ID de Contribution: **53** Type: **Oral presentation**

Venus' atmosphere: an overview before next exploration missions

mercredi 28 février 2024 11:00 (30 minutes)

During the last 15 years, our knowledge about the atmosphere of Venus has expanded greatly, mainly due to the contribution of two dedicated orbiters: Venus Express from ESA (2006-2014) and Akatsuki from JAXA (2015-present). Both missions included a comprehensive payload which enabled them to measure key parameters about the atmosphere from the surface to the topmost layers. Among their discoveries are a much greater than anticipated spatial and temporal variability, partly due to unsuspected coupling between the surface and the upper atmospheric layers at cloud top level. They also highlighted gaps in our knowledge, some of them long standing like the nature of the unknown UV absorber. Undoubtedly, all these results contributed to the renewed interest for the planet Venus that was confirmed by the selection, in 2021, of three major space exploration missions targeting the planet in the 2030s (DAVINCI and VERITAS from NASA, EnVision from ESA). This review talk will summarize our current knowledge about the atmosphere of Venus including some key outstanding questions. It will then proceed in a review of the planned atmospheric investigations from the above mentioned selected missions, as well as others.

Astrophysics Field

Day constraints

Orateur: Dr MARCQ, Emmanuel (LATMOS/IPSL)

Classification de Session: Invited talk: Emmanuel Marcq