**PROPOSAL FORM FOR A COSPAR CAPACITY BUILDING WORKSHOP**

**1. Title:**

**2. Proposer(s), including affiliation and contact information:**

**3. Summary of the proposal:**

*Not required, but if included mention here the topic of the workshop, the space missions that will be addressed during the workshop, the host, venue and possible dates of the workshop.*

**4. Proposal:**

*Below we list the items that we would like to see discussed in the proposal. You can add other topics if needed, but consider at least addressing the ones that are mentioned. (Not more than 2 or 3 pages long.)*

**Science:**

*Explain here the motivation, objectives and expected benefits of the proposed workshop. Here you can (briefly) discuss the importance of the science proposed for the region in which the workshop will be held.*

**Data and Software:**

*Explain what data and software will be used during the workshop. (Remember that there must be a space component in the workshop, and that both data and software have to be publicly accessible to the participants, also after the workshop.) How will students access the software and data? E.g., download them from Internet, for which adequate bandwidth should be available (consider the situation where 30-40 persons want to access the net simultaneously to download large data files), brought to the site on external discs, etc.*

**Participants:**

*Who are the target participants? Remember that these workshops are regional, and hence about 50% of the participants should come from countries in the region other than the country in which the workshop is organized. How many students will you host? (Previous workshops had 30-35 students.) What level should the students have? (In the past we generally accepted advanced master students, PhDs, postdocs and young professionals.)*

**Lecturers:**

*Give names of potential lecturers, and indicate whether you already have contacted them. Consider that to properly supervise the students during the practical part of the workshop you need about one lecturer per 3 or 4 students. When selecting the lecturers, consider whether they can stay for the full duration of the workshop.*

**Venue and facilities:**

*Discuss the infrastructure of the venue: e.g. lecture room with projection equipment; possible separate room(s) for the computer project; access to Internet during the workshop (e.g., speed available). Will you provide computers, or will students be asked to bring and use their own laptops for the projects? Consider also the case of students without their own laptop. If students bring own laptop, how will you ensure that all students have the necessary operating system and software installed in their computers before coming to the workshop? Consider that students may have little experience with the OS required for the project, that there are many flavors of the same OS but the analysis software may not be supported in all of them, or that computers with the same OS and flavor may not have all needed libraries installed. If deemed appropriate, include a couple of pictures of the venue and hotel.*

**Financial aspects:**

*Make a rough budget of the workshop. Consider that the trips of all lecturers plus the lodging and food of all participants during the whole workshop should be fully covered. Lecturers should have individual rooms at the hotel while students can share rooms. To maximize the benefits of the workshop for the students, we strongly encourage that lecturers and students stay at the same hotel. For the choice of the lodging and food service take into account that all participants will stay there for 2 weeks. It is also desirable that, within budget constraints, participants (students) receive financial support to cover part of their travel costs. Consider also local transportation (e.g., to/from the closest airport) if needed, and a possible excursion to a local attraction. COSPAR contribution will be up to 25,000 EUR per workshop. Based on this and the total budget, mention other sources that have already committed funds or support in-kind, or indicate which other sources you plan to approach to complement COSPAR funding.*

**The COSPAR Program of Capacity-Building Workshops**

**Introduction**

COSPAR has a regular program of Capacity-Building Workshops, which are held at a rate of about 3 workshops in each two-year period. The main objective is to encourage the scientific use of space data by scientists in developing countries. In particular, in view of the large number of extensive archives of data from past and current space missions, and the ready access to these and the associated analysis software via the internet, the typical workshop aims to provide a highly practical training in the use of one or more of these, based on current missions. However, any training activity related to science covered by one of the COSPAR commissions is eligible for support. A list of past and future approved workshops can be found at <https://cosparhq.cnes.fr/events/cb-workshops>.

This program is not directed, but relies on proposals from scientists of standing within the international space science community. Usually, the proposed workshop is expected to meet some general guidelines (see below). While COSPAR is ready to provide substantial funding, it is also expected that the host country provide a similar amount. It is hoped that the workshop will be related to either a space project, or some other strategic scientific objective in the host country, but this is by no means always possible.

COSPAR is also willing to co-sponsor workshops with other major agencies, provided these fit the general character of this program.

**The character of the workshop**

These guidelines are intended to be illustrative rather than prescriptive. There can be many good ideas that do not fit these guidelines precisely.

The typical duration of a workshop is 2 weeks. The most important objective is that participants are able to use the results of attending to improve the quality of their research after they return home. For this reason, the workshop should provide a genuinely practical training, together with the possibility of some subsequent guidance. The latter may take the form of access to a help desk operated by the space mission, or email access to lecturers. There is a Fellowship program to assist in the development of joint research projects ([COSPAR Fellowship Program](https://www.astro.rug.nl/~mariano/COSPAR/); see also below).

The workshop should be targeted at a range of participants from final year postgraduate students to young university faculty members in developing countries, usually within a broad geographical region. Practical requirements will often limit the workshop capacity to 25-35 “students” *plus* the lecturing team.

