Martian mantle mineralogy

With the exception of the Moon, Mars is the only other planetary body for which we begin to have an integrated vision to its mineralogy. A range of space missions, including remote sensing from orbiters and local sensing from landers and rovers, provided and are still proving a wealth of information about composition and structure of the materials forming the planet. If more data have been acquired on minerals at the surface of the planet and, overall, on subsurface and crustal minerals, very recent seismological observations provided by the mission InSight allow now also to more pertinently address mantle mineralogy.

In this session we would like to make the point on current knowledge of Martian mineralogy, welcoming contributions addressing physical and chemical properties of minerals and rocks by direct and indirect measurements on Martian samples (space missions and Martian meteorites), the complementary laboratory measurements on analogues, as well as thermodynamic models, all across the variety of geological settings and thermodynamic conditions proper to Mars.