



## **SOLAR SYSTEM STUDY BY NEW METHODS OF THE DECAMETER RADIO ASTRONOMY**

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During last years an intensive investigations of solar system objects were carried out with world largest decameter radiotelescopes UTR-2 and URAN (Ukraine), NDA (France), SURA (Russia) as well as with new high performance back-end facilities. New types and specialities of sporadic Solar and Jovian radio emission were detected. High efficiency of scintillation method implementation for Solar wind diagnostic was proved. New radar experiments were carried out at frequency 9 MHz for the Sun and Moon. Future tasks are formulated for Solar system and other transient phenomena researches. In present time these investigations are especially important first of all in the frame of LOFAR system arising in 3-5 years. Current investigations with the existing largest radiotelescopes can be considered as precursors of the future LOFAR investigations. This concept will be realized during new European INTAS project Using of world largest decameter radiotelescopes as probe and basis for developing of LOFAR concept. Special attention is putting on the possibilities estimations of radar experiments for Solar corona, CME and Moon (LOFAR-LOIS concept development). It is interesting also the combined (simultaneous) investigations with different antennas and different frequency ranges as well as with ground-based and space systems (WIND, STEREO, SIRA, Cassini, etc.). Without doubts low frequency investigations of Solar system using the existing antennas and new methods and especially with the future systems like LOFAR have good perspectives.