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Survey of Jupiter's Plasma Disk from Juno Observations

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Using 30 inbound passes through the Jovian system, we combine measurements from the fields and particles instruments on the Juno spacecraft to survey the properties of Jupiter's plasma disk. Juno's orbit is particularly useful for exploring the variation in plasma conditions with latitude as well as radial distance (from ~10 to ~50 RJ). We present basic plasma properties (composition, density, temperature, velocity, magnetic field strength) to make maps of the plasma environment. Also show that on some of the 53-day orbits the plasma sheet has regular structure (density having roughly Gaussian distribution with latitude and decreasing with distance) but there are also highly irregular orbits with low or erratic density distributions.