

# **Spectro-imaging polarimetry of the local solar corona**

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We present the results from a spectro-imaging polarimetry of the local solar corona during 2013 Gabon total solar eclipse. The polarimetry was executed by a new type of solar telescope called Fiber Arrayed Solar Optical Telescope(FASOT) in a band containing the green coronal line. The polarimetry shows that the coronal linear polarization spectra display abundant details while the normal intensity profiles are simply shaped. This may indicate that they are formed in a complicated way. It is found that the greatest amplitude of the linear polarization reaches 3.2% above the continuum level. It is shown that the coronal imaging polarimetry without spectral details cannot be used for accurate diagnostics of coronal physical states. We expect that the polarimetry and the successive ones can open a new window to precisely probe the coronal magnetic field.