

# 4<sup>th</sup> SpaceLand Workshop

1-5 September 2022 - Mauritius

## APPLICATION FORM

### What

After years of pandemics, it is a pleasure to welcome you to the 4th SpaceLand Congress on 1-5 September 2022, this time in the beautiful main island of Mauritius.

The event follows on successful workshops endorsed by European institutions, organized in the past in Europe with the pro-active participation of international space technology, science and biomed research stakeholders, as per details on <https://bandiasi.almaviva.it/it/eventi/convegni/expo-congresso-spaceland>

Members, experts, friends and affiliates of entities and associations such as the International Astronautical Federation ([www.iafastro.org/membership/iaf-members-map.html](http://www.iafastro.org/membership/iaf-members-map.html)), the Lunar Exploration Working Group (ILEWG), together with EuroMoonMars, ArtMoonMars, Cafè Scientifique Mauritius, Think Steam and other valuable organizations are teaming up with SpaceLand Africa: the ultimate goal is to make this event a game-changing workshop for the future of "microgravity STEAMM" (*Science, Technology, Engineering, Arts, Math and Medicine*) and novel ground and flight facilities being made available by the SpaceLand program for STEAMM users in Mars-gravity, Moon-gravity and Weightlessness, addressing valuable applications and spin-offs for everyday's life, also catering for the needs of the general public in the Indian Ocean, Africa and South Asia.

### Why

Emphasizing the importance of STEAMM in microgravity, Mars gravity and Moon gravity for the progress of humankind is the main objective of the 4<sup>th</sup> SpaceLand workshop, with a particular focus on developing Countries where inhabitants are still far from a "space perspective", especially in these times troubled by pandemics and conflicts. Fully democratizing the access to microgravity, Mars-G and Moon-G facilities is also deemed to be a key-action to "Space-engage" populations at large, from techno-sciences to culture and arts.

New initiatives are necessary to capture people's attention, refocusing on holistic "long-term" objectives by conveying the reasons why Space programs are important for everyone: among such goals, the workshop will dwell on how to facilitate public involvement in civil space programs and microgravity STEAMM R&D (Research and Development projects) to maximise cultural returns as well as eco-sustainable commercial applications relevant to common people and ordinary citizens, e.g. by hand-on engaging local populations in the benefits of Space for everyday's life on this planet, irrespective of potentially discriminating factors such as gender, age, culture, geography, religion.



## Space for All

The values of 3G-diversity in “open-door” Space-related activities need to be spread out to all citizens, reaching out to female and male elderly, kids, people with disabilities and weak social classes: people have to be enabled to access Space tools and facilities also to familiarize with, conceive, engineer, develop and implement Space-related educational and edutainment projects together with scientists, innovators, artists, students and civil space program stakeholders in general.

The myriad spin-in's and job opportunities stemming from planetary exploration programs and microgravity STEAMM projects need to be highlighted, insofar as they can ameliorate both environment and existence on this planet: areas and themes for discussion at the 4<sup>th</sup> SpaceLand workshop will include all techno-scientific and operational aspects also related to microgravity research and planetary exploration projects with emphasis on a STEAMM-related spin-off & spin-in applications to everyday's life on the Earth. The event will also feature a unique *Space Artwork exhibit* where artists will be able to meet entrepreneurs, scientists, investors and media. All participants are also welcome, during the event, to propose experiments, art performances and STEAMM experimental facilities to board the upcoming SpaceLand flights being organized on the *world's largest single-aisle flight vehicle* at the *lowest-ever price per seat*, democratizing Microgravity for All.

**When and how:** the workshop, hosted by the most beautiful beachfront hotel *Ravenala Attitude*, will de facto be a 5-day campfire event from 1 to 5 September 2022, as follows:

- 1 Sept.: Welcome to Mauritius ! Outdoor visits and field works in Mars-like fascinating sites on the island
- 2 Sept.: Sciences, Technology and Innovation
- 3 Sept.: Habitats, astronaut training, analogs and simulation facilities & tools
- 4 Sept.: Cultures and Arts in Microgravity and Space
- 5 Sept.: Presentation of Africa's 1st Mars-G, Moon-G and Zero-G Research & Educational flight open to all workshop participants – end of the workshop with a social beach-galà dinner

Artists and scientists are welcome to expose artwork and science-related posters during the whole week.

