

# The recovering procedures for radio maps of the Sun

Dmitry Bezrukov, Boris Ryabov

*Ventspils International Radio Astronomy Center, Ventspils, LATVIA*

Anisa Baykova

*Main Astronomical Observatory, RAS, Pulkovo, St.-Petersburg, RUSSIA*

YEARC 2010

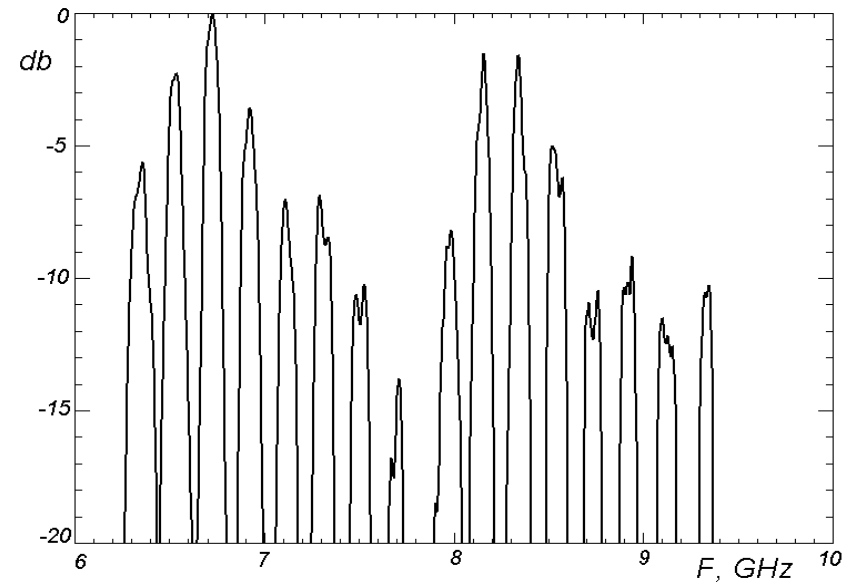


***Ventspils International Radio Astronomy Center  
Radio telescope RT-32***



