ID de Contribution: **82** Type: **Oral presentation**

CO2 Ice Properties using CRISM Data: Implications for Martian Gullies Formation Mechanisms

vendredi 11 avril 2025 10:00 (15 minutes)

The study of Martian ices provides key information into the formation mechanisms of gullies on Mars. Using infrared spectroscopy data from CRISM (Mars Reconnaissance Orbiter, NASA), this work focuses on seasonal CO2 ice deposits near Mars' poles, with particular attention to Sisyphi Cavi, where active gullies are observed. The properties of CO2 ice are characterized by evaluating its translucent or granular structure, comparing ice thicknesses predicted by a climate model from LMD to optical paths derived from CRISM observations. By assessing these ice properties, the study aims to offer valuable insights into the mechanisms driving gully formation, including CO2 sublimation and the possible role of liquid water.

Astrophysics Field

Mars, Surface Geological processes, IR spectroscopy, Photometric modelisation, CRISM

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