**Purpose and relevance:** This event will enable all participants to openly discuss how to get involved in civil Space programs and microgravity STEAMM, also in light of engaging the society at large in such future-facing activities, also to ameliorate life quality on this planet. Particular consideration will be given to those Nations and populations which still somehow consider microgravity and Space as something far, awkward, futile and seemingly with no implications for individual's daily routines and personal issues. Together with IAF members knowledgeable on such matters, experts' experiences will be shared during the event, also to highlight achievements and lessons learnt related to those members of the general public who have distinguished themselves by being involved in outstanding Space-related operations, be them in microgravity STEAMM research or testing or for aerospace education and/or tourism.

**Expected outcomes:** Such a unique workshop will:

- 1) raise the awareness in international stakeholders and decision-makers of the importance of engaging the general public, especially of developing Countries, in civil Space programs and microgravity STEAMM disciplines, in particular to enhance the Earth's environment and everyday's life quality;
- 2) establishing a new set of directions for the future of such events, such as by triggering the organization of the yearly gatherings, with particular reference to entities and people of emerging and developing nations;
- 3) identifying investors for the STEAMM activities and projects shown in this workshop;
- 4) discuss on how to facilitate laypersons' access to 0-G and low-G STEAMM, expanding such opportunities



**Organization:** SpaceLand Africa, with the support of Cafè Scientifique, Think Steam and students of the University of Technology Mauritius: contact point: Jason Tonkin - Silvano De Gennaro, Mauritius  
email: SpaceLand@SpaceLand.it

### **VIP Speakers at the event**

These speakers have confirmed their presence, while more speakers are being identified: you are welcome !

**Bernard Foing:** working until 2021 as senior ESA program scientist, prof. Foing is an expert of Moon and Mars-related STEAMM and is engaged in overcoming 3-G barriers for involving youngsters and non-Space communities in civil Space programs, particularly through the IAF ITACCUS Committee, ILEWG EuroMoonMars and ArtMoonMars associations.

**Claudia Kessler:** a known female entrepreneur and visionary, Dr. Kessler recently founded a space start-up that makes space experience accessible to everyone, promoting international careers of female specialists and managers in the "Women in Aerospace Europe" (WIA-E) network, which she initiated throughout Europe, sharing her experience especially in the Space-engagement of women world-wide

**Nandu Goswami:** teaching and leading major biomed research projects at the Medical University of Graz (Austria), Doct. Goswami is a key-expert in commonalities between astronauts' health issues and elderly's pathologies related to same physiological areas: inter alia, he can best convey the relevance of life science research in Space and in microgravity for instance to address human being's longevity extension, highlighting the importance of biomed R&D involving the general public.

**Silvano De Gennaro:** working for years as Creative Director at CERN in Switzerland, Dr. De Gennaro is a specialist of scientific communication, particularly in public events, such as those organized by Cafè Scientifique Maurice, related to technology innovation as well as in young generations' scientific engagement

**Celeste Petraroli:** Managing Architect for the design and development of future SpaceLand Cities, inter alia she is an expert also in Building Information Modelling design, formerly Design Supervisor for all the facilities required by international mass media at the Olympic Games of Torino 2006.

