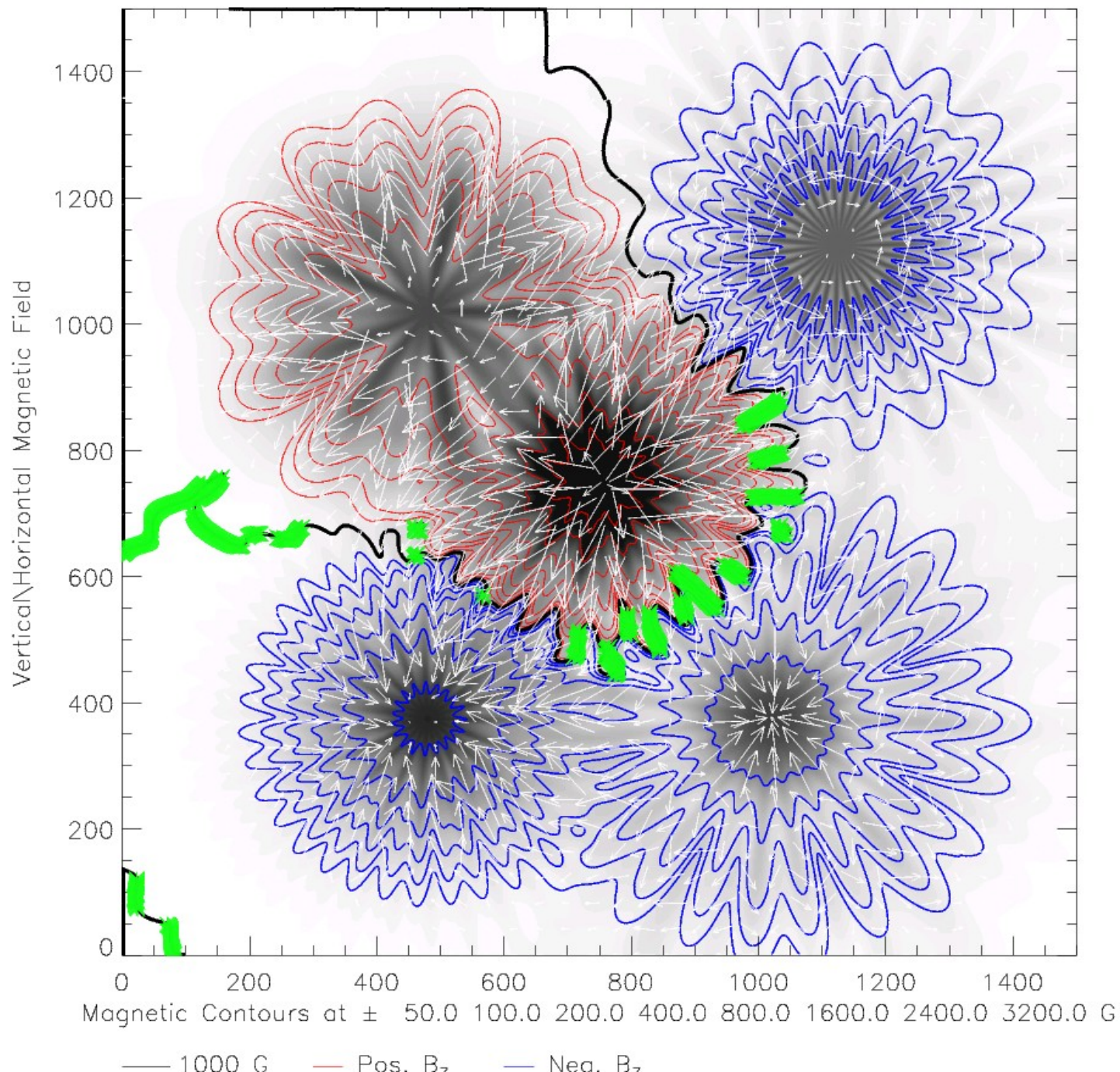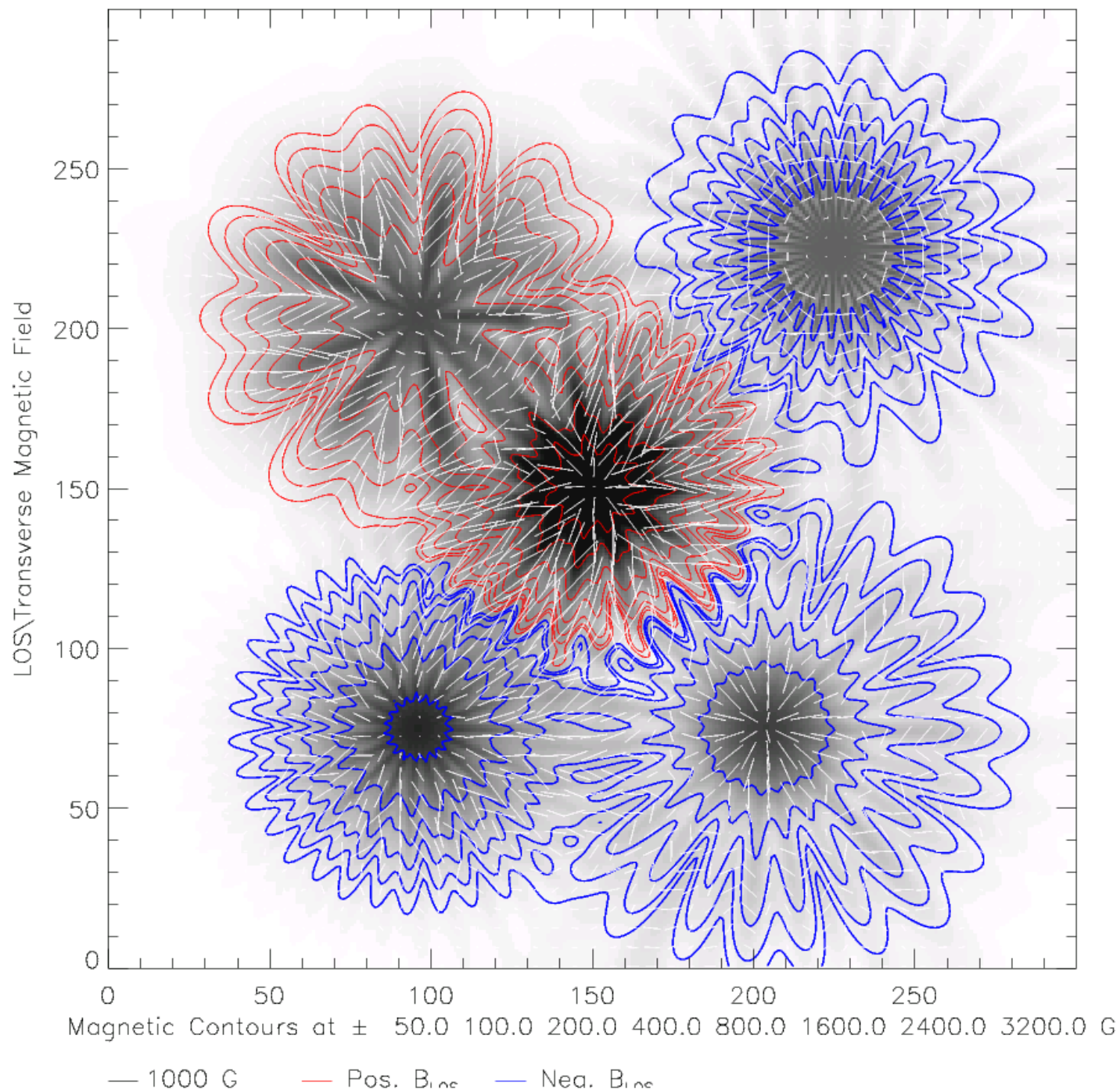