

[Fink Brazil Workshop](#)

Suggestion of points for the round table on:

[Future of Fink @ Brazil](#)

Thursday, 9 May, 16:00h - 17:00h (BRT, UTC-3)

Panellists:

[Clecio de Bom](#)

[Emille Ishida](#)

[Martin Makler](#)

Chair: Bernardo Fraga

Feel free to add below issues you would like to be raised during this round table:

- What do you want to see in Fink that does not exist right now?
- What are the main challenges you find accessing Fink data?
- Decentralisation of development
- Capitalise of what has been done before, from the expert and as well as the Fink side

- Opportunities to:
 - Involve the Brazilian community in new exciting science in the time-domain, multi-wavelength, multi-messenger astrophysics
 - To broaden the Brazilian participation in LSST Science
 - To involve the ecosystem of telescopes with Brazilian participation (at LNA + SOAR + Gemini)
 - To collaborate with the worldwide ecosystem of follow-up telescopes
 - To involve institutions in Brazil, such as CBPF, LNA, and others
 - To contribute to FINK with: science cases, modules, infrastructure (software and, specially, hardware)

- Consider:
 - Sociology of the community (including LSST...)
 - Level of funding well matched to FINK scale (?)
 - Work on formal collaborative proposals
 - It's a nice place!

- Also, awareness and contribution to other brokers (e.g. ALerCE)
- Fink@Argentina: all of the above

Notes of the discussion

The actors:

[BF] Bernardo Fraga

[CB] Clecio de Bom

[EI] Emille Ishida

[MM] Martin Makler

[JP] Julien Peloton

[MP] Maria Pruzhinskaya

[LN] Lilianne Nakazono

[MP-L] Mariana Penna-Lima

[PD] Phelipe Antonie Darc de Matos

[BF] How Brazil participation in Fink will help to make your dreams true?

[CB] To make discoveries out of Fink. We can use our observational facilities.

[MM] The dream is to involve Brazilian researchers. By cross-matching the information from different messengers, putting all that together we will make a new science. Some people go abroad and lose contact with researchers here. Fink and Rubin can help to keep these contacts. Fink also helps us to join LSST science. There is a connection to the ecosystem of telescopes. But Brazil can also contribute to Fink, we have a lot of human power.

[EI] I want to be sure we will not use the opportunity. There will be a lot of people applying for the same resources when LSST is on. And we are in a good position to make good planning now. ZTF helped a lot. But ZTF is in the north, all the follow up resources we used – are there.

[BF] What Fink Brazil could do for you?

[Cris] My dream is to have more interaction with your team, more personal conversation since it helps science.

[BF] Tomorrow we will have the office hours where you can interact with us.

[EI] Last year there was a meeting in Chile of brokers. The idea was to try to understand what is a strength of each broker, not to do the same things. That all needs coordination. I agree, conversation is important.

[JP] Two things: detection and modelling. Fink provides a lot on the detection side. But we cannot do the characterization for you and it is where I see the contribution from Brazil. Here in Brazil you contribute to all science cases, it would be very useful for Fink.

[MP] I'll be pragmatic. During this week I learned that Brazil has not only a lot of observational facilities, but also strong expertise in machine learning and pipeline development. I would like to have someone to help with the infrastructure and ML part in the anomaly detection module. Also, it would be nice to have some non-supernova experts but interested in other kinds of objects like AGNs, variable stars etc.

[LN] I and Gustavo work in SPLUS, we are developing a lot of pipelines. My dream is to collaborate for software development. Do you have any meetings devoted to software discussion?

[JP] There is no such mailing list. We have few people working on the technical aspects. Sometimes we organise hackathons. We decide the goal before and for one week we do only that. I can make a tutorial or webinar to explain the pipeline and to teach how to use Fink.

[MP-L] Is there Fink GitHub?

[JP] Yes. <https://github.com/astrolabsoftware/>

[PD] I want to see a list of the things that should be done for Fink.

[MP] I have a wishlist for the AD module, it would be nice to have it on the website.

[EI] It is a nice idea to have a wishlist. Some notes for young people: if you develop a science module, we will help you to write a methodological paper about it. We understand that to have real recognition you need to write a paper and we would be happy to help you with that.

[MP-L] About the development of the tools. In DESC if we write a code, we have an obligation to follow some rules on how to code, we should write a readme etc. There is documentation for that. Do you have it in Fink?

[JP] Some rules exist in Fink. We have some series of tests where you should run your code.

[BF] SOAR and Gemini are big telescopes – you write a proposal, but there are a lot of small class telescopes. How should this cooperation work, within a proposal or one can just send a list of objects to observe by email? Formal or not?

[CB] If we build a collaboration with small telescopes, it would be nice to have a focus on the specific science cases. It will be useful to have a sort of formalization.

[MM] For large telescopes, there is a AEON network. AEON is a way of making automatic use of telescopes. If we plan observing time within this, we need to write a proposal. For the small telescope – one possibility is to offer a telescope to follow up LSST alerts, but for that LSST should give some data rights (membership). Or another possibility of exchange: I'll make your telescope robotic and you will give me some time for follow up.

[CB] I have a dream to have everything automatized: there is an alert and then it will be automatically classified without human interaction.

[EI] I am sure that there are people that will benefit from Brazilian facilities.

[CB] I want to complement Martin. From one side it sounds good. But it makes the Brazilian community lose control. It is tricky. We have unique facilities. You can be without data rights, but it will motivate you to make your own science with these instruments.

[BF] Before this meeting a lot of people here did not know what Fink is, now they know. The meeting was a success. What will be your final remarks?

[MM] Future is bright for Fink and Brazil. We have to engage with the community. Small telescopes are the key, if we lose one telescope under our control, it is not a big price.

[CB] Yes, it could be done. But also in Brazil it is a high achievement to put people in the same room. This can bring more division in the community. My concluding remarks – it is very important to engage people, especially the young ones. We are trying to build the community out of Fink. Infrastructure of Fink is great. We also have follow-up resources and there is an interest in these instruments. We have to organize ourselves. We are a small community here. I wish to have good stable collaboration that helps us grow together as a community of transient science in Brazil.

[EI] Meeting was great. Thanks Clecio. When we agree, it is amazing – it is a nice environment to work in. I really want to introduce the Brazilian way of doing things in Fink. If we can combine different cultures and environments – and we have an opportunity to do it, this is great. We have a lot of plans and new projects discussed during this week. I really want to have first stones that are needed to push these projects. The office hours tomorrow will be the first step to do it.