



New Possibilities of the Ground-Based Solar System Investigations at Decameter Wavelengths

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Traditionally ground-based investigations of the solar system at decameter wavelengths have been concentrated around studies of the sporadic radio emission from the Sun and Jupiter. Progress of means and methods of the modern decameter wavelength radio astronomy including opportunities, which will be opened by developing future LOFAR, and LOIS systems, opens more wide fields of investigations of already known objects as well as new goals. Among them are radio emission from the quiet Sun, solar corona and solar wind studies with scintillation method, radar technique, and radio recombination lines of highly excited atoms, search for Saturn Electrostatic Discharge (based mainly on the Cassini data), search of the sun-like and planet-like magnetized objects (exoplanets, active stars, flare stars, white dwarfs, red dwarfs, etc.). The results and corresponding discussions of the similar investigations carried out at the biggest existing decameter wavelength radio telescopes UTR-2, URAN, and NDA equipped with registration devices of new generation are presented.