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Three Dimensional Structure of CIRs at 1 AU THOMAS BROILES,

UTSA/SwRI — We have studied CIRs at 1 AU over two solar cycles, by identifying 153 CIRs from the start of 1995 to the end of 2008 using ACE and Wind bulk plasma and magnetic field data. We used this list to study the bulk properties and the three dimensional structure of CIRs using minimum variance analysis. The planar magnetic structure of CIRs form along the Parker spiral and with an approximate, mean tilt out of the ecliptic of 20 $^{\circ}$. They also have a mean minimum width of 0.25 AU. At the ecliptic, CIRs do not always form with tilt out of the ecliptic opposing the hemisphere that their coronal hole originated in. We have also compared Lee's prediction of solar wind deflection to observations and found a relationship does exist, but not as expected by theory.

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