COSPAR partners with LASP for 1st COSPAR Center of Excellence

16 May 2024

The Committee on Space Research (COSPAR) is proud to announce its partnership with the Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado, Boulder, USA, designating the LASP Small/CubeSat group as a "COSPAR Center of Excellence for Capacity Building in CubeSat Technologies".

PRESS RELEASE

COSPAR-LASP collaboration: a natural choice

Partnering with LASP was an obvious decision for COSPAR. LASP stands out with its distinguished track record in space science research, having deployed scientific instruments to every planet in our solar system, the Sun and numerous moons. In particular, LASP has been at the forefront of pioneering CubeSat missions, consistently achieving remarkable success in gathering scientific data. With seven completed CubeSat missions and nine more in active development or orbit, LASP has demonstrated unparalleled expertise in this field. LASP's leadership in the International Satellite Program in Research and Education (INSPIRE), a consortium of universities/agencies around the world, has further consolidated its status as a key player in space science education.

LASP also has strong ties with COSPAR. Dr Daniel Baker, LASP's Director, has been leading the COSPAR Task Group on establishing a Constellation of Small Satellites (TGCSS) since its inception in 2020, and the Vice-Chair of this Task Group, Dr Amal Chandran, is also at LASP. Additionally, many LASP staff are affiliated with various COSPAR Scientific Commissions, reflecting a strong collaborative network.

The establishment of the COSPAR Center of Excellence aligns with COSPAR's recent efforts in small satellites, through its dedicated Panel on Capacity Building (PCB), specifically targeting institutes and universities in developing countries to engage in CubeSat technology development. The first joint PCB-LASP Small Sat summer school of this initiative will be held this year at LASP, with five COSPAR-sponsored interns from the National University of Engineering in Lima, Peru. The students will work on the COSPAR satellites which are intended to provide space weather data as part of the COSPAR Task Group for establishing a Constellation of Small Satellites (TGCSS).

PRESS RELEASE

COSPAR's Capacity Building Program

COSPAR's Capacity Building Workshops (CBW), launched in 2001, of which there are roughly three per year, are now well-established, and this year the Panel is organizing four workshops, in Thailand, China, Uzbekistan and Kenya. The main objective of this programme is to encourage the scientific use of the extensive freely available space data archives and associated analysis software by scientists in developing countries.

A typical two-week workshop aims to provide very practical "hands-on" training in the use of one or more of these data archives, enabling participants to improve the quality of their research after they return to their home institutes. The team of lecturers are encouraged to provide technical advice to participants when they have returned home and perhaps also to set up collaborative research projects. In this way, the workshops also play an important role in fostering professional links and collaborations between participants and international scientists, and are enhanced by the COSPAR Fellowship Program. So far more than 1,200 researchers and students from 70 countries have benefited from the COSPAR CBW. A list of past and future workshops can be found at https://cosparhq.cnes.fr/events/cospar-capacity-building-workshops/

Part of COSPAR's mission is to promote the exchange of scientific results at international level and encourage meaningful roles for young scientists in space research. Designating the LASP Small/CubeSat group as a COSPAR Center of Excellence is a further demonstration of COSPAR fulfilling its mission in the field of CubeSat technologies.

"Through this pioneering partnership with LASP, COSPAR reaffirms its dedication to advancing global collaboration in space science. The establishment of our inaugural Center of Excellence for CubeSat Technologies represents a significant stride towards making space exploration accessible to all and empowering the next generation of space scientists and engineers," says COSPAR President, Professor Pascale Ehrenfreund.

"It is an honor and a privilege for LASP to be named the first COSPAR Center of Excellence for Capacity Building in CubeSat Technologies," said LASP Director Dan Baker. "With science returned on all our small satellite missions to date, and a proven record of successfully miniaturizing a range of scientific instruments, LASP has become an established leader in the SmallSat revolution. We're dedicated to using this expertise to build small satellite capacity to further scientific discovery and train the next generation of space scientists."

COSPAR Chair of the Panel on Capacity Building, Dr Carlos Gabriel says: "The expansion of our capacity building initiative through this new small satellite-based programme recognises the critical importance this area can play in training young engineers and scientists in developing countries. The programme is based on multidisciplinary work and developing sustainable infrastructures in these countries through international partnerships. We have found the perfect partner for the programme in LASP and its INSPIRE capacity building

programme. They bring the experience and know-how of years of training future professionals through all phases of small satellite project development."

COSPAR a hub for "Centers of Excellence"

The official launch ceremony for the COSPAR Center of Excellence at LASP's Space Technology Building (LSTB) is scheduled for Thursday, 16 May 2024, heralding the beginning of a series of COSPAR Centers of Excellence worldwide. A second center is already planned in Europe, with the upcoming COSPAR International Space Innovation Lab in Cyprus, spearheaded by the Cyprus Space Exploration Organization (CSEO) and co-funded by the European Union and the Republic of Cyprus, promising further exciting advancements in the realm of space innovation.

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Note to Editors

COSPAR, the largest international scientific society dedicated to promoting global cooperation in space research, was established in 1958. It serves as a neutral platform for scientific dialogue among scientists from around the world. Today, COSPAR comprises 46 national scientific institutions and 13 international scientific unions, with 13,000 space scientists actively participating in its activities, including attending assemblies, contributing to panels and roadmaps, and publishing in its journals.

COSPAR's core mission is to facilitate dialogue and encourage international collaboration among space stakeholders across the globe. It operates through scientific commissions, panels and task groups that encompass all disciplines of space science, from Earth and atmospheric sciences to planetary science, astrophysics, solar and space plasma physics, and life and microgravity sciences.

A recent focus has been on strengthening ties between science and industry. This was achieved by forming the Committee on Industry Relations, which includes 18 leading aerospace companies worldwide. The Committee advises COSPAR on integrating industry capabilities into its activities, ensuring mutual benefits for both science and industry.

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PRESS RELEASE

About the Laboratory for Atmospheric and Space Physics

Founded a decade before NASA, the Laboratory for Atmospheric and Space Physics at the University of Colorado Boulder is on a mission to transform human understanding of the cosmos by pioneering new technologies and approaches to space science. The institute is at the forefront of solar, planetary, and space physics research, climate and space-weather monitoring, and the search for evidence of habitable worlds. LASP is also deeply committed to inspiring and educating the next generation of space explorers. From the first exploratory rocket measurements of Earth's upper atmosphere to trailblazing observations of every planet in the solar system, LASP continues to build on its remarkable history with a nearly $1 billion portfolio of new research and engineering programs, backed by superb data analysis, reliable mission operations, and skilled administrative support.

https://lasp.colorado.edu/

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