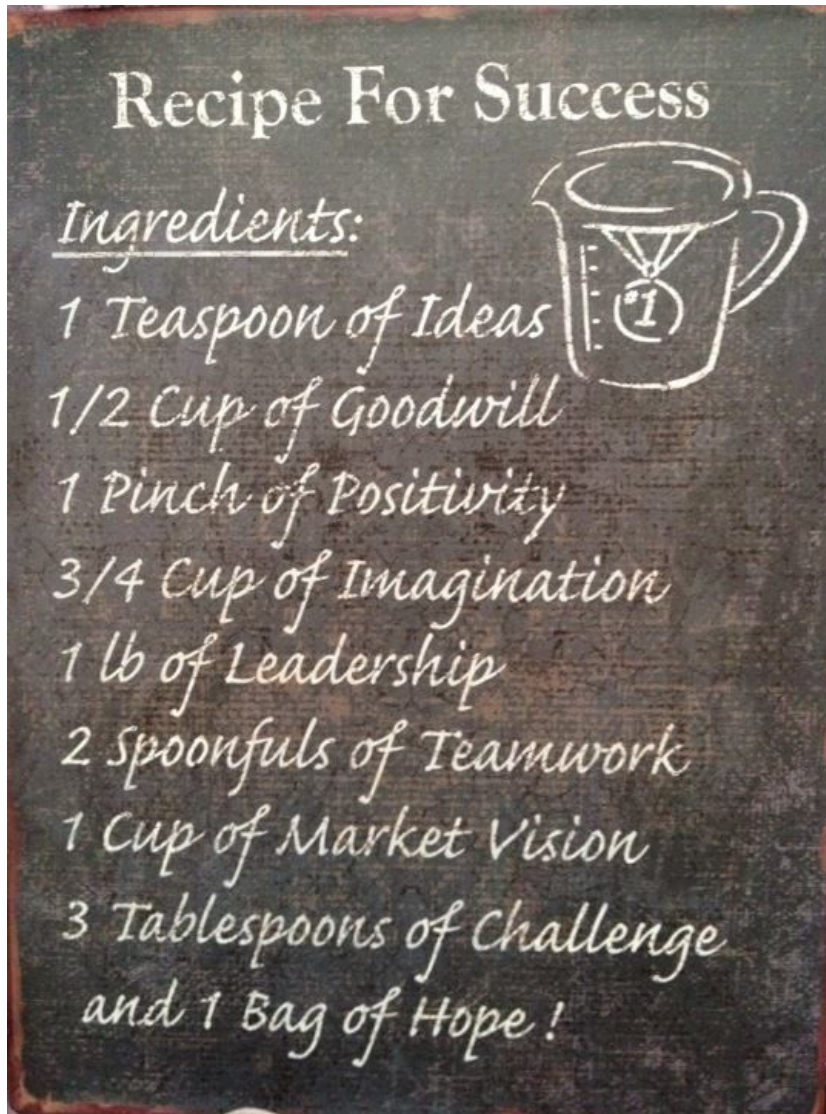
Are the proposed observations and the Immediate Objectives pertinent to the background description?

Is the sample selection clearly described, or, if a single target, is it justified?

Are the instrument modes, and target location(s) specified clearly?

Will the proposed observations add knowledge to the astronomical field?

Recipe for success





European Organisation for Astronomical Research in the Southern Hemisphere

Observing Programmes Office • Karl-Schwarzschild-Strasse 2 • D-85748 Garching bei München • email: opo@eso.org • Tel: +49 89 3200 6473



Cycle: P108
Type: Large
Status: Valid
Printed: 10 Jun 2021

APPLICATION FOR OBSERVING TIME


IMPORTANT NOTICE

By submitting this proposal, the PI takes full responsibility for the content of the proposal, in particular with regard to the names of CoIs and the agreement to act according to the ESO policy and regulations, should observing time be granted.

Calls ~1st March and ~1st September

Deadlines are ~31st March and ~1st October

(check on the ESO webpage)



Mon	Tue	Wed	Thr	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	✗	🍷	🍷



Rule 1 RTFM

Read This Fantastic Manual



ESO Call for Proposals – P108

Proposal Deadline: 25 March 2021, 12:00 noon CET

**Rule 2
RTFM
as well as the
VLTI and
instrument
manuals and
instrument
webpages**



ESO Call for Proposals – P108

Proposal Deadline: 25 March 2021, 12:00 noon CET

Rule 3

Do not start writing the proposal the evening before the deadline.



This is BAD.

Rule 4

Understand the system

- Call for proposal
- VLT/VLTI Science Operation policy
- User group minutes
- Discuss with ESO national representative
- [Don't be afraid of contacting @ESO](#)



Rule 5
**Ask a
colleague
from another
field to read
your proposal**

**Strictly
connected
with Rule 3**



The ESOFORM

- Based on the esoform-108A
- Be aware of changes from one call to another!



ESO Call for Proposals – P108

Proposal Deadline: 25 March 2021, 12:00 noon CET



The new Phase 1 (P1)

A screenshot of a web browser window showing the login page for the Phase 1 Proposal Submission. The browser's address bar displays 'eso.org'. The page content includes the ESO logo, the title 'Login - Phase 1 Proposal Submission', a 'Username' field with the placeholder text 'username', a 'Password' field with the placeholder text 'password', and a blue 'Login' button.

Remember to register and use with the tool well before the deadline!

www.eso.org/pi1demo



The new P1

Phase 1 1.0.0beta62 Proposal Submission ? Help DEMO ENVIRONMENT Phase 1/2 Tutorial Account

Your Proposals [New Proposal](#)

Sort by: [cycle](#) [pi](#)

- + Ma demande
- + test
- + vitor
- + Test of DDT P104
- + 001 Proposal to play
- + 000 Example for beginners DDT1
- + 003 VLTI example

Proposals

Programme ID	Cycle	Title	Abstract	Status	PI	Actions
to be assigned	P105 - Cycle P105 ProposalSubmission	Ma demande		Draft	Phase 1/2 Tutorial Account	Delete PDF
to be assigned	P105 - Cycle P105 ProposalSubmission	test		Draft	Phase 1/2 Tutorial Account	Delete PDF
to be assigned	P105 - Cycle P105 ProposalSubmission	vitor		Draft	Phase 1/2 Tutorial Account	Delete PDF
to be assigned	P104 - DDT P104 ProposalSubmission	Test of DDT P104		Draft	Phase 1/2 Tutorial Account	Delete PDF
to be assigned	P103 - DDT103p1 Inactive	001 Proposal to play		Invalid	Dr. Johannes Bach	PDF
to be assigned	P103 - DDT103p1 Inactive	000 Example for beginners DDT104		Invalid	Dr. Olivier R. Hainaut - OPERATIONS	PDF
to be assigned	P105 - Eng P105 ProposalSubmission	003 VLTI example		Draft	Dr. Olivier R. Hainaut - OPERATIONS	PDF