***Ventspils International Radio Astronomy Center  
Radio telescope RT-32***

# Spectral polarimeter 6.3-9.3 GHz

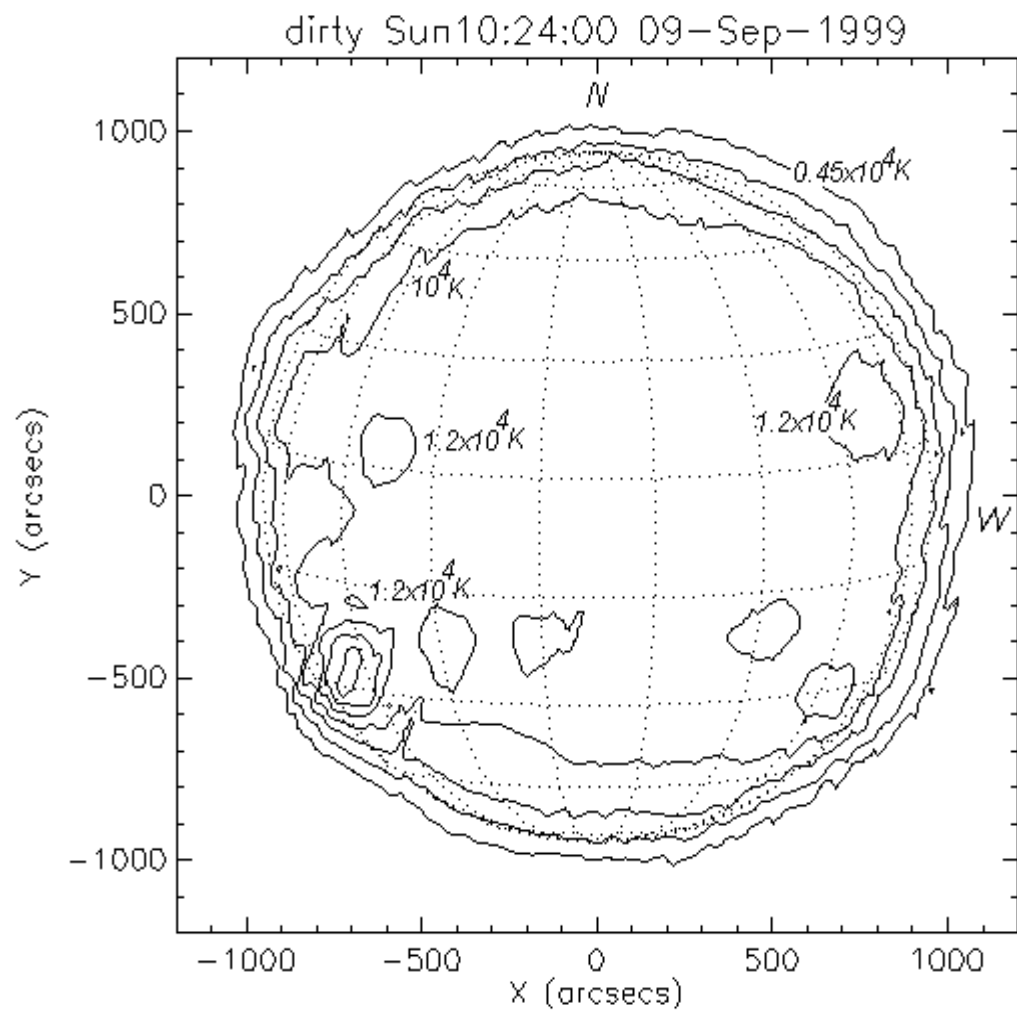


**2 channels x 16 bands**  
 **$\Delta f = 120 \dots 150$  MHz**

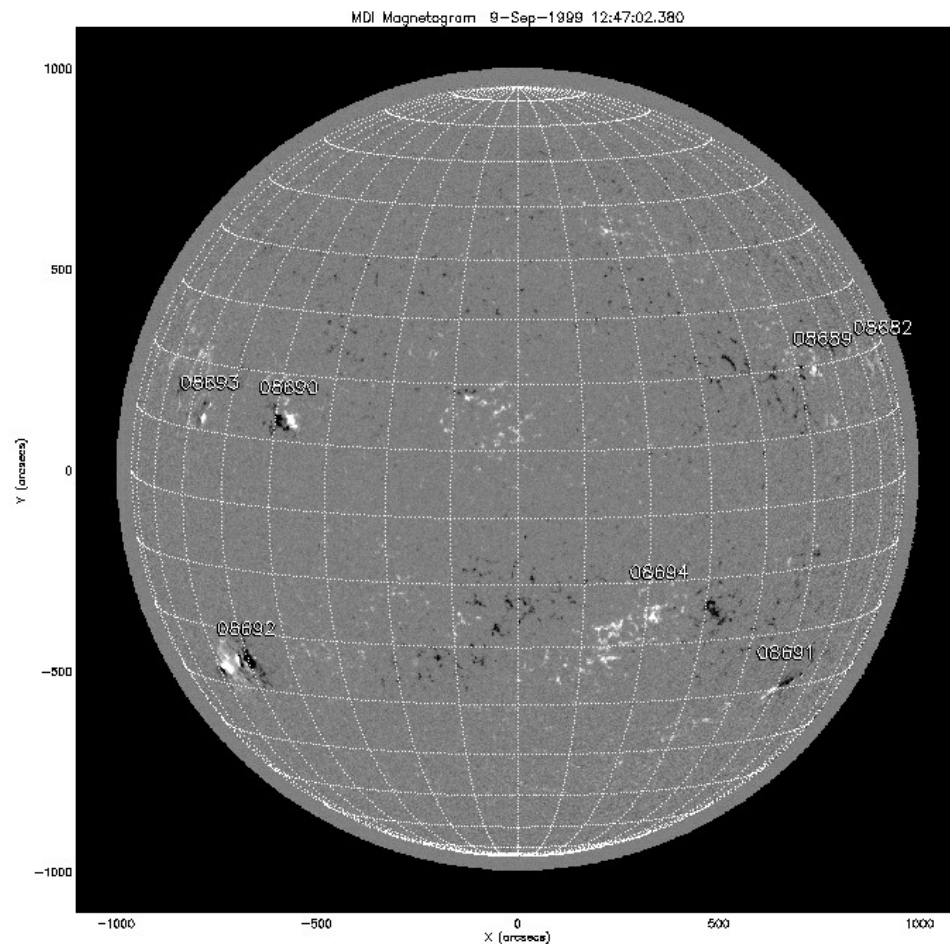
**$\delta_{\text{HPBW}} = 3.4 \dots 5.1$  arcmin**