**Jason Tonkin:** CEO and Founder Think STEAM, he is the main actor of a leading Educational Technology Hub in Mauritius, offering students access to digital technologies and other 21st Century skills development. Since its inception in 2016, his e+STEAM activity curriculum focuses on Science, Technology, Engineering, Art and Mathematics, where the "e+" ( read "e" positive) symbolises the 21st Century mindset youths in Mauritius

**Carlo Viberti:** former lead-engineer of the Astronaut Activities office of the European Space Agency, has been proposed by the Head of the Italian Space Agency as first sub-orbital astronaut-engineer for sub-orbital research flights. In 2005 became the first non-U.S. citizen to fly from the NASA Space Shuttle L.F. for the first NASA Microgravity Pathfinder Flights involving members of the general public. Has worked in weightlessness 3 times longer periods than Gagarin's spaceflight, involving the world's oldest (93 years of age), the first disabled woman and the youngest-ever (11 yr-old) life-science test subjects in zero-G, for experiments conducted also for a Nobel Prize winning scientist, with spin-offs for kids, disabled and elderly, as shown in the next pages, as reported in several documentaries by CNN TV, Italian and Swiss State TVs.



## Hurry up with your application !

Such a unprecedented 5-day “campfire workshop” is open to only **20 speakers** and maximum **50 participants**.

It will start each day with main speakers, each providing a short, multi-media keynote showing lessons learnt regarding the subject matters, setting the tone to discuss with the audience respective challenges.

For the remainder of the daily sessions, the speakers will switch to the facilitator’s role, inviting comments, insights and replying to questions from those around the room, sharing experiences with each other, with opportunities for all attendees to speak out their viewpoints and reach consensus on the way forward.

**You are welcome to participate and benefit from an early bird fee (until 15th May 2022):** please fill your data in

**FAMILY NAME:** \_\_\_\_\_ **NAME (first name):** \_\_\_\_\_

**E-mail address:** \_\_\_\_\_@\_\_\_\_\_

**I am (choose one):**

- INVESTOR / ENTREPRENEUR**
- SCIENTIST / RESEARCHER / TECHNOLOGY INNOVATOR**
- TEACHER**
- MEDIA**
- STUDENT**
- Other: (please specify) \_\_\_\_\_**

**interested in the following (pick one; if more, please number your first priorities with 1, 2, etc.):**

- Planetary exploration (robotic and crewed systems, space labs and habitats)**
- Microgravity STEAMM (science, technology, engineering, arts, math & medicine) opportunities**
- Satellite aerial-launchers and sat debris clean-up systems**
- Astronaut health, fitness, nutrition and spin-off’s to everyday’s life on Earth**
- Space Tourism, space-fashion and space-culture business**
- Africa & Asia’s first Mars-gravity, Moon-gravity, Zero-G open flight campaigns**
- Entrepreneurship and Finance for the above sectors**



## 4<sup>th</sup> SpaceLand Workshop: 1-5 September 2022

### PARTICIPANT'S DETAILS

Please type or hand-write in CAPITAL LETTERS

Family name: \_\_\_\_\_ First name \_\_\_\_\_

Entity / company / institution (if any): \_\_\_\_\_

Role / function \_\_\_\_\_

Post address (square/street, number) \_\_\_\_\_

Post code / ZIP: \_\_\_\_\_ Town \_\_\_\_\_

Province/County: \_\_\_\_\_ State / Nation \_\_\_\_\_

Landline phone nr: + \_\_\_\_\_ Mobile: + \_\_\_\_\_

E-mail: \_\_\_\_\_ @ \_\_\_\_\_

Passport nr.: \_\_\_\_\_ Valid until (dd/mm/yy): \_\_\_\_\_

I need details for the accommodation package: (YES or NO) \_\_\_\_\_ Please note the reserved rates for the accommodation:

→ The Ravenala Attitude (one of the best beachfront hotels in Mauritius !)