The new P1

Add Proposal

Proposal Title

My MATISSE proposal

Cycle

Cycle P105

Programme Type

- select programme type -

✓ Normal

GTO

Monitoring

Calibration

✕ Cancel

✓ Create Proposal



The new P1

The screenshot shows a web browser window at eso.org. The top navigation bar is orange and contains 'Phase 1 1.0.Beta62', 'Proposal Submission', 'Help', 'DEMO ENVIRONMENT', and 'Phase 1/2 Tutorial Account'. The left sidebar, titled 'Your Proposals', includes a 'New Proposal' button and a 'Sort by:' dropdown set to 'cycle'. Below this is a list of folders: 'Ma demande', 'My MATISSE proposal' (expanded to show 'Summary', 'Title & Abstract', 'Category', 'Investigators', 'Rationale', 'Targets', 'Runs', 'Targets & Runs', 'Observations', 'Remarks & Justifications', 'Awarded & Future Time Requests', 'Previous Usage', and 'Applicants' Publications'), 'test', 'vitor', 'Test of DDT P104', '001 Proposal to play', '000 Example for beginners DDT1..', and '003 VLTI example'. The main content area is titled 'APPLICATION FOR OBSERVING TIME' and includes buttons for 'Clone', 'Help', 'PDF', and 'Delete'. It displays metadata: 'Programme ID: to be assigned', 'Programme Type: Normal', 'Cycle: Cycle P105', and 'Status: Draft'. A paragraph states that the PI takes full responsibility for the proposal content. Below this is the 'TITLE: My MATISSE proposal'. A red-bordered 'Checklist' box contains a warning icon and a list of 13 items that must be resolved before submission. At the bottom, there are 'ABSTRACT' and 'SCIENTIFIC CATEGORY' sections, each with an 'Edit' button.

Phase 1 1.0.Beta62 Proposal Submission Help DEMO ENVIRONMENT Phase 1/2 Tutorial Account

Your Proposals

New Proposal

Sort by: cycle x pi x

- + Ma demande
- My MATISSE proposal
 - Summary
 - Title & Abstract
 - Category
 - Investigators
 - Rationale
 - Targets
 - Runs
 - Targets & Runs
 - Observations
 - Remarks & Justifications
 - Awarded & Future Time Requests
 - Previous Usage
 - Applicants' Publications
- + test
- + vitor
- + Test of DDT P104
- + 001 Proposal to play
- + 000 Example for beginners DDT1..
- + 003 VLTI example

APPLICATION FOR OBSERVING TIME

Clone Help PDF Delete

Programme ID: to be assigned · Programme Type: Normal · Cycle: Cycle P105 · Status: Draft

By submitting this proposal, the PI takes full responsibility for the content of the proposal, in particular with regard to the names of Cols and the agreement to act according to the ESO policy and regulations, should observing time be granted.

TITLE: My MATISSE proposal

Checklist

The following issues must be resolved prior to submission of the proposal.

- Define at least one observing run.
- Attach a Scientific Rationale in PDF format.
- The input field 'Abstract' must be filled. If not relevant, please type in n/a.
- The input field 'Special Remarks' must be filled. If not relevant, please type in n/a.
- The input field 'Lunar Phase and Constraints Justification' must be filled. If not relevant, please type in n/a.
- The input field 'Time Justification' must be filled. If not relevant, please type in n/a.
- The input field 'Telescope Justification' must be filled. If not relevant, please type in n/a.
- The input field 'Observing Mode Justification' must be filled. If not relevant, please type in n/a.
- The input field 'Calibration Request' must be filled. If not relevant, please type in n/a.
- The input field 'Duplication with ESO Science Archive' must be filled. If not relevant, please type in n/a.
- The input field 'GTO & Survey Target Duplication Justification' must be filled. If not relevant, please type in n/a.
- Select one Category.
- Total telescope time 0.0h must be at least 0.1h.

ABSTRACT

Edit

SCIENTIFIC CATEGORY

Edit





Your Proposals [New Proposal](#)

Sort by: [cycle](#) [pi](#)

+ [Ma demande](#)

- [My MATISSE proposal](#)

- Summary
- Title & Abstract**
- Category
- Investigators
- Rationale
- Targets
- Runs
- Targets Runs
- Observations
- Re
- Av
- Pr
- At

Proposal: My MATISSE proposal

[Help](#)

Proposal Title

19 of 120 char

My MATISSE proposal

Abstract

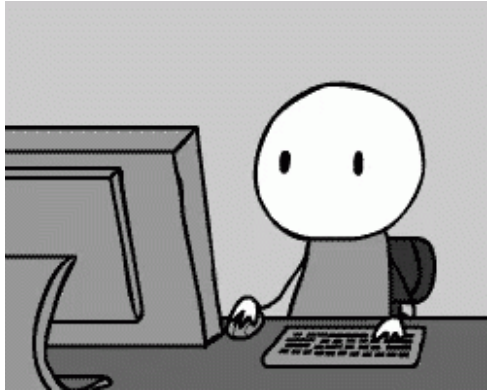
26 of 1000 char

[wTA](#)

This is the proposal title

Title and abstract obey to the normal considerations

- *Do not be too generic*
- *No previous knowledge needed*
- *Do not use fancy words*
- *Not too long*
- *Do not overrate your project*
- *Be catchy!*



ADVANCING
EARTH AND
SPACE SCIENCE

Read the full text > | About

 |

Journal of Geophysical Research: Space Physics /
Volume 123, Issue 12

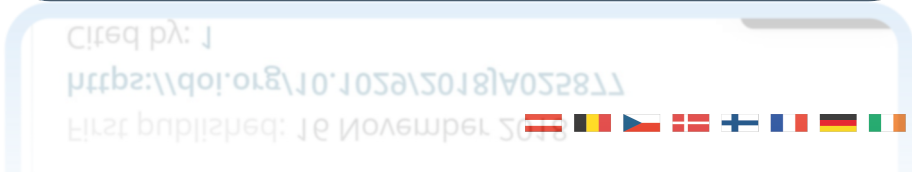
Technical Reports: Methods

Snakes on a Spaceship—An Overview of Python in Heliophysics

A. G. Burrell , A. Halford, J. Klenzing,
R. A. Stoneback, S. K. Morley ... [See all authors](#) >

First published: 16 November 2018
<https://doi.org/10.1029/2018JA025877>

Cited by: 1





Your Proposals [New Proposal](#)

Sort by: cycle x pi x ▾

+ [Ma demande](#)

- [My MATISSE proposal](#)

- Summary
- Title & Abstract**
- Category
- Investigators
- Rationale
- Targets
- Runs
- Targets **Runs**

Proposal: My MATISSE proposal [Help](#)

Proposal Title 19 of 120 char

My MATISSE proposal

Abstract 26 of 1000 char [wTA >](#)

This is the proposal title|

- 1. The big picture**
- 2. Why?**
- 3. What we would like to do and its connection to the big picture (central problem)**
- 4. The (breakthrough) expected outcome of the observations**

A companion interacting with the circumstellar environment (CSE) is the most accepted explanation for the presence of asymmetric planetary nebulae (PN). In the previous phase of stellar evolution, on the asymptotic giant branch (AGB), evidence for this interaction was observed only in the CSEs of a handful of objects. To close the gap between the AGB and the PN phase we propose to image with VLT/PIONIER the environment of $\pi 1$ Gru which is close to the tip of the AGB. Herschel far infra-red images reveal an asymmetric wind morphology, while an analysis of the Hipparcos Intermediate Astrometric Data (IAD) supports the presence of a close companion. The proposed observations will allow to determine the position of the companion and the precise separation from the AGB star, which is needed to model the binary interaction.

