## IAF SPACE EXPLORATION SYMPOSIUM (A3) Moon Exploration – Part 1 (2A)

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## INTERNATIONAL COOPERATION OF THE CHANG'E-4 MISSION AS A CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT OF SPACE SCIENCE AND TECHNOLOGY

## Abstract

Composed of 2 launches in 2019, one for the data relay spacecraft and the other for the Probe, the Chang'e-4 mission has achieved 2 firsts of the humankind: the first data relay communication based in the second Lagrangian Point of the Earth-moon system and the first soft landing on the far side of the moon. The Chang'e-4 mission has 13 scientific instruments, 4 out of which are international payloads from Germany, Sweden, the Netherlands, and Saudi Arabia.

For the first time extensive international cooperation formed an integral part of a lunar exploration mission of China. Cooperation with the Netherlands, Saudi Arabia, Sweden and Germany is briefly introduced. Scientific data sharing mechanism of the mission is also given. A new international space cooperation model of China's lunar and deep space missions is generalized. Contribution of international cooperation of the Chang'e-4 mission to the sustainable development of space science and technology and also to the realization of the Sustainable Development Goals (SDGs) is presented.

A series of lunar and deep space missions have already been planned in China. Future flight opportunities aboard lunar and deep space missions of China, where the international space cooperation model of the Chang'e-4 mission will be be applicable, are introduced. Under the principle of "co-consulting, co-constructing and co-sharing", partners from all over the world are welcome to join these missions.

In order to enhance international cooperation in lunar and deep space exploration and further contribute to the peaceful uses of outer space, recommendations on how to implement the Space2030 agenda are given.