

2024 PRO-AM COLLABORATION GEMINI TABLE

T. Midavaine¹

Abstract. This paper is releasing the 2024 updated table gathering all the identified ProAm collaborations. It reviews, line after line, all the astronomical topics from shooting stars down to cosmology related projects we know in France. Along each line, the columns, allow to characterize the profile of the activities with the accuracy of the data to provide, and identify the referees and organizations attached to each topic. This is a tool helping amateurs and clubs to choose the collaborations they would like to join, according the telescope setup and the skills they are willing to reach. In another way, the empty cells could help to search new topics we may create.

Keywords: ProAm, citizen science, astronomy, amateurs, collaborations

1 Introduction

About 25 years ago I started to collect the ProAm collaborations and astronomical topics where amateurs could contribute for the Club Eclipse Paris. This data was collected in a table to build an Excel sheet to allow the selection of projects fitted to our team. Then this table was shared during meeting gathering amateurs and Clubs in France. I presented it during the 2019 100 years IAU events during the amateur day hold in Bruxelles. It is updated in a Poster for each ProAm Gemini workshop organised during the SF2A annual congress since the 2018 session in Bordeaux (Midavaine 2018). Not suitable to be graphically shown here, the latest version of the Excel sheet which could be downloaded from the Gemini website at URL:

<https://proam-gemini.fr/gemini-atelier-collaborations-pro-amateurs-2024/>

This dedicated website provides related information on each active collaborations in France. It is presented this year in the S. Neveu's poster in the S21 workshop*.

2 Brief description of the Gemini table structure

On each line a subject of collaboration is characterized on several columns. The first five identify the activity that can be performed by the amateur. The blue, green, orange and pink coloured boxes qualify projects from easy to hard, from beginner to expert. Other columns dispatch information as follows:

- Discoveries: The value gives the minimum magnitude to reach in order to make a discovery.
- Surveys: Monitoring objects over long periods of time is a strength of amateurs by their very large number, dispersed under different meteorology's and longitudes. The name of a monitoring project or monitoring method may be specified in the box.
- Evenements: Engage fans on events with the name of the campaign. In addition, the stacking of signals obtained by a group of synchronized amateurs can increase the signal to noise ratio.
- Metrologies: Amateurs can deliver reliable and repeatable measurements explained in the following 5 columns. The minimum precision required is specified and higher performance can be useful for programs.

¹ Société astronomique de France, Club Eclipse Paris, thierrymidavaine@sfr.fr

*https://proam-gemini.fr/wp-content/uploads/2024/06/B_Neveu_S21.pdf

- Astrometry: characterizes from which angular resolution in arc second, the measurement is useful for the subject.
- Photometry: characterizes from which relative precision the measurement is useful.
- Polarimetry: useful for a few rare subjects, characterizes the desired polarization rate.
- Spectroscopy: characterizes the desired minimum R-resolution power.
- Temporal Resolution: characterizes the second accuracy of the measurement of the duration or dating of the phenomenon or the time sampling of the desired acquisitions.
- Internet database management: for online database management. Hobbyists can contribute to their exploitation remotely and with their shared computing resources.
- CASTOR referent Amateur: his Astronomy Club, his Observatory and his Network.
- POLLUX referent Professional: his Observatory, Laboratory, or University. In this way, we identify a CASTOR and a POLLUX for each subject.
- Organisation or Association coordinating the subject.
- Website dedicated to the topic, if any, or the link to the Gemini web page introducing new topics in particular.
- Contact e-mail from one of the referents.
- Periodic conference on the subject.

This table can be used in a variety of ways. One aim is to enable high-school pupils, students, hobbyists or their associations to choose a topic and suitable instruments to contribute to it.

3 Conclusions

Thanks to the conferences, workshops and gatherings of the astronomical community over the years, they allow the annual release of this Gemini table. Please do not hesitate to contact me for its next update, in order to modify your project information or introduce new topics. For the time being, this board is published in French, and is therefore dedicated to French-speaking communities. It's remarkable to note that web portals dedicated to ProAm astro projects are multiplying. The IAU has just set up a Working Group ProAm with a website enabling professionals to present their subject to amateurs: https://www.iau.org/science/scientific_bodies/working_groups/professional-amateur/. Therefore we may wonder a worldwide updated Pro-Am table in English, allowing the translation of table in each countries with local amateur and professional referees.

A. Lekic, J-B Marquette, S. Neveu, and all the referees cited in the table are acknowledged for allowing the annual update of this table to be distributed in France.

References

Midavaine, T. 2018, in SF2A-2018: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, ed. P. Di Matteo, F. Billebaud, F. Herpin, N. Lagarde, J. B. Marquette, A. Robin, & O. Venot