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Stokes profiles at the narrow magnetic lanes of sun spots

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Abstract. It has been previously observed that narrow lanes of transverse and longitudinal magnetic field with opposite polarity are the site of large solar flares. We performed a comprehensive examination of the stokes asymmetries of active region NOAA 10930. The active region was observed just before, during and after an X-class flare, which occurred during December 13, 2006 from 02:20 to 06:18 UT. We observe a static fibril interacting with a rotating penumbra of opposite polarity in the hours prior to the flare. Above the fibril were several small sites of hot gas in the chromosphere. During and after the flare, the fibril and its corresponding flow and profiles were much less pronounced. We present a full analysis of magnetic and plasma properties of this active region.