



LUNARS – Lunar Unique Netted Advanced Radar System

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Lunar-based multi-frequency and multi-polarisation netted radio and radar facilities and observation clusters in space will be helpful to find solutions to problems in space physics and to detect long-term environmental changes and will bring new observation data of the early stage of Universe. The Moon offers an excellent platform to located the radio waves instruments for monitoring the electromagnetic emissions in near Earth environment. The innovative new radio measurements on board of satellite and the new type LOFAR-LOIS radio diagnostics, comprising wide band, and vector sensing radio receivers with full three-dimensional polarization coverage located on the Moon's surface can improve our knowledge about fundamental properties of turbulent plasma. The priority for future science experiments on the Moon is to construct low-frequency radio astronomy telescope. To understand the properties of the solar terrestrial environment and to develop a quantitative model of the near Earth environment and to monitoring the low-frequency emission of Sun, Jupiter, and Saturn and to characterize the properties of the lunar environment with respect to noise background, dielectric properties of the moon surface, and to monitoring cosmic radio sources at wavelengths not accessible from Earth it necessary to design and build new generation multi-point and multi-type sensor diagnostics.