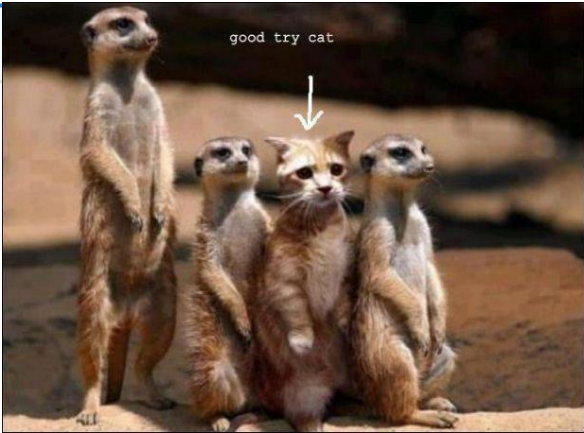
The new P1

⚠ Please select 1 category.

🔍 Scientific Category

🔍 Collapse all 🔍 Expand all

Selected Category



Available Scientific Categories

- ▶ A. Cosmology and the intergalactic medium
- ▶ B. Galaxies
- ▶ C. ISM, Star Formation and Planetary Systems
- ▶ D. Stellar evolution
- ▶ L. Calibration

■ Categories

➤ *Will define who is going to read/judge your paper*

The new P1

Your Proposals New Proposal

Sort by: cycle x pi x

+ Ma demande

- My MATISSE proposal

- Summary
- Title & Abstract
- Category
- Investigators**
- Rationale
- Targets
- Runs
- Targets & Runs
- Observations
- Remarks & Justifications
- Awarded & Future Time Requests
- Previous Usage
- Applicants' Publications

Proposal: My MATISSE proposal Help

i You are **Principal Investigator** of this proposal. You can add Investigators by entering their complete email address. All Investigators must be registered in the [ESO User Portal](#). Please note that for the testing purposes of the p1demo environment we have created two "test-users" and these are the only ones you can add: esouserp101@gmail.com and esouserp102@gmail.com

Investigators + Email...

Role	Name	Email	Institute	Country	Actions
PI	Phase 1/2 Tutorial Account	52052@nodomain.net	ESO Headquarters Garching	ESO	

- Investigators: remind them to register to the ESO portal!
- **BUILD YOUR TEAM:** choose your Cols thinking about the science that you want to do!

7. Description of the proposed programme

A – Scientific Rationale: Scientific rationale: scientific background of the project, pertinent references; previous work plus justification for present proposal.

“Sell” your story!

- Similar form to a paper introduction but simpler (panel composition!)
- The importance of the work in the field at large (sometimes very large, like for LP) should be made clear

1. Why do we care?
 2. What are the important open questions?
 3. What are you going to address?
 4. What is the important missing piece?
- => Answer: your observations**





B – Immediate Objective: Immediate objective of the proposal: state what is actually going to be observed and what shall be extracted from the observations, so that the feasibility becomes clear. In the case of VLT-XMM programmes please also specify the immediate objectives of the XMM observations.

- Present the observations you are proposing to address the previous question(s)
- The results and discussion of the paper should be anticipated
- If you get a negative result – discuss the implications
- Feasibility must be clear – don't try to trick the OPC
- Always identify objectively the risks and outcomes
- Present your strategy for data reduction and interpretation

Description + Immediate Objective

2 pages including figures!



KEEP
CALM
AND
STAY WITHIN
THE LIMITS

- FOCUS and be consistent!
- Choose the most interesting-catchy-cool result you expect
- Choose 1-2 nice, representative, simple figures
- Be aware of the dual anonymous guidelines!



Run Summary

[Edit](#)

Run	Period	Instrument	Tel. Time	Constraints	Mode	Type	Tel. Setup	Propr. Time	Time Constraints
1. Run 1	105	MATISSE	1.0h	Turbulence: 70% (Seeing < 1.15 arcsec, t0 > 2.2 ms) pwv: 30mm Sky: PHO	SM	Normal	VLT-I-AT	12m	

Special Remarks

0 of 1000 char

[ωτλ >](#)

i Take advantage of this box to provide any special remark.

Special remarks

- tell the OPC that this is a re-submission of a previous well rated proposal not executed
- mention coordinated works
- stress out you are requesting just a small amount of time for outstanding outcome
- Your proposal can be a filler

The new P1

✦ Add Target

Target Name: **RETURN to resolve**
 alf Ori

Right Ascension: 05:55:10.30

Declination: 07:24:25.4

Coordinate System: J2000

Comment:

Moving Target Properties

Solar System Body

Proper Motion Right Ascension: 0.02754

Proper Motion Declination: 0.01130

Epoch: 2000

Magnitudes Fluxes

Specify *either* pairs of band/magnitude or pairs of wavelength/flux. Specify wavelengths in nm, and flux filled in, but can be edited. Click (+) or hit [enter] to save.

Band ⓘ	Magnitude ⓘ	Action
<input type="text"/>	<input type="text"/>	<input type="button" value="+"/>
V	0.42	<input type="button" value="x"/>
R	-1.17	<input type="button" value="x"/>
K	-4.05	<input type="button" value="x"/>

■ SCIENCE Target (VLT specific)

- No need to specify calibrators here!
- R (or Gaia G!) band magnitude for the telescopes guiding
- HK for PIONIER and GRAVITY
- Add LMN **mag** for MATISSE (check IRAS, WISE, SPITZER fluxes & convert)

The new P1

👁 Add Observing Run

Run Name	Instrument	Telescope Setup	Run Type	Observing Mode	Period	Proprietary Time
Run 1	MATISSE	VLTI-AT	Normal	SM	105	12 months

MATISSE Observing Constraints

Sky Transparency	PWV (mm)
Photometric	30
Turbulence	
50% (Seeing < 1.0 arcsec, t0 > 3.2 ms)	

✖ Cancel ✔ Add Run

- Identify your minimum requirements
 - If you ask 2" you always get usually **better** than that (do not be too strict nor too relaxed!)
- Be aware of the new turbulence constraints!