**$T_{\text{sys}} = 110 \dots 120$  K**

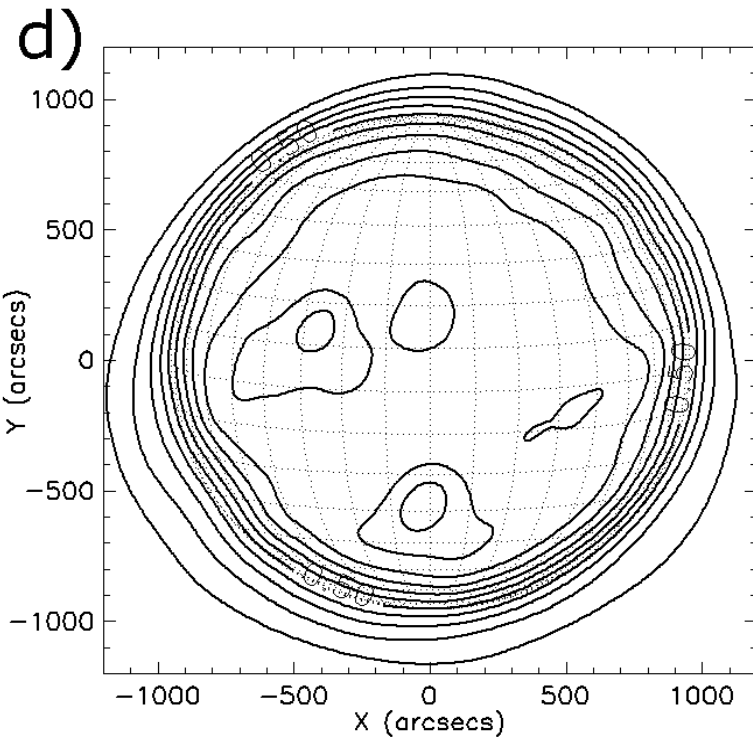
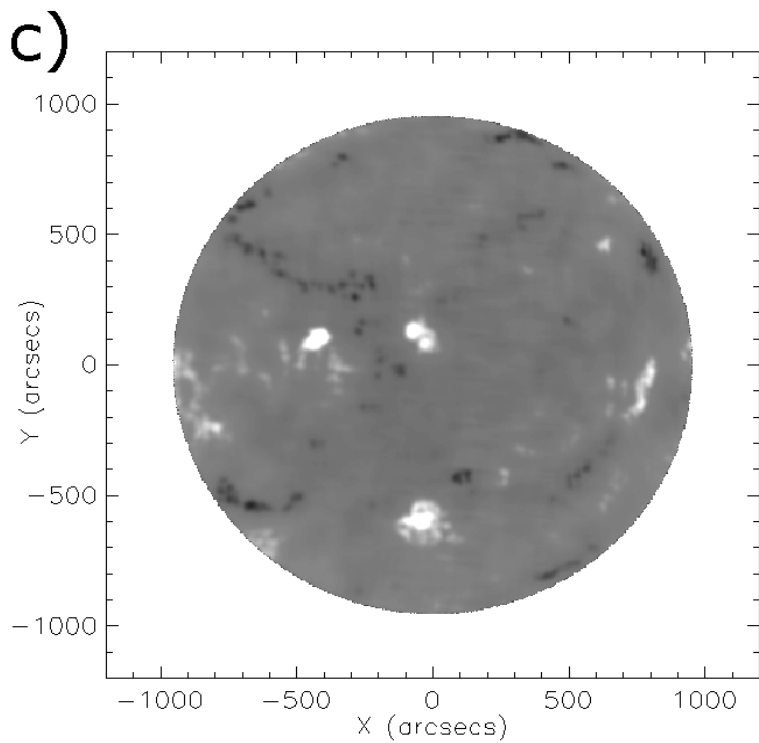
