

THE PROAM INCENTIVE MULTI-YEAR ACTION

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Abstract. The ProAm Incentive Multi-Year Action (IMYA) of the Paris Observatory manages scientific actions in the framework of Professional-Amateurs collaborations. The goal is to promote collaborations between professional and amateur astronomers on any astronomical topic and with any technique. The 2022 budget of the ProAm IMYA is of 25.000 euros and covers travels of Paris Observatory members, short-term invitations of professional or amateur astronomers, work meetings, material and internships. We will present details and progress for the 4 projects that have been selected after our 2022 Call for Proposals, and funded. We will also open the discussion for ideas for the ProAm IMYA.

Keywords: proam, collaboration

1 Introduction

The ProAm Incentive Multi-Year Action (IMYA) of the Paris Observatory manages scientific actions in the framework of Professional-Amateurs collaborations. The goal is to promote collaborations between professional and amateur astronomers on any astronomical topic and with any technique.

We had first discussions about a ProAm Action with the Paris Observatory in 2017, but we had to wait the Observatory actions reorganization in 2021 for the IMYA to be accepted. In this framework, we exposed the context, in particular the time pressure for the professional telescopes, the number of nights materially allocated, the delays between requests and observations, and the cost. We then exposed as a conclusion that numbers of professional projects need regular observations, a great responsiveness, and a particular spatial distribution for peculiar events. Thus, professional activities alone cannot meet the real needs anymore.

On a first hand, some astronomers already worked with amateurs for different scientific projects : the BeSS database, mutual phenomena campaigns, Lucky Star... but each one with specific non-professional teams without any communication or information sharing between them. On the other hand, other projects were developing and it would have been more efficient that they could benefit from an experience with amateurs and a better communication sharing or organization.

2 Presentation of the ProAm Incentive Multi-Year Action

The ProAm Incentive Multi-Year Action (IMYA) of the Paris Observatory has been accepted in 2021 and is based on the statutory missions of the Observatory:

- Professional and non-professional astronomers are gathered for scientific projects.

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- Professional astronomers contribute to the training of amateurs with missions, dedicated seminars and annual schools.
- Amateurs support the professional astronomers for their projects, allowing to share mutual results.

For its management, the IMYA has a budget for the 2022-2024 period. We speak of 75 k€ that will be allocated over the 3-year period through Calls. Table 1 shows the distribution of the corresponding budget.

Table 1. Budget of the IMYA for the 2022-2024 period.

Year	Operation	Material	Total
2022	15 k€	10 k€	25 k€
2023	10 k€	15 k€	25 k€
2024	10 k€	15 k€	25 k€

The desired effect is essentially structuring via a common synergy. First, we look for a better communication in destination to the non-professionals astronomers to increase the efficiency of current and future collaborations. Second, we work to federate the different communities of amateurs around projects of the Observatory. Our final objective is to organize and give an official framework to ProAm collaborations within the Paris Observatory over 3 years, and then to see the terms of a “renewal” on a larger scale.

3 2022 funded projects

For its first 2022 Call, the IMYA received 5 proposals and its SOC decided to fund 4 of them (Figure 1). We were also contacted by many professional and amateur astronomers who wanted to get information for the future of the Action. The available budget could be used to cover missions, short-term invitations, work meetings, necessary materials for the project, trainees.



Fig. 1. Logos of the 4 projects funded by the IMYA in 2022.

Eligibility criteria were the following:

1. The project had to be a collaboration between professional and amateur astronomers, including at least one member of the Paris Observatory. This included members of GEPI, IMCCE, LERMA, LESIA, LUTH, SYRTE, USN, UFE as well as the laboratories for which the Paris Observatory is a secondary administrative supervisor (APC, LPP, OSUC). Professional and amateur astronomers from any institute and country were welcome in the proposing team.
2. The project had to be an astronomical research project. This included direct scientific collaborations as well as citizen science.

3.1 2SPOT program

The 2SPOT program is directed by a non-profit organization (<https://2spot.org/FR/>). The organization is involved in many collaborations in various programs of spectroscopy. It was represented for the Call by a team of 5 amateurs, and one professional astronomer of Paris Observatory. The scientific program dealt with the spectroscopy of Be stars from the southern hemisphere (originality), and the update of the BeSS database (<http://basebe.obspm.fr/basebe/>).

The IMYA funded a controlling subsystem with optic fibers and auto guidance.

3.2 LUCY program

The LUCY program is in direct link with the NASA LUCY space probe. It was represented for the Call by a team of 4 amateurs associated to about of 40 non-professional observers in France, and one professional astronomer of Paris Observatory. The scientific program dealt with the observation of stellar occultations by asteroids, to determine accurate astrometric positions for the improvement of trajectories and environment. The IMYA funded a set of 10 timebox to be distributed to non-professional stations.

3.3 RAPAS program

The RAPAS program is a new activity for the constitution of a proam network around the Gaia-FUN-SSO application (<https://gaiafunso.imcce.fr>). It was represented for the Call by a team of 2 amateurs, and one professional astronomer of Paris Observatory. The scientific program dealt with study and deployment of photometric methods to detect transient phenomena. The IMYA funded a set of brand new filters with original passband to be distributed to non-professional stations.

3.4 Vigie Ciel Fripon program

The Vigie Ciel Fripon program is a French well-known program coordinating a network of observers (<https://www.vigie-ciel.org>). It was represented for the Call by a team of 4 amateurs associated to about of 120 non-professional observers in France, and one professional astronomer of Paris Observatory. The scientific program dealt with the observation and research of meteorites. The IMYA funded a set of pedagogic tools for training, and seminar.

4 Propositions

We open the discussion for ideas for the ProAm IMYA using 4 propositions:

- (Collaborative) The IMYA will develop soon a website dedicated to the Action, allowing to gather all information about collaborative OBSPM programs, their needs, their actors.
- (Technical) The IMYA will soon create a unique diffusion list of all amateurs involved in proam collaborations, allowing new scientific programs to directly reach an existing and experienced community.
- Funding of collaborations with annual Call.
- Organization of biannual schools with working stations and/or annual workshops to train beginner observers and discuss proam projects.

The second Call of the IMYA will be published by the end of 2023, in the same conditions detailed in sections 2 and 3. We invite potential applicants to contact the IMYA board by email at bureau.proam@sympa.obspm.fr to anticipate the next budget, allowing us to update the distribution of the different items in Table 1 if needed.

The Paris Observatory has been the first one in France to consider the question and to allocate budgets. Even if the Action is starting, we have faced a great interest from both the non-professional community and the professional astronomers. The key is that we need such an Action to organize and gather the communities, furthermore on a larger scale since we there only deal with OBSPM projects. Our last proposition is to create a working group in 2023 to study the different possibilities for a continuity, allowing more financial and human resources in the future.