The new P1

Observing Runs

Show all Show all with details Collapse all Add Run

Run 1 - Run 1 - P105 - MATISSE - SM
Turbulence: 70% (Seeing < 1.15 arcsec, t0 > 2.2 ms) pwv: 30mm Sky: PHO

1. Observing Setup: OS 1

MATISSE

Interferometric Array
small

Types of interferometric observations
imaging

Observation

Do photometry sequence (T or F)
true

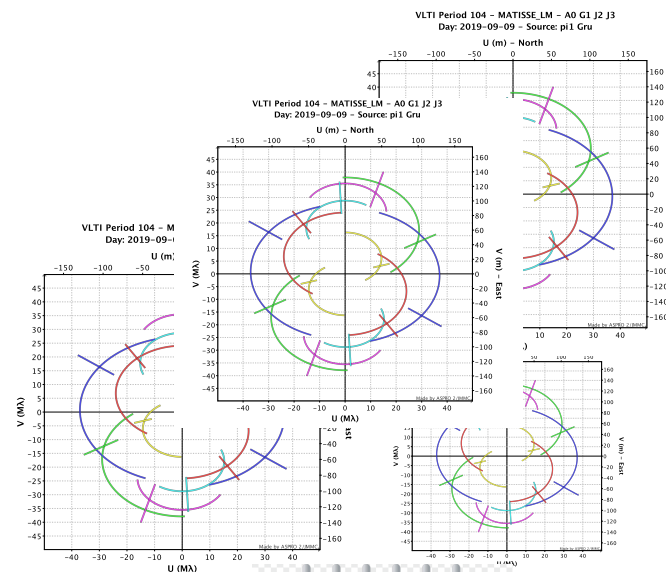
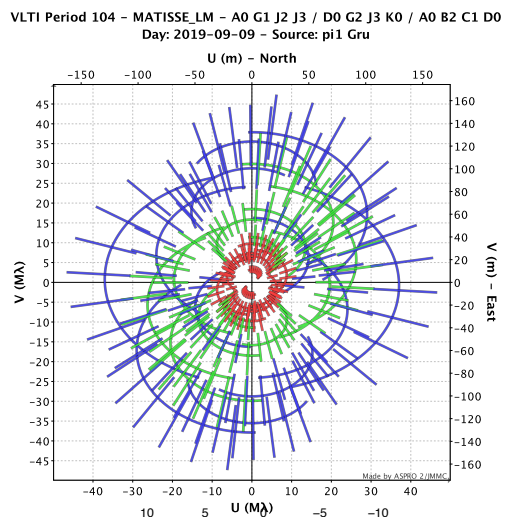
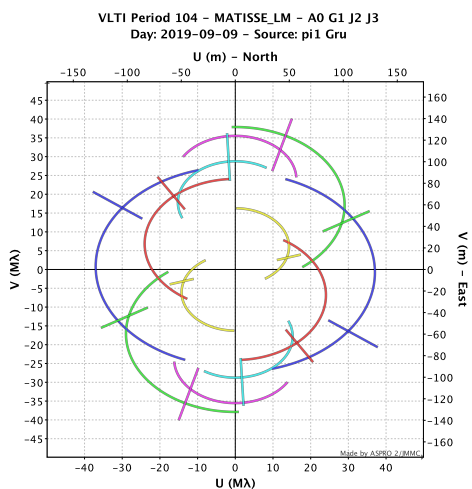
Spectral mode for L&M bands
LOW

Spectral mode for N band
LOW

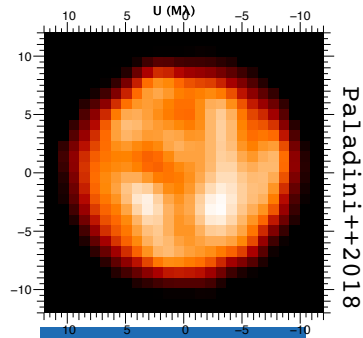
- Interferometric array: more than one can be selected

The new P1

Type of interferometric observations.
 Be aware of guidelines for imaging programs => VLTI manual



snapshot



imaging



Time-series

The new P1

Observing Runs

Show all Show all with details Collapse all Add Run

Run 1 - Run 1 - P105 - MATISSE - SM
Turbulence: 70% (Seeing < 1.15 arcsec, t0 > 2.2 ms) pww: 30mm Sky: PHO

1. Observing Setup: OS 1

MATISSE

Interferometric Array

small

Types of interferometric observations

imaging

Observation

Do photometry sequence (T or F)

true

Spectral mode for L&M bands

LOW

Spectral mode for N band

LOW

- Interferometric array: more than one can be selected
- Photometry always TRUE in MATISSE
 - Unless one needs differential measurements sometimes GRA4MAT

The new P1

i Select targets and associate them with the desired observing runs.

Select Targets

	Target Name	RA	Dec
<input checked="" type="checkbox"/>	alf Ori	05:55:10.30	07:24:25.4

Observing Runs

Normal Run: Run 1 P105 · MATISSE · SM

☰ alf Ori

- Assign the target to the run
- More targets can be assigned

The new P1

please follow this guideline

Run 1 - Run 1 · P105 · MATISSE · SM
 Turbulence: 70% (Seeing < 1.15 arcsec, t0 > 2.2 ms) pvv: 30mm Sky: PHO

alf Ori, 05:55:10.30, 07:24:25.4 Tel. Time: 1h00m

Observation 1: OS 1

Telescope Time [s] 3600 Σ x Repeat 1 = 3600 s

MATISSE

Interferometric Array
small

Types of Interferometric observations
imaging

Telescope Overheads [s]
3600

Observation

Do photometry sequence (T or F)
true

Spectral mode for L&M bands
LOW

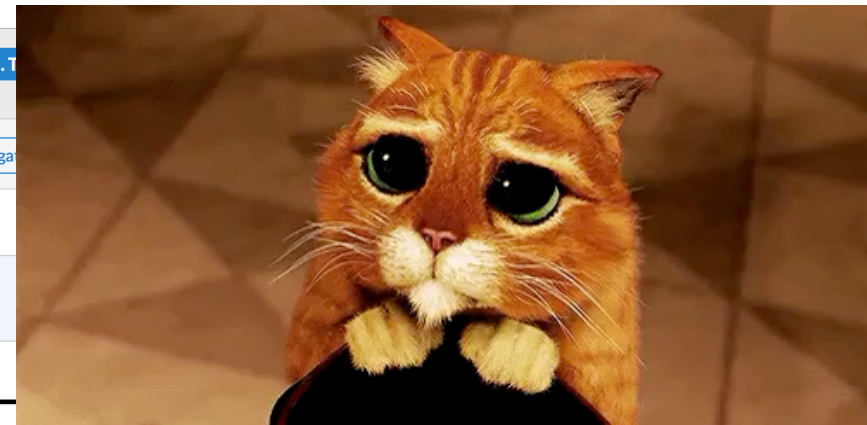
Spectral mode for N band
LOW

Integration Time [s]
0

Instrument Overheads [s]
0

Signal/Noise
0

Add Reference Target Coude Guide Star



Execution Times

Setup	single OB	CAL-SCI	CAL-SCI-CAL
Low L and M-band	20 min	40 min	60 min
Medium L and M-band	20 min	40min	60 min
High L-band	25 min	50 min	75 min
N-band photometry*	+10 minutes	+20 minutes	+30 minutes

- Should include the calibrators time! (CAL-SCI, CAL-SCI-CAL,...)
- Only telescope Overheads should be filled

Calibrators are specified in P2 however...



- Problem finding MATISSE calibrator good in both bands
- MATISSE: LM + N
 - Resolving power 3 mas to 10 mas!
- Remember to check already in P1, will help to decide if you need CAL-SCI or CAL-SCI-CAL
 - Difference in your time estimation!

