

IAF SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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CHASM: FOSTERING COLLABORATION AND RESEARCH ON EARTH FOR SPACE  
EXPLORATION WITH SPACE ANALOGUES**Abstract**

Analogue space missions are a pillar of planetary human exploration, providing a source of diverse research on exploration mission concepts, experiments, habitats and procedures. However, many analogue space missions suffer from a lack of communication and coordination, leading to redundancy in experiments, lack of public awareness, limited crew recruitment, and reduced funding. CHASM, the Community on Human Analogue Space Missions, aims to fill this need by building a cohesive network of organisers and participants in analogue missions. CHASM began in April 2022 with a hybrid conference at the University of Cambridge (UK), allowing 12 analogue space mission organisations to formally meet for the first time. In addition to talks and networking, it included collaborative workshops and an open session to promote public engagement. This was supported by groups across the space domain including the British Interplanetary Society, Mars Society UK and the Cambridge Philosophical Society.

Since, CHASM has organised two hybrid workshops to enable collaboration and discussion on best practices in analogue space missions – at Lunares Research station in Poland in October 2022 and Astroland Interplanetary Agency in Spain in February 2023. These workshops have included themes of experiments, habitat design, life support systems, crew safety and analogue spacesuits. As well as workshops, these sessions have included panel talks on astronauts with disabilities and astrobiological research on cyanobacteria. Over the past year, CHASM has added Astroland, UKAM, Habitat Marte, EuroMoon-Mars and EuroSpaceHub to the network of partner organisations. To further enable cross-collaboration between analogue space missions, CHASM maintains an online database for sharing of vital information. This provides a shared platform for easy access to goals, recruitment campaigns, experimental systems and updates for both the general public and mission participants.

CHASM has allowed for over 250 people, 20 different organisations over 4 continents to connect and collaborate. Organisations were able to recruit analogue astronauts and organisers from other missions, and space architects and scientists could share their findings. CHASM provides networking, awareness and knowledge to the analogue space community via its regular conference and workshop proceedings, recordings and online database.

Current and future efforts of CHASM include providing university students with a facilitated access to analogue space missions so that students can perform research as well develop soft skills such as public speaking, team management, media outreach and logistics. This program supports the global goals of enabling cutting-edge space research while inspiring the next generation of space leaders.