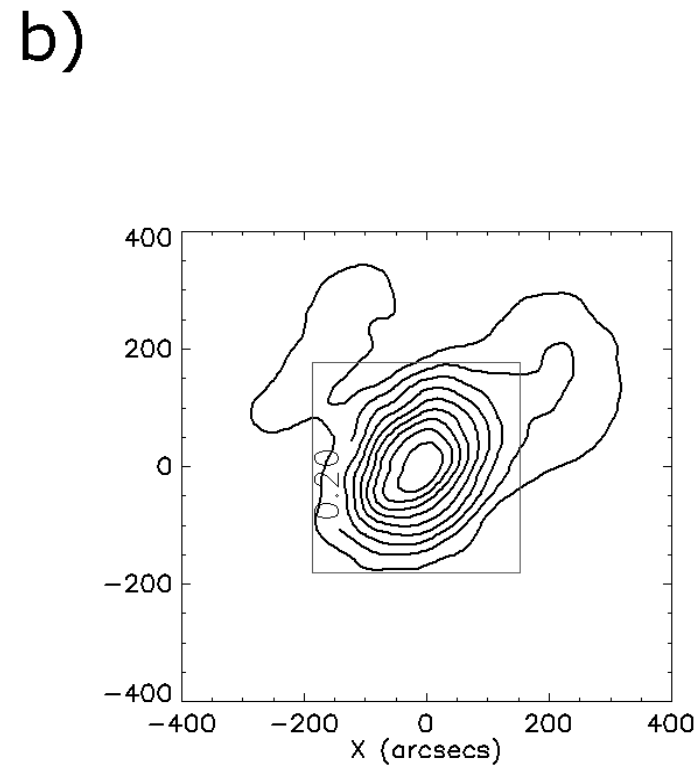
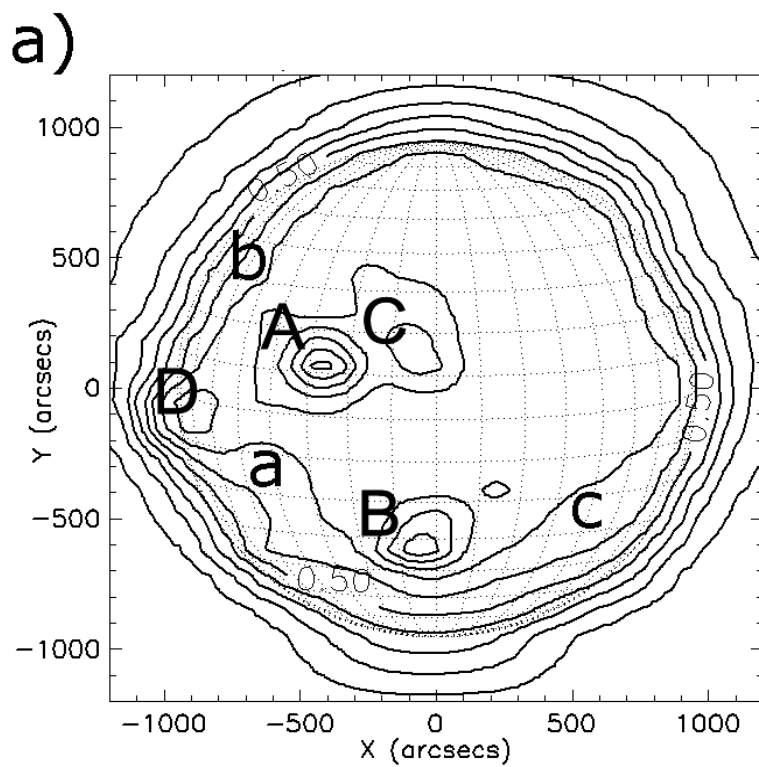
**$\tau = 0.2 \dots 0.3$  s**



