



Current activities of the Mars geoscience group at the Space Research Centre PAS

Prof. Daniel Mège

Space Research Centre PAS

[PRESENTATION]

The group continues studies of Valles Marineris, which offers an unique view of the geologic processes that occurred since the earliest stages of Mars evolution. Nonlinear spectral unmixing of intensely deformed bedrock in Valles Marineris has revealed with unprecedented accuracy the composition of the bedrock, and its alteration, and geological implications will be discussed. Determination of the physical properties of the Valles Marineris shallow subsurface using the SHARAD orbital radar of MRO is a long-term effort which is now going to first results. The group is also involved in the definition of new mapping standards in volcanic regions within the framework of Europlanet's (GMAP) activity, and a case study is ongoing at Arsia Mons, one of the main Tharsis shield volcanoes. A new H2020-funded, drone-mounted P-band radar project, designed for a lander mission, will be presented.