The new P1

Lunar Phase and Constraints Justification

0 of 1000 char

ωτλ >

i Justification of the requested conditions in terms of lunar phase and constraints. Please reference all runs having different constraints.

Lunar Phase: important for Adaptive optics (NAOMI, MACAO), not for VLTI instruments! See [VLTI user manual](#)

Time Justification

0 of 3000 char

ωτλ >

i Justification of the telescope time, including technical and seeing overheads. Please discuss each run.

- Identify the amount of time **CRUCIAL** to achieve your goals and justify it, stay simple
- Use the Exposure Time Calculator (if available)
- **The numbers on the manual and overhead table rules!**

The CfP, ESO manuals, the instrument webpages and overhead table rule!



Credit: Game of thrones season 2, episode 6.

The new P1

Telescope Justification

0 of 1000 char

ωτλ >

i Justification of the choice of telescope (eg. VLT, NTT, etc...) with respect to other available alternatives. For non-Member State Proposals, indicate whether alternatives are available to the proposers.

- Why GRAVITY and not PIONIER? Why not aperture masking?
Why MATISSE and not VISIR?
- Beware of asking UT time when it can be done with ATs
- Do justify the telescope, not just the instrument!

The new P1

Observing Mode Justification

0 of 1000 char

[ωτλ >](#)

i Explain if a particular observing mode (Service/Visitor) is specifically needed for this programme. If either is suitable, then please enter N/A.

Visitor Mode (VM) can be relevant if

- Observing difficult targets (magnitude/zenithal distance)
- Be aware of the new “designated VM”
- Service is more efficient

Calibration Request

0 of 1000 char

[ωτλ >](#)

i If calibrations are required in addition to the standard calibration plan, justify why, and describe them. If the calibration plan is sufficient, please enter N/A.

Usually standard, be careful with creativity
Check on the instrument manual!

The new P1

Duplication with ESO Science Archive

0 of 1000 char [ωτλ >](#)

i Are the data requested by this proposal in the ESO Science Archive? If so, explain the need for new data. Otherwise, please enter N/A.

GTO & Survey Target Duplication Justification

0 of 1000 char [ωτλ >](#)

i Are some of your targets part of the GTO-protected target lists? If yes, please explain why there is no conflict with the GTO programme. Otherwise, please enter N/A.

- Justify archive duplication
- Check the GTO list online before starting to write. You cannot duplicate GTO observations!
 - In MATISSE you always get LM + N! need to change both bands spectral resolution!



The new P1

Proposal: My MATISSE proposal

[Help](#)

i Input previous uses of ESO facilities with the + button: for any/all investigators select the runs, and add a short comment on the status of the data. You can change their order by drag'n drop.

Previous Usage

[+ Edit Previous Usage](#)

no previous usage defined

- Are you really doing science or increasing the archive volume?
- Show you are an active and efficient ESO user!

Do not be afraid of applying as Principal Investigator if this is your idea!

Common mistakes

- **Bad use of telescope time**
 - Huge program with low return (probability)
 - Asking not enough time
- **Don't consider panel composition**
 - The proposal should very well introduce the domain
- **Errors that show that the proposal was done in a hurry**
 - after copy and paste read what you wrote..
 - after 2 days read again!
- **Asking for too stringent observing conditions**
- **Unstructured proposal**
 - Figures can be very useful, even if they are not mandatory
- **Submitting too many proposals**



Tips & Tricks

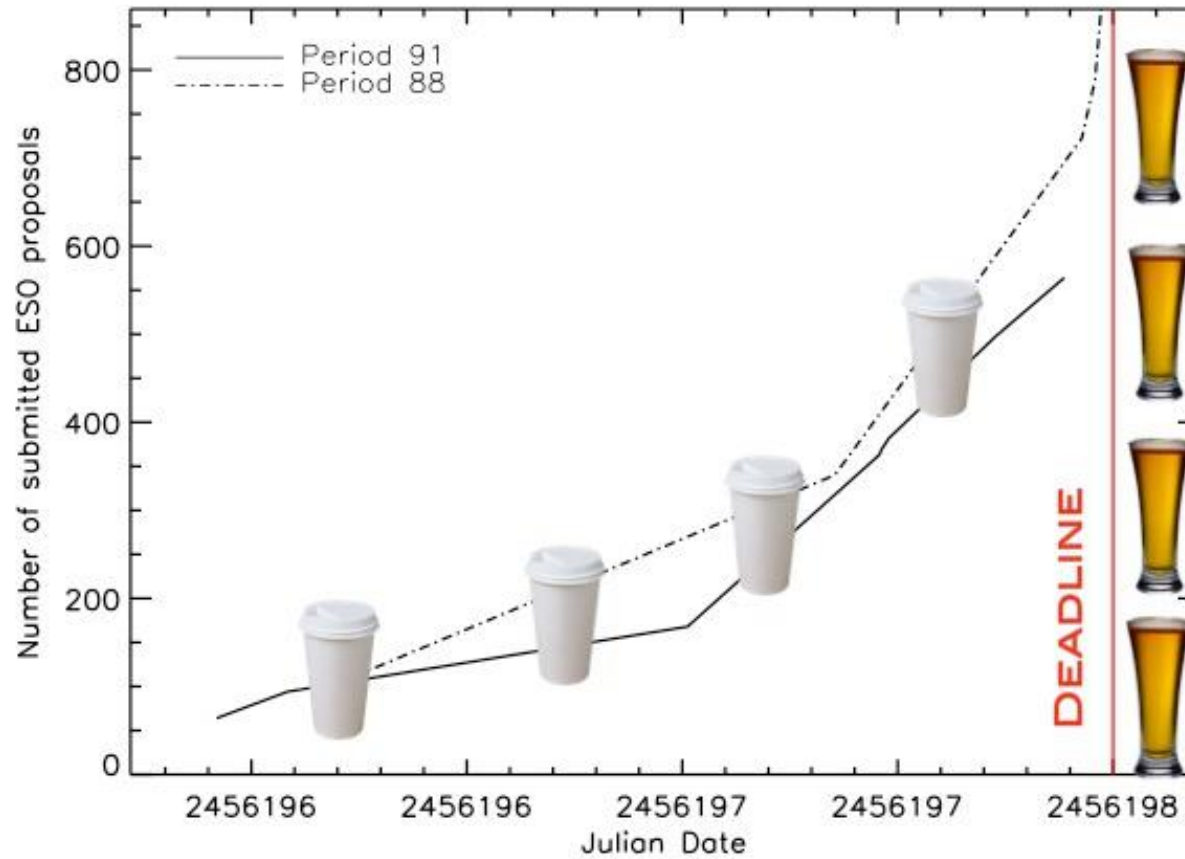
The panel likes:

- Innovative/ambitious FEASIBLE proposals
 - With high impact potential when compared with the average A&A paper
- Well structured proposals

Remember:

- When you apply for 1 target explain why exactly that star (relevance for the field of research)
- If you apply for a Large Program your proposal will be judged by all the panels: program relevant for every field of research!