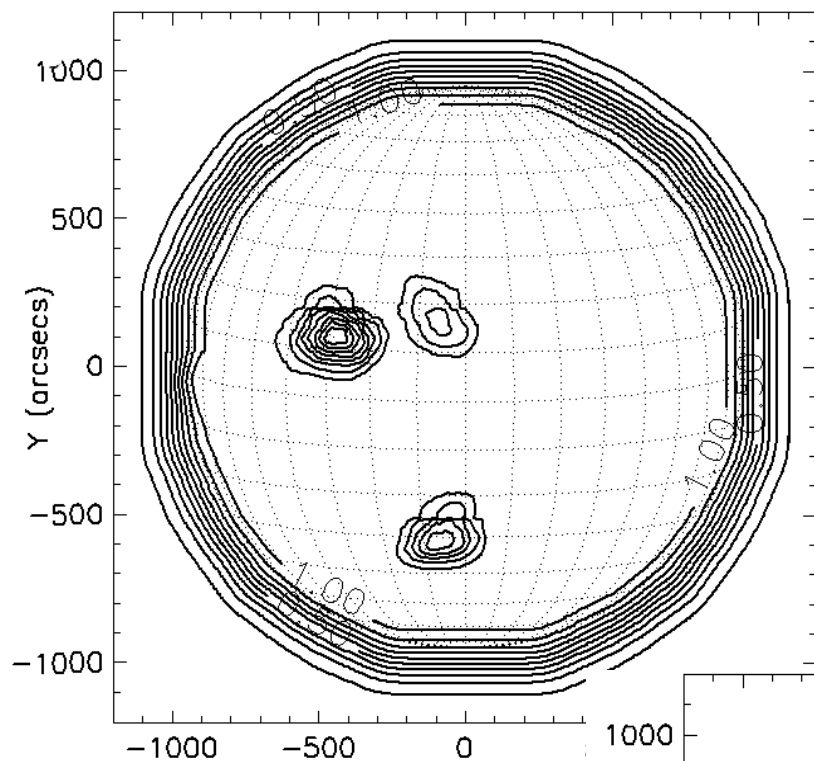
**“Dirty” solar radio map  
obtained from “rough”  
scan data**