About one-half of the workshop time is usually devoted to a project which, whilst it may involve some element of collaboration with other participants, is on a topic tailored to the needs and interests of each participant, including their current research. The rest of the time will be devoted to lectures on science, software or the missions as required. It is also often good to include something on applying for guest observer time where this is appropriate.

Each participant will be allocated to one of the lecturing team who will act as project advisor for the duration of the workshop, and the participant will give a poster or verbal presentation of his or her results on the last afternoon of the workshop. Typically the ratio of lecturers to “student” participants will be about 1 to 3 and lecturers should be strongly encouraged to stay for the entire workshop to provide continuity of contact. This project is often the “seed” for subsequent collaborative research.

If the project is based on data analysis, a computer laboratory with good internet access and large enough to provide a dedicated computer for each participant should be available. It is desirable that the lecturing facilities should be separate from this laboratory. (If deemed appropriate and feasible, instead of using computers provided by the venue, the participants may bring and use their own laptops.)

All of the participants, both the lecturing team and the “students”, should be accommodated together in a hotel or guesthouse so as to maximise the benefits of casual interactions and to build up good friendly contacts. The accommodation needs to be of a suitable standard to attract good lecturers from a range of backgrounds to stay for the duration of the workshop.

There will be no registration fee. On the contrary, all participants should be offered free board and lodging, and travel grants should be available for those, particularly the more junior, “students” who cannot obtain support from their home countries. The objective should be to ensure that no well-qualified applicant is unable to attend for financial reasons. It will of course be necessary to offer all lecturers full travel costs though experience shows that agencies such as ESA and NASA will often offer to cover this cost for their staff or other lecturers describing their missions.

Because of the cost, all applicants must apply and pass through an objective, independent selection process for which an international panel should be set up. This selection should be based on scientific merit, taking fully into account the likelihood that long-term research will result from attendance at the workshop. “Students” do not need to come from countries that are national members of COSPAR (though the benefits of COSPAR membership could be stressed at the workshop!).

Every effort should be made to build an atmosphere in which the lecturing team feels willing to provide at least minimal technical advice to participants when they have returned home after the workshop and perhaps also to set up collaborative research projects. It is often the case that these arise naturally out of the projects, and the COSPAR Fellowship program exists to facilitate such research.

At the end of the workshop we expect to receive a report of the workshop, including a copy of the final program, highlights of the workshop, a group (and other) photo(s), etc., plus a detailed financial report.

**The Fellowship program**

A COSPAR fellowship program that enables short visits by workshop participants to other institutions to continue their work is also part of all COSPAR Capacity-Building workshops.  More information about this program is available at [COSPAR Fellowship Program](https://www.astro.rug.nl/~mariano/COSPAR/).  As part of organizing a workshop, we ask that one person be designated the workshop's fellowship contact; they will be responsible for advertising the opportunity to the students and helping to evaluate applications for fellowships after the workshop.  Any questions about this can be directed to the Chair of the Fellowship program, Mariano Mendez (mariano@astro.rug.nl).

**Selection procedure for workshops**

Invitations to submit workshop proposals will be made to COSPAR commissions at each COSPAR assembly. The Panel for Capacity Building (PCB) is responsible for operating the program, and proposals may be submitted to either the Chair (Carlos Gabriel, juan.carlos.gabriel@gmail.com) or to the Executive Director of COSPAR (Jean-Louis Fellous, cospar@cosparhq.cnes.fr) at any time. One of the 4 Vice-Chairs of the panel will be assigned to work with the proposers on each proposal if it is accepted.

The criteria for selection include:

*Science is within COSPAR remit?*

*Is there space data involved?*

*Missions involved are current?*

*Missions involved are producing exciting results?*

*Missions have open Guest Observer programs?*

*Quality of Archives (size, free, accessible).*

*Availability and quality of free software for analysis.*

*Is this archive supported by a “help desk”?*

*Does the workshop have regional character?*

*Data is suitable for research in the region.*

*Likelihood that workshop can lead to active research.*

*Likelihood that workshop will strengthen across-country links within region.*

*Size of relevant community in region and/or host country.*

*What is the likely educational status of host country applicants (MSc or PhD students, post doctoral)?*

*Standing of proposer/team.*

*Quality of venue if known (internet bandwidth, number of computers, audio-visual facilities).*

*Status of host country funding.*

*Can host country funds be used to support applicants from other countries?*

*Likely funding from international sources.*

*Relationship to host country or regional projects/initiatives/science policy.*

Not all of these will be applicable in every case, but still this gives an idea about what will be looked for in a proposal.

If the proposal is pre-approved by the PCB, there will be a visit to the host country by the responsible PCB Vice-Chair, to meet with the proposers and make detailed plans and formulate the necessary agreement, including the financial agreement, with COSPAR. These will then be submitted to the Executive Director for approval.