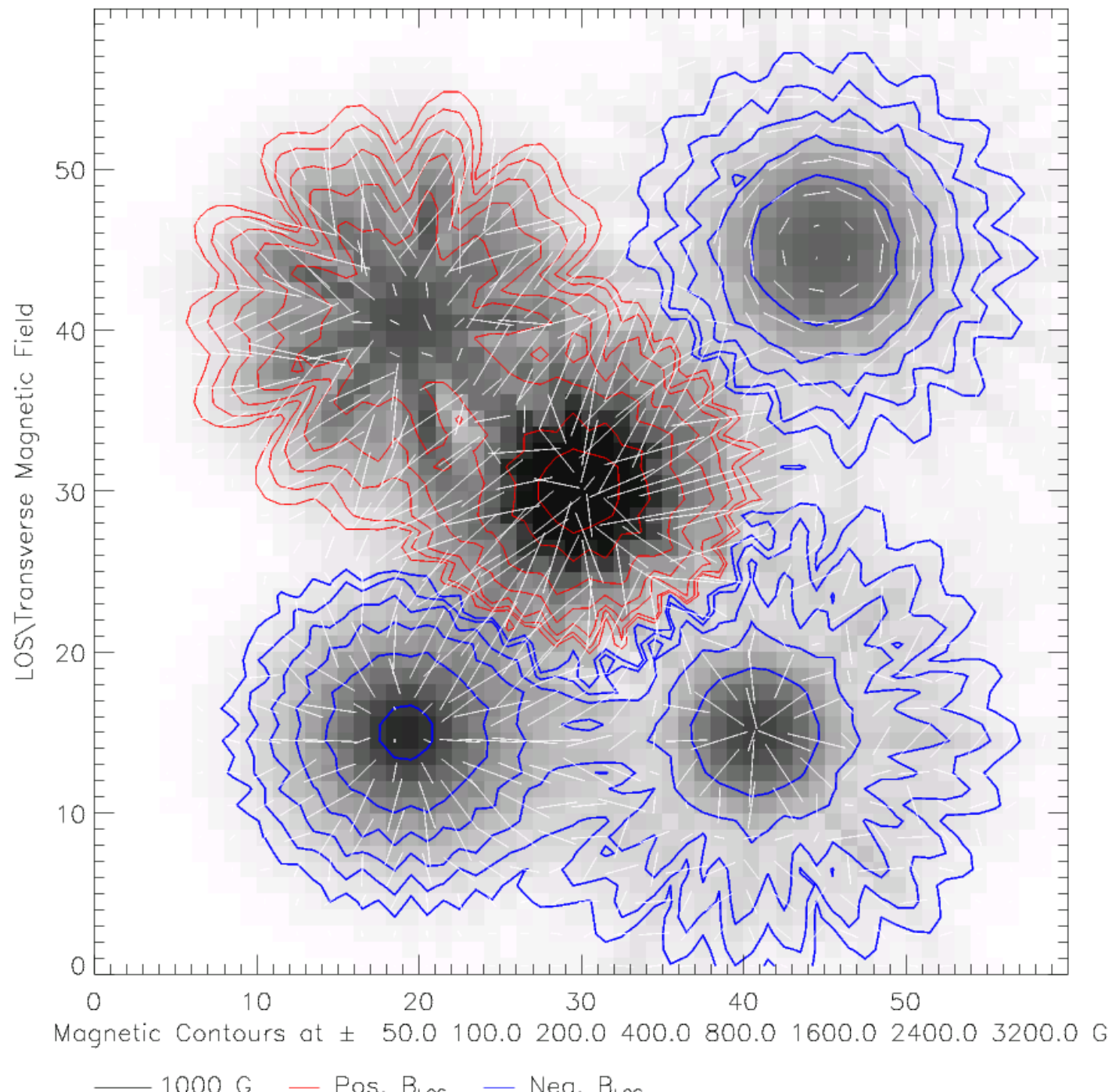# Binning the Model Magnetograms