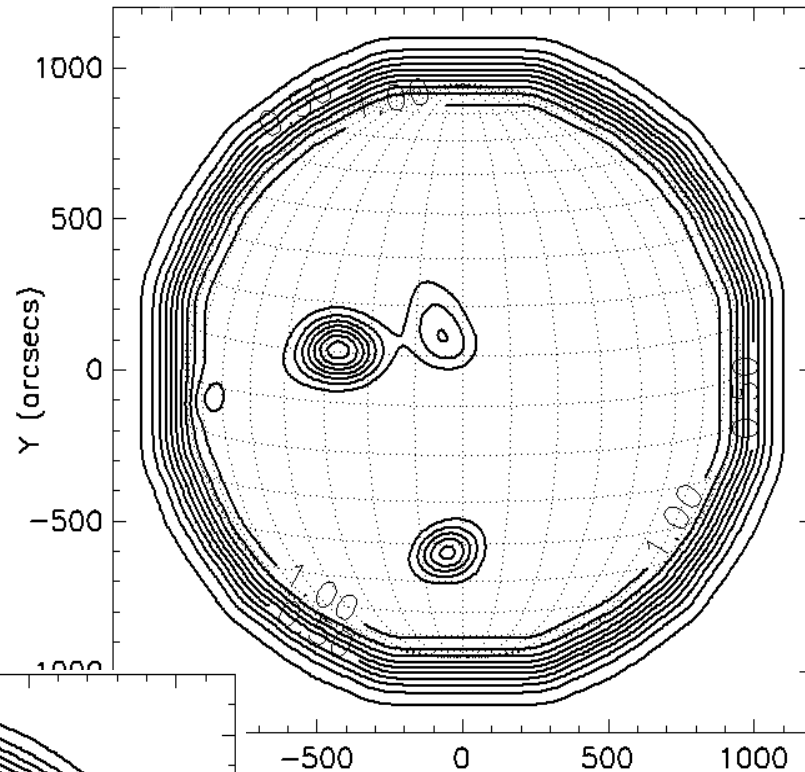
**MDI solar image**



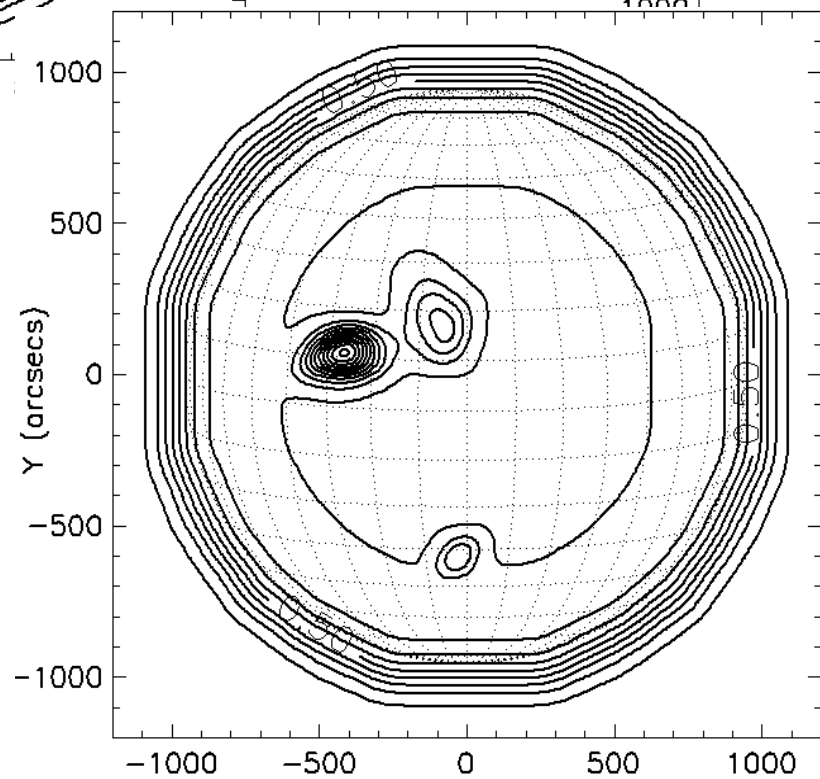
# The recovered solar radio maps



**CLEAN**

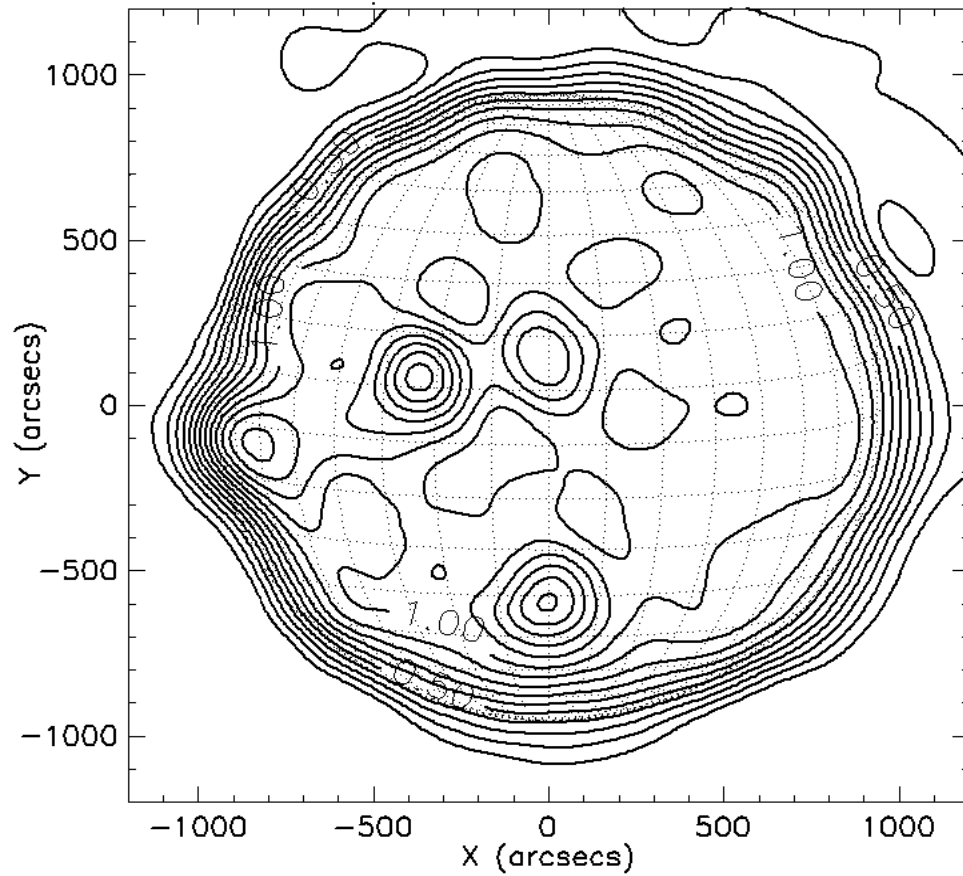


**MLM**

