

CALL FOR SESSIONS

PLANETARY GEOSCIENCES

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ABSTRACT SESSION

Planetary geosciences represent a fundamental research topic within the Earth System Sciences. They provide an in-depth understanding, from a different and complementary perspective, of the formation and evolution of our planet.

Planetary geosciences have stimulated the advancement of knowledge in several areas of the geological sciences, such as in the study of primordial terrestrial environments and in the study of extreme environments (e.g., hydrothermal springs in the deep waters of the oceans). They also attempt to answer fundamental questions, such as the origin of life on Earth, the possible existence of life forms outside of it, and the possible availability of habitable environments for humans. The Geological Sciences, in turn, form the basis for interpreting data on the solid bodies of the Solar System.

Planetary geosciences study the physics and chemistry of planets and minor bodies and their evolution. Topics include planetary geomorphology, planetary geodynamics, planetary atmospheres and climates, the geochemical analyses of extraterrestrial materials present on Earth, and astrobiology. The main activities related to planetary geosciences are similar to those of geological sciences: mapping, sampling, data analysis, laboratory activities, and modeling of phenomena.