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# Noncircular Features in Saturn's Rings from RSS Cassini Occultation Observations

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Upon completion of Cassini's Prime Mission on July 1, 2008, the Radio Science team obtained twenty-four separate occultation observations taken between 2005 and 2008. Here, we present measurements of ring features in a subset of multiwavelength diametric occultations in Revs 7, 8, 10, and 12. Our ultimate goal is to obtain accurate kinematic models for a range of sharp features, including ringlets, gaps, and edges. As a first step, we have computed the geometry for these multiwavelength diametric occultations from 2005. We assume the reconstructed trajectories provided by the Navigation team, which for these events are accurate to $\sim \pm 2$ km. For several noncircular features identified in Nicholson et al. 1990 and used by French et al. 1993, we measured radial positions in our Cassini RSS occultation profiles. These include Features 10 and 11, the 1.994 $R_S$ Ringlet edges; 17 and 18, the 1.960 $R_S$ ringlet edges; 56, the 1.495 $R_S$ Ringlet outer edge; 58 and 59, the 1.470 $R_S$ ringlet edges; and an additional narrow feature at R = 117900 km, whose peak positions vary nearly 30 km between data sets.