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First observations of the Search Coil Magnetometer on Solar Orbiter / RPW: results and performances

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The Search Coil Magnetometer (SCM) onboard Solar Orbiter is part of the Radio and Plasma Waves (RPW) experiment and measures the variations of the magnetic field between 10 Hz and 50 kHz on three axes and between 1 kHz and 1MHz in one axis. The SCM is located on the boom of the spacecraft and its signal is processed by the LFR, TDS, and HFR analyzers of the RPW experiment. These measurements are essential for the characterization of waves and turbulence in the solar wind. We will describe the first observations made by the instrument with an emphasis on its performances.