Submit within the deadline



AFTER THE OPC MEETING

106 [Change period](#)

You can find below a list of all the proposals that you submitted for application for observing time during Period 106. Please for each of them read carefully the additional information accessible by clicking on the programme ID, which covers important aspects related to time allocation comments, technical feasibility issues, scheduling and deadlines.

Status	Programme ID	Title
X	106.D-0001	This is the title of your proposal number 1
✓	106.D-0002	This is the title of your proposal number 2
✓	106.D-0003	This is the title of your proposal number 3 (did you really write 3 proposals?)

- **Strength:** This is a new field of investigation which is worth exploring and which has the potential of providing crucial constraints to the current theories of convection.
- **Weakness:** The sample size is not justified. Why seven stars (no more, no less)? What will this sample be able to test that cannot be done with less stars or would not greatly benefit from an extended sample...

Proposal ranking categories

A: Programs highly ranked

- All possible effort will be made to execute all the OBs in the requested observing period
- If not totally executed
 - can be declared “substantially complete”
 - carry it over to at most the next useful period (only Large Programs)

B: Programs well ranked

- Best effort will be made to execute all the OBs in the requested observing period

C: Filler programs selected from below the cut-off line

- OBs will only be executed if the observing conditions do not permit to conduct programs A and B
- If you have no weather constrains you will very likely get data!

What to do when you get rejected

- Do not overemphasize the message you got
- Understand why you got rejected
 - Read the proposal again
 - Ask your colleagues to read the proposal and give you his feedback
 - Contact OPC member/chairman/VISAS
 - Always be positive and objective during communication
- **Avoid at all cost entering conspiracy theories**



What to do when you get A/B but no data...

- Re-submitted with a special remark on non-execution and grade
- Relax observing constrains (seeing, ETC)
 - Scheduling is done by software...





Game time

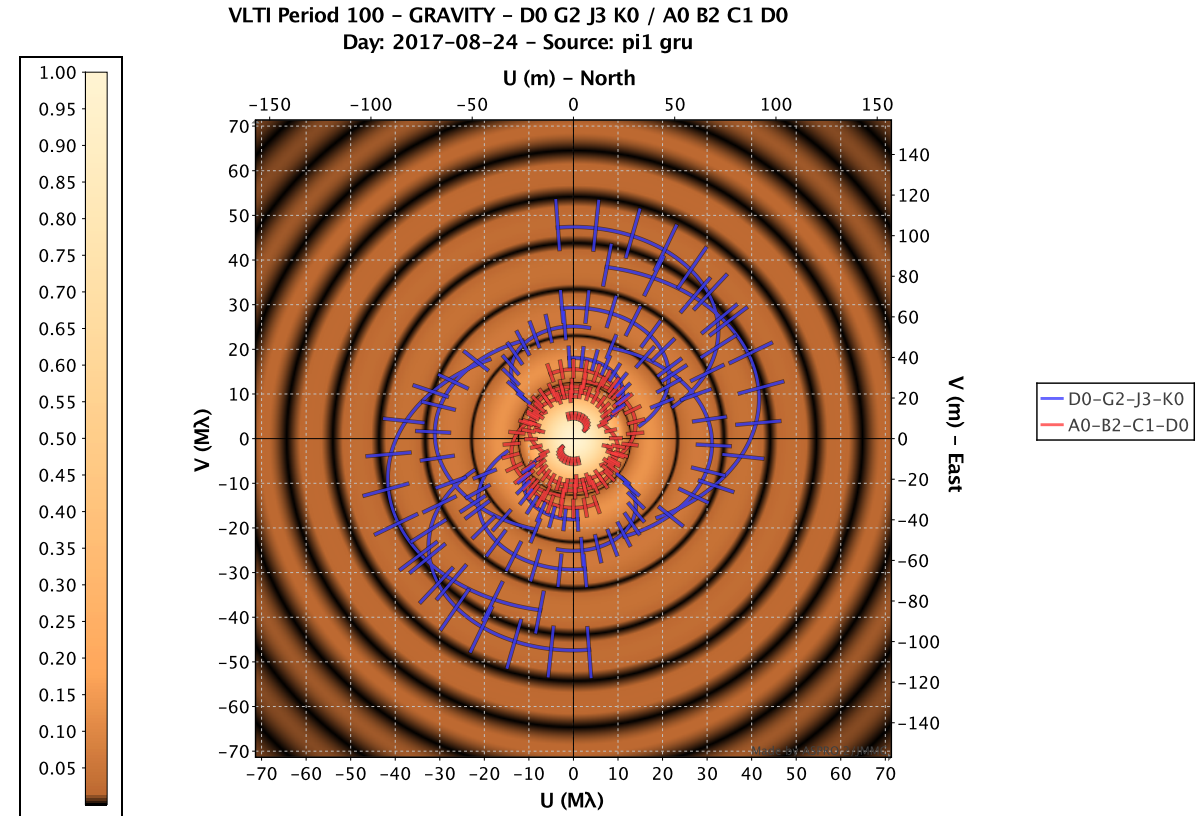
Rules of the game

- teams of 3-4 students (possibly with common scientific interest)
- prepare an observing proposal
- present it “live” in front of a simulated OPC panel on Saturday morning
 - **MAXIMUM** 7 slides & 10 minutes presentation
 - immediate feedback (~5 minutes)
 - no need to fill in the “ESO proposal form”
- Large/Normal/Monitoring Program... up to you

Tips for the presentation

- Why ?
 - scientific justification, overview
- What ?
 - which object/s, which parameters ...
 - which results are expected
 - what if the result is negative
- How ?
 - which instrument, UT / AT ... Why ?
 - special constraint (epoch, baseline, seeing...)
 - preparatory observations if any (model fitting or simulated images)
 - At least one calibrator

