

FOREWORD

The 7th International Workshop on "Planetary, Solar and Heliospheric Radio Emissions" is the continuation of an established tradition: This PRE VII conference followed previous successful international workshops held at Graz, Austria, in 1984, 1987, 1991, 1996, 2001, and 2005. This 7th workshop in September 2010 offered again the unique opportunity to discuss the observations from Cassini at Saturn and to investigate the measurements by other spacecraft and from the ground of the Jovian, terrestrial and solar radio emissions, also including studies on radiation from exoplanetary sources.

A great number of contributions regard the novel findings of the Cassini RPWS experiment on Saturn Kilometric Radiation (SKR), and in particular the enigma of the variability of Southern and Northern Saturn hemispheric SKR periodicities. For the first time also the properties of the SKR source region could be directly determined. And the Saturn Electrostatic Discharges (SEDs) have been prominently addressed, fostered by ground-based observations of the electromagnetic signatures of Saturn lightning.

Jupiter radio emission was highlighted by a new type of periodicity found in the decametric radio emission and by presentations on the new space missions JUNO and EJSM. Studies on terrestrial kilometric radiation focussed, among other papers, on theoretical studies analyzing the radio phenomenon close to its source region. Exoplanetary as well as solar radio emission exhibit an essential part in the present proceedings volume, which is followed by Instrumentation, a crucial topic in view of antenna system calibrations and new developments of radio telescopes like LOFAR.

The high standard of peer-reviewing process has been continued in the PRE "Silver Series" of the Austrian Academy of Sciences Press, and, in addition to the printed volume PRE VII, all PRE volumes I-VII will be provided on a CD, comprising more than a quarter-century of Planetary, Solar and Heliospheric radio science.

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