- ½ double couple suite: €75 per person per night on HB
- Single couple suite: €135 per person per night on HB



In order to validate my application, I hereby attach:

Proof of application fee payed to SpaceLand Africa Ltd

IBAN: MU57MCBL0944000444000798 USD (account nr. 000444000798)

→ as participant:

- Early-bird application before 11.59 pm GMT, 15 May 2022: **260 USD** + tax (15%) = US dollars **299,<sup>00</sup>**
- from 16 May 2022: 370 USD + tax (15%) = US dollars **425,<sup>50</sup>**

→ as corporate speaker:

- Early-bird application before 11.59 pm GMT, of 15 May 2022: **430 USD** + tax (15%) = US dollars **494.<sup>50</sup>**
- from 16 May 2022: **600 USD** + tax (15%) = US dollars **690.<sup>00</sup>**

I include a one page word-file summarizing my presentation with a maximum of **2000 characters**, including the **contact information** of the institution / company / entity represented

By signing this, I fully agree that my application is a contribution to the costs for the organization and the management of the 4th SpaceLand Congress and will not be reimbursed to me in any case, also in case of my last-minute absence caused by any reason.

I am signing and sending this form as PDF file, together with proof of payment of the application fee and my one page summary.

Date of signature: (dd/mm/yy): \_\_\_\_/\_\_\_\_/2022 Readible signature: \_\_\_\_\_





**Record-breaking crew-members selected among the general public, trained and brought to fly by SpaceLand team led by former ESA-zero-gravity test engineer and Space Station MIR European Technology Experiments Coordinator Doct. Carlo Viberti for *biomedicine, technology and/or bioengineering* experiments commissioned by Nobel-Prize-winner led groups, taking off from the NASA Space Shuttle L.F. (Kennedy Space Center, Cape Canaveral, Florida)**

**World's youngest kid as research test subject in zero-gravity: 11 yrs old**

**11-year-old Kim Marco Viberti** flew in 2008 as test subject for neurobiological sampling experiments related to studies on neuropathologies such as the Alzheimer's syndrom, commissioned to SpaceLand by the European Brain Research Institute led by dr. Rita **Levi Montalcini (Nobel Prize winner)**, Italian State Health Institute (ISS), Italian State Research Center (CNR) and University of Milan (I); results reported in scientific paper issued for the European Low Gravity Research Association's Congress in Bonn (D).



Left : free-flying break between sampling, right: interview by Italian State TV "TG1" prime news report

**World's oldest man in zero-gravity: 93 yrs old**

**93 year old man**, flying as test subject for bioengineering experiments commissioned by the **Don Gnocchi Science Foundation's Bioengineering Center of Milan** (Image from CNN TV news report)



Images show footages from CNN TV reports

**World's 1st disabled for technology tests in zero-g**

**100% disabled woman** as test operator for hand-free ICT control systems commissioned by **AIDA Modena ("Informatic tools for disabled and elderly")**



Footage showing Elma operating at the SpaceLand technology payload rack, broadcasted by the Italian State TV "RAI2" and Mediaset TG 4 news reports

SpaceLand / Carlo Viberti have been awarded, inter alia, the following prizes:

- European "EOS" Award for Innovation Policy, by the European Commission
- Prize "Torre di Castruccio" - Gold Medal by the President of the Republic of Italy
- Prize "Etica ed Impresa" by Italy's Federmanagement and AssoQuadri associations
- Italian Aeronautics and Astronautics Association Award
- Finalist rank for Italy's ConfCommercio "Innovation Prize"
- and several other awards

**First non-US citizen taking off from NASA Space Shuttle L.F.**

SpaceLand Flight Mission Commander **Eng. Doct. Carlo Viberti** is the **1st non-U.S. citizen** authorized to take off for microgravity research flights from the NASA Kennedy Space Center. He has been formally proposed by the **Head of the Italian Space Agency** to fly as **1st Astronaut-Engineer** on the **first sub-orbital research flight campaigns**. The program has been presented with guest lectures in Oxford at the 1st UK Space Agency's workshop on microgravity and the 1st Space Commerce Summit in 2013 in London with NASA



Left: footage from RAI and Swiss State TV ; right: Viberti with Space Shuttle pilot Rick Scobee, possible crew of first sub-orbital research flight, being endorsed by the ASI President

**Underwater Training Camp for Italian Space Agency & University of Cagliari's Lunar exploration technology programs**

Footages from Italian State TV documentaries broadcasted on RAI 2 TV (search for videos on U-Tube and Google key words "SpaceLand Viberti")

