

Exploring Mars and Earth Subsurfaces Using Low Frequency Sounding

> Radars:

> Deserts Unseen Geology

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> Over the past decades, radar sounding and imaging techniques have

> provided

> new insights into the understanding of surface and subsurface physical

> properties

> of the Earth, Moon, Venus, Mercury, and Mars - as well as numerous

> smaller

> solar system bodies. In this seminar we will focus on the Martian and

> earth arid regions cases in term of exploring the potential presence

> of

> shallow and deep aquifers. New results obtained from the low frequency

> radar subsurface sounding experiment MARSIS on board the Mars Express

> mission will be presented revealing geomorphological features that can

> be

> used to understand the Martian paleo-environment. Results from recent

> radar sounding experiments, both ground and airborne, carried through

> different terrestrial Mars analog environments will be discussed to

> assess

> the potential of mapping fossil aquifers on large scales.