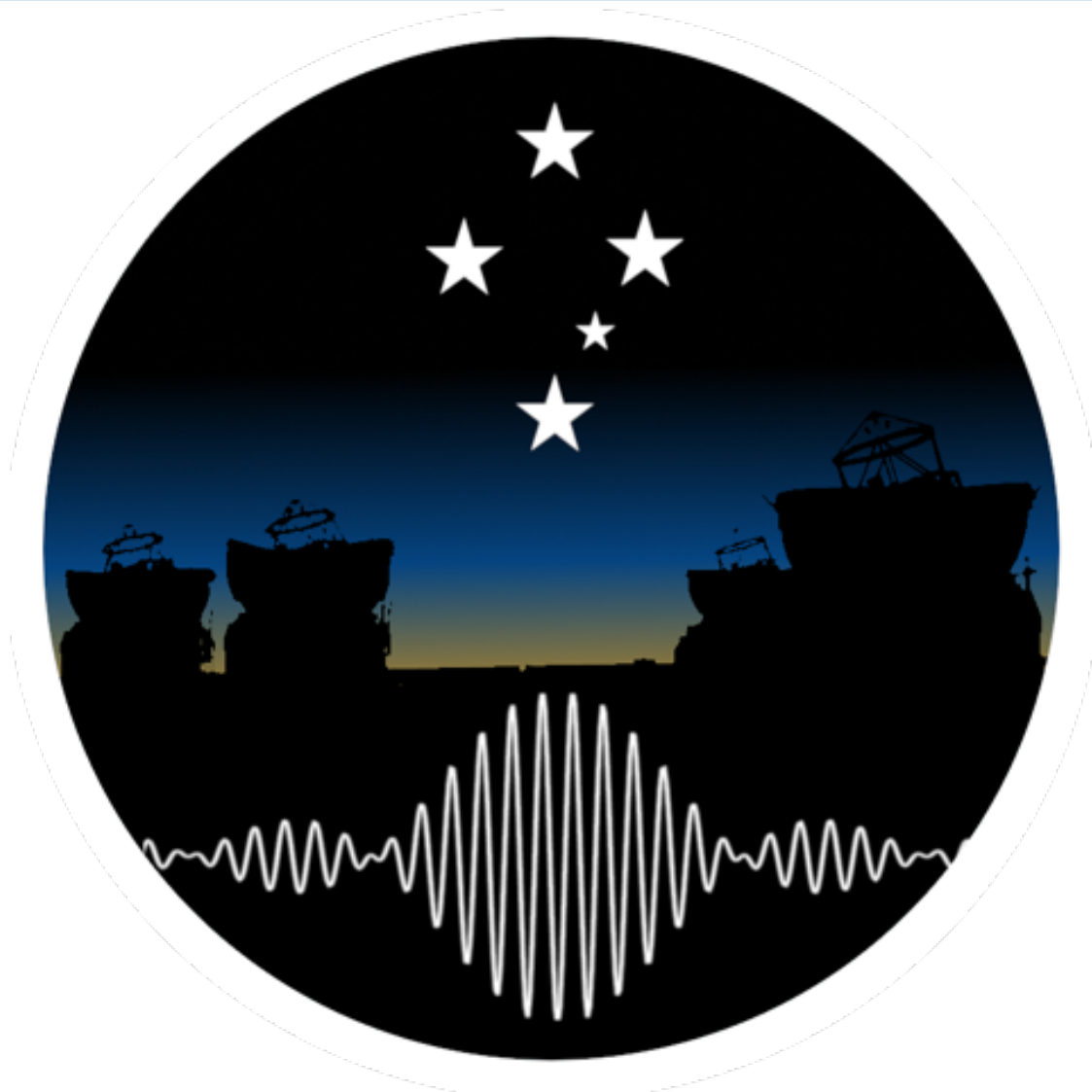
- We want to see you using ASPRO/LITPro/image reconstruction/ETC the tools learnt during the school!



Kind of target / instrument

- Real target
 - Specify the magnitudes/fluxes
 - Instrument(s):
 - PIONIER
 - GRAVITY
 - MATISSE
- => More than one if needed!





- Call for proposal opens now.
- Deadline: Thursday 17 June at 9 CEST time!
- Submission (pdf) via email:
cpaladin@eso.org

Useful Links

Kervella & Garcia (2007)

<http://arxiv.org/pdf/0705.4065v1.pdf>

ESO VLTl webpage:

<http://www.eso.org/sci/facilities/paranal/telescopes/vlti/>

Call for Proposals of the period you are applying

User's manual for Phase 1 proposals (esoform package)

On the writing of observing proposals, Christoffel Waelkens

<http://www.eso.org/sci/observing/proposals/writing-op.html>

OPC minutes (not always available)

<http://www.eso.org/public/about-eso/committees/opc/>

Preparing an ESO proposal, by P. Kervella & P.J.V. Garcia

http://www.vlti.org/events/assets/2/documents/3a_2.6_Kervella.pdf

OPO documets:

http://venngeist.org/opsa2_patat.pdf

<http://www.eso.org/sci/publications/messenger/archive/no.150-dec12/messenger-no150-17-20.pdf>

More Tips & Tricks

=> learn to write proposal: exercise, exercise...

- To have ideas for a science case read a lot of papers and go to seminars! Even if they are not related to your PhD/scientific topic!
- When you have an idea try first to convince your collaborators.
- Do not wait the day before the deadline! At least try...
- Read the manuals, read the manuals, read the manuals...
- Check carefully your targets! (are they bright enough? are they in the right emisphere? are they observable in the period of the call?).
- Use the tools for preliminary modeling & feasibility! (ETC)
- Aim for a balance between humility+open-mindedness (80% perhaps) and arrogance+sheer-self-belief (20%).
- Having a really good Abstract and title are surprisingly helpful

Service Mode To Do list

- **Read p2 & instrument manuals**
 - Search for calibrators
 - Prepare phase 2 for science & calibrators
 - Attach Finding Charts
 - Write README
- => Submit material to ESO within the deadline**

Visitor Mode To Do list

- Submit mission form to ESO at least 2 month before your run
 - **Read p2 & instrument manuals**
 - **Prepare list of backup targets**
 - Submit for approval at least 2 weeks before your trip
 - Include targets more South than Paranal
 - Prepare phase 2 for science & calibrators
 - *Bring chocolate for the Gods of the mountain*
- => If you do the last two points before going to Paranal...



... you'll be allowed to bring your swimming suit ...

The calibrators

The raw fringe contrast observed in interferometry need to be calibrated to obtain the true visibility of your object.

How do we calibrate?

We measure with the same apparatus, almost simultaneously the contrast of an object with known visibility: your calibrator.

You want calibrators, you want A LOOOT of calibrators!

How do we choose a calibrator?

Three different tools available:

CalVin <http://www.eso.org/observing/etc/>

SearchCal http://www.jmmc.fr/searchcal_page.htm

GetCal <http://nexsciweb.ipac.caltech.edu/gcWeb/gcWeb.jsp>

A good calibrator

- un-resolved (point source), $V \sim 1$
- calibrator should be brighter than the target
- not too far from the science (match of the airmass, 20 min in RA and 2 degree in DEC)
- reject calibrators which are known variable or in multiple systems (binary...)
- *difference in magnitude between science and calibrator less than 1 magnitude (if possible)*

P2: choose your calibrators

- MATISSE: LM + N

- Resolving power 3 mas to 10 mas!

- Problem finding MATISSE calibrator good in both bands

- Remember to check already in P1, will help to decide if you need CAL-SCI or CAL-SCI-CAL

- Difference in your time estimation!



