

Measurement of vector magnetic field of AR10484

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Several thousand Stokes profiles of NOAA AR10484 are derived from the observation of Solar Stokes Spectra Telescope at the Yunnan Observatory. By fitting these profiles, three components of the vector magnetic field, H , γ and χ , of the AR are worked out. On the basis the three components, the distributions of the longitudinal magnetic field H_{\parallel} , transverse magnetic field H_{\perp} are contoured. The distributions show that the AR is a very complicated sunspot group which is mainly composed by six sunspots, including two negative polarities and four positive polarities. The distribution of the longitudinal magnetic field is consistent to the SOHO MDI magnetogram at the same time.