

Planet Mars V
Les Houches 3-8 May 2020
First announcement

Over the past fifteen years, our understanding of Mars state and evolution has made considerable progress, with the successful operation of many space missions, either in orbit or at the surface of Mars (Mars Express orbiter, the MER Spirit and Opportunity rovers, Mars Reconnaissance Orbiter, the Phoenix lander, the Curiosity rover, the MAVEN orbiter, the ExoMars/Trace Gas Orbiter and finally InSight). Thanks to these new available data, we are now in position to address the main questions regarding our sibling planet Mars. While Mars Express and MRO have allowed us to better understand the planet's geology, mineralogy and subsurface composition on a large scale, the MER and Curiosity rovers have provided us with in situ analyses of rock samples and their environments. The atmospheric escape rate and mechanisms have been investigated by the Mars Express and MAVEN orbiters. TGO has started the exploration of minor atmospheric species and the InSight mission has started to bring information about the internal structure of the planet.

The workshop "Planet Mars V" will be the fifth edition of a series which has taken place in the Center of Physics in Les Houches since 2003. These workshops were organized to bring together senior scientists, young scientists, postdocs and students in order to optimize the analysis and interpretation of space data, and to prepare the community for the best exploitation of forthcoming missions. As in the case of the previous editions, the format of the workshop will encourage discussions. Leading scientists in the interpretation of data and in modelling processes will present their views on key topics, such as (1) internal structure and magnetism; (2) volcanism, geomorphology, geology, mineralogy and petrology; (3) atmospheric cycles, water history and atmospheric escape. Special attention will be given to the prospect of future planetary missions to Mars. A session of comparative planetology will also include discussions on Venus, the Earth and Titan. Posters from students and scientists are encouraged ; they will be displayed and discussed during dedicated poster sessions and coffee breaks.

Please note: Unfortunately, the EGU 2020 General Assembly exceptionally occurs in May, and takes place at the same time as the *Les Houches* Workshop. Due to the strong pressure on the calendar of the workshops in Les Houches, we have not been able to change the dates of our workshop.

Preliminary list of speakers

D. Baratoux (GET/IRD), J. Carter (CNRS-IAS), V. Dehant (Royal Observatory of Belgium), F. Forget (CNRS-LMD), O. Korablev (IKI), N. Mangold (CNRS-LPG Nantes), F. Montmessin (CNRS-Latmos), C. Sotin (JPL-Caltech), A.-C. Vandaele (BIRA/IASB), J. Vago (ESA), B. Jakosky (LASP-Colorado), D. Breuer (DLR), C. Quantin-Nataf (University Lyon), B. Banerdt (JPL)

Organizing Committee

Thérèse Encrenaz, Directeur de recherche émérite CNRS, Observatoire de Paris, Meudon, France

Christophe Sotin, Chief Scientist for Solar System Exploration, JPL-Caltech, Pasadena, USA

Olivier Witasse, Project Scientist, European Space Agency, ESTEC, The Netherlands

Anny Glomot, Chief Administrator, Centre de Physique, Les Houches, France

Registration and Important dates

First Announcement	June 14, 2019
Deadline for registration and poster abstract submission	November 1, 2019
Notification and final programme release	January 15, 2020
Workshop	May 3-8, 2020

Practical information

Les Houches is a remote area in the French Alps. From the dining room, you will enjoy an incredible view on massif du Mont-Blanc. For more information see: <https://www.houches-school-physics.com/>

Accommodations at Les Houches are very good (bedrooms with bathroom accommodated in a number of chalets). Three meals in a common dining room are included in the accommodation fees each day of the workshop. The cost for meals and lodging is 425 Euro per person for the whole week. A registration fee of 200 Euro (to be confirmed) will cover the organization of the workshop.

For further information please visit the web page
<https://www.cosmos.esa.int/web/planet-mars-5/home>

Registration

Registrations will be done through the webpage
<https://www.cosmos.esa.int/web/planet-mars-5/registration>

The deadline for registration is November 1, 2019. Students and postdocs are especially encouraged to submit a poster. As the number of participants is limited to 70, a selection may have to be made by the organising committee. The notification will be sent by January 15, 2020.

For specific questions, please contact [owitzasse @ cosmos.esa.int](mailto:owitzasse@cosmos.esa.int).