SearchCal

SearchCal [c1]

Query Parameters

1) Instrumental Configuration

Magnitude Band:

Wavelength (N) [μm]:

Max. Baseline [m]:

2) Science Object

Name:

RA 2000 [hh:mm:ss]:

DEC 2000 [+/-dd:mm:ss]:

Magnitude (N):

3) SearchCal Parameters

Min. Magnitude (N):

Max. Magnitude (N):

Scenario: Bright Faint

RA Range [mn]:

DEC Range [deg]:

Progress:

Found Calibrators (102 sources, 96 filtered)

Index	dist	HD	RAJ2000	DEJ2000	vis2	vis2Err	diam_chi2	LDD	e_LDD_rel	GroupSize	SIMBAD	SpType	ObjTypes	L
1	1.055E-5	95384	11 00 33.8515	-18 19 29.5824	0.067	0.052	1	18.723	10.267	0	V* R Cr	M7/8III	,AGB*,AB*,LP*,V*,Mas,IR,UV,**,*	
2	24.546	81797	09 27 35.2438	-08 39 30.9708	0.613	0.045	0.071	8.84	7.097	0	* alf Hya	K3IIIa	,PM*,V**,UV,IR,*,PM*	-1.37
3	26.217	83618	09 39 51.3622	-01 08 34.1196	0.928	0.014	0.038	3.519	9.751	0	* lot Hya	K2III	,V*,V*,UV,IR,*,	0.75
4	46.009	62576	07 43 32.3868	-28 24 39.1752	0.912	0.017	0.013	3.91	9.691	0	* 1 Pup	K5III	,V*,V*,IR,*,**	0.672
5	46.703	62745	07 44 56.9933	-15 41 50.0028	0.986	0.002	0.085	1.524	8.738	0	HD 62745	M1(Ib)	,RedSG*,s*r,V*,IR,*,	2.923
6	51.953	56618	07 16 34.9932	-27 52 52.2444	0.829	0.03	0.094	5.547	9.501	0	HR 2766	M2III	,*inCl,*iC,IR,*,	0.134

Filters

Reject stars farther than : Maximum RA Separation (mn) : Maximum DEC Separation (degree) :

Reject stars with magnitude : below : and above :

Reject Spectral Types (and unknowns) : O B A F G K M

Reject Luminosity Classes (and unknowns) : I II III IV V VI

Reject Visibility below : vis2 :

Reject Visibility Accuracy above (or unknown) : vis2Err/vis2 (%) :

Reject Variability

Reject Multiplicity

Reject Invalid Object Types

Diameter quality : Maximum chi square : Maximum relative error (%) :

searching calibrators... done. 338 M Provided by JMMC



List of Calibrators

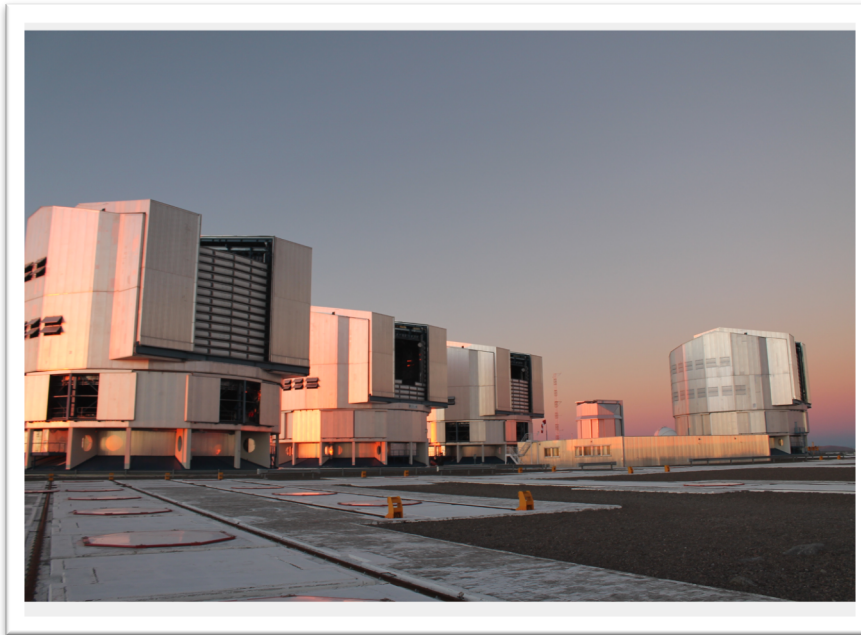
References

No.	Name	R.A. (h,m,s)	Dec. (d,m,s)	Ang. Dist. (deg ^o)	Angular H_Diam. (mas)	pmRA (mas/yr)	pmDEC (mas/yr)	Plx (mas)	ePlx (mas)	H_MAG	Coude V_Mag	IRIS K_Mag	Spectral Type	Qual. Flag	Normalized Visibility ave ± err range	Loss of Corr.Mag. ave ± err range	Rise-Set Duration (hrs of HA)	Delayline Min:Max	Culmination (hrs of HA) MaxAltitude	Shadowing
1	R For	2 29 15.00	-26 5 55.00	0.0	9.000 ± 0.000					2.28	7.50				0.56 ± 0.000 0.55-0.59 plot dat	0.64 ± 0.00 0.66-0.58 plot dat	-2.00 - 2.00 4.00	-21.6 : -7.8 plot dat	0.00 88° plot dat	0% plot dat
2	HIP 11495 simbad	2 28 15.67	-26 25 48.79	0.4	0.424 ± 0.006	15.80	52.14	4.99	0.60	5.33	7.64	5.25	G9.00(III)	1	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.5 : -7.7 plot dat	0.00 88° plot dat	0% plot dat
3	HD 15660 simbad	2 30 28.59	-26 45 3.16	0.7	0.203 ± 0.003	5.98	-16.45	0.00	0.00	6.94	9.26	6.77	G9.00(III)	1	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.3 : -7.6 plot dat	0.00 87° plot dat	0% plot dat
4	HIP 11418 simbad	2 27 11.60	-26 49 16.79	0.9	0.126 ± 0.002	-2.36	-41.67	5.50	1.08	7.68	9.11	7.62	F9.00(V)	1	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.3 : -7.6 plot dat	0.00 87° plot dat	0% plot dat
5	HD 15108 simbad	2 25 21.24	-25 54 28.30	0.9	0.307 ± 0.006	-8.32	-1.89	0.00	0.00	6.17	9.04	6.02	K3.00(III)	2	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.7 : -7.9 plot dat	0.00 88° plot dat	0% plot dat
6	HIP 11887 simbad	2 33 17.13	-26 17 27.58	0.9	0.849 ± 0.021	9.79	-3.28	3.17	1.00	4.16	7.74	3.94	K4.50(III)	1	1.00 ± 0.000 1.00-1.00 plot dat	0.01 ± 0.00 0.01-0.00 plot dat	-2.00 - 2.00 4.00	-21.5 : -7.7 plot dat	0.00 88° plot dat	0% plot dat
7	HD 15974 simbad	2 33 20.75	-26 13 57.30	0.9	0.159 ± 0.002	-3.00	-26.75	0.00	0.00	7.35	9.44	7.26	G8.00(III)	2	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.6 : -7.8 plot dat	0.00 88° plot dat	0% plot dat
8	HD 15738 simbad	2 31 4.88	-25 15 33.51	0.9	0.112 ± 0.002	85.59	-10.90	0.00	0.00	7.77	8.72	7.76	F4.00(V)	2	1.00 ± 0.000 1.00-1.00 plot dat	0.00 ± 0.00 0.00-0.00 plot dat	-2.00 - 2.00 4.00	-21.9 : -8.0 plot dat	0.00 89° plot dat	0% plot dat

After your run

- Service mode
 - Answer ESO survey about your experience

- Visitor mode
 - Fill in the End-of-Run report



The system needs feedback to improve!

