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# The solar wind angular-momentum flux observed during Solar Orbiter's first orbit

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The Solar Orbiter mission is currently in its cruise phase, during which the spacecraft's in-situ instrumentation measures the solar wind and the electromagnetic fields at different heliocentric distances.

We evaluate the solar wind angular-momentum flux by combining proton data from the Solar Wind Analyser (SWA) Proton-Alpha Sensor (PAS) and magnetic-field data from the Magnetometer (MAG) instruments on board Solar Orbiter during its first orbit. This allows us to evaluate the angular momentum in the protons in addition to that stored in magnetic-field stresses, and compare these to previous observations from other spacecraft. We discuss the statistical properties of the angular-momentum flux and its dependence on solar-wind properties.

Our results largely agree with previous measurements of the solar wind's angular-momentum flux in the inner heliosphere and demonstrate the potential for future detailed studies of large-scale properties of the solar wind with the data from Solar Orbiter.