- The model magnetograms were binned with a method similar to the noise addition to simulate how an instrument would see unresolved structure.

- At each full-res pixel, the model field was used to generate ideal Unno-Rachkovsky Stokes profiles (Milne-Eddinton). As with the noise added case, the 6302.5 spectral line was assumed with a 30mA instrument spectral width.

- No noise was added, but the continuum level varied from quiet sun to sunspot. $I_c = 1 - 0.9 \min(\sqrt{B_z^2 + 0.2 B_h^2}, \, 2\text{kG})/2\text{kG}$

- The Stokes profiles were summed over the macro pixels and inverted.
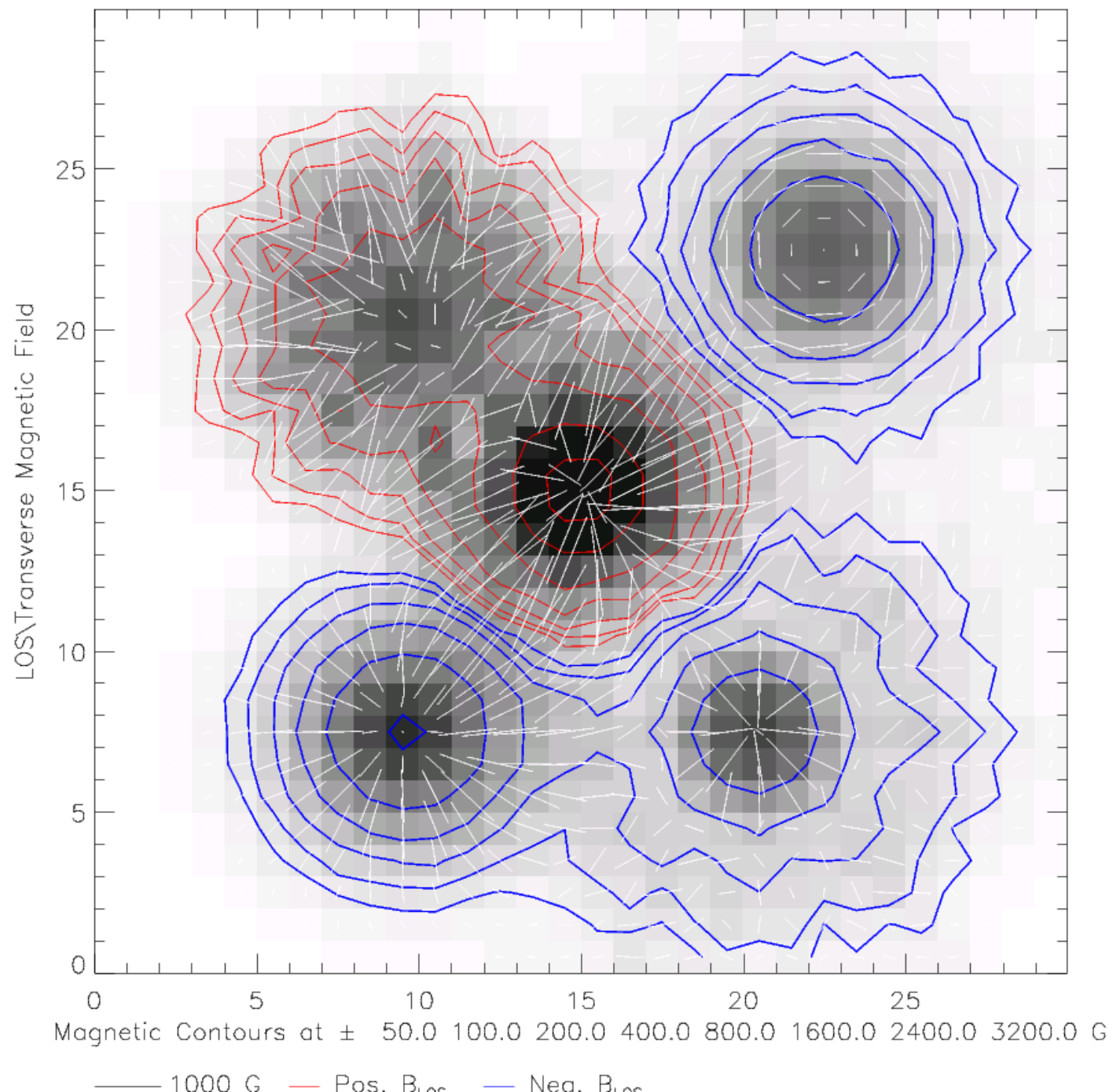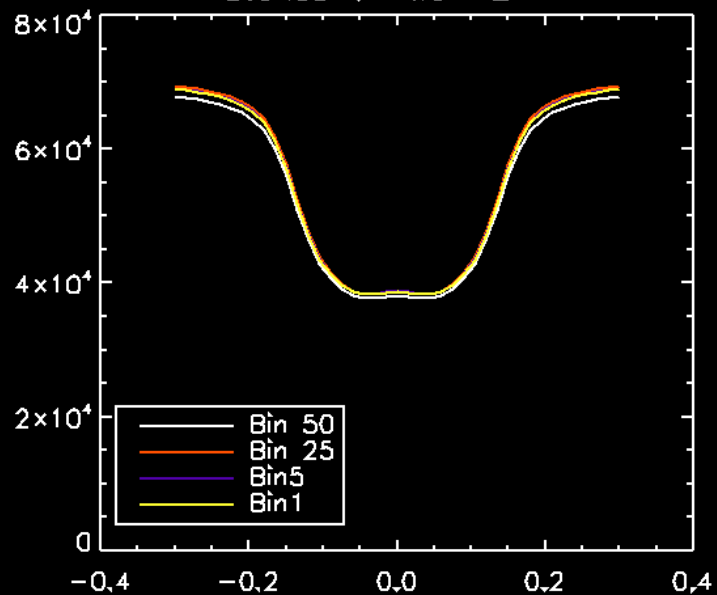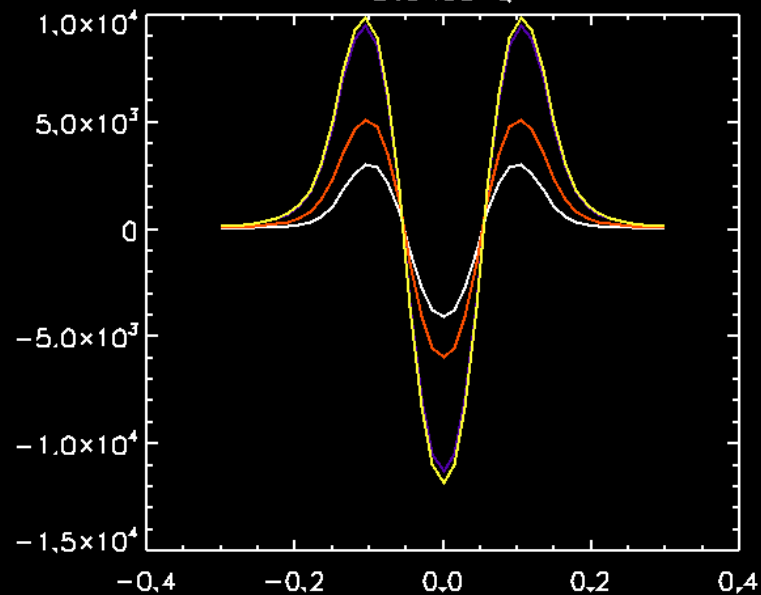
Flowers 8 Model

Flowers 8 Bin 5

LOS\Transverse Magnetic Field

Magnetic Contours at ± 50.0 100.0 200.0 400.0 800.0 1600.0 2400.0 3200.0 G

— 1000 G   — Pos. B_{LOS} — Neg. B_{LOS}

Flowers 8 Bin 25

LOS\Transverse Magnetic Field

Magnetic Contours at ± 50.0 100.0 200.0 400.0 800.0 1600.0 2400.0 3200.0 G

1000 G   Pos. B_{LOS} Neg. B_{LOS}

Flowers 8 Bin 50

LOS\Transverse Magnetic Field

Magnetic Contours at ± 50.0 100.0 200.0 400.0 800.0 1600.0 2400.0 3200.0 G
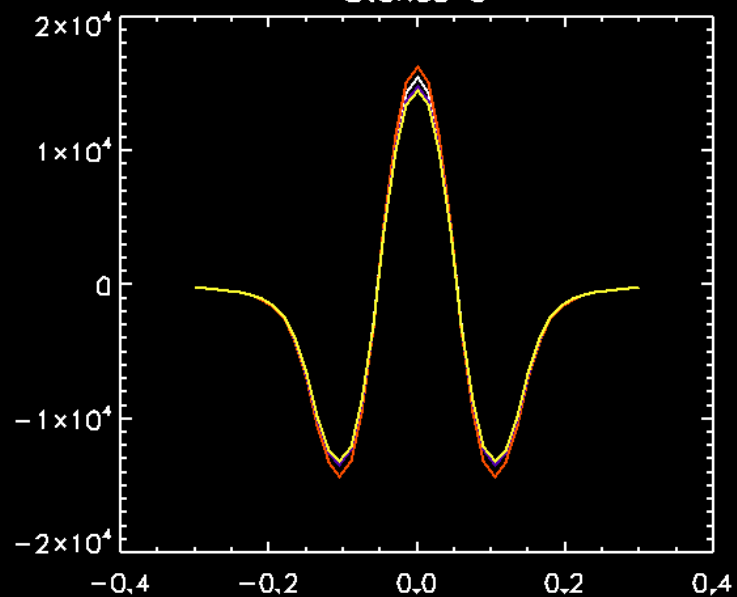
—— 1000 G   —— Pos. B_{LOS} —— Neg. B_{LOS}

Stokes I: Pixel 12 11

Stokes Q

Stokes U

Stokes V

Bin 50
Bin 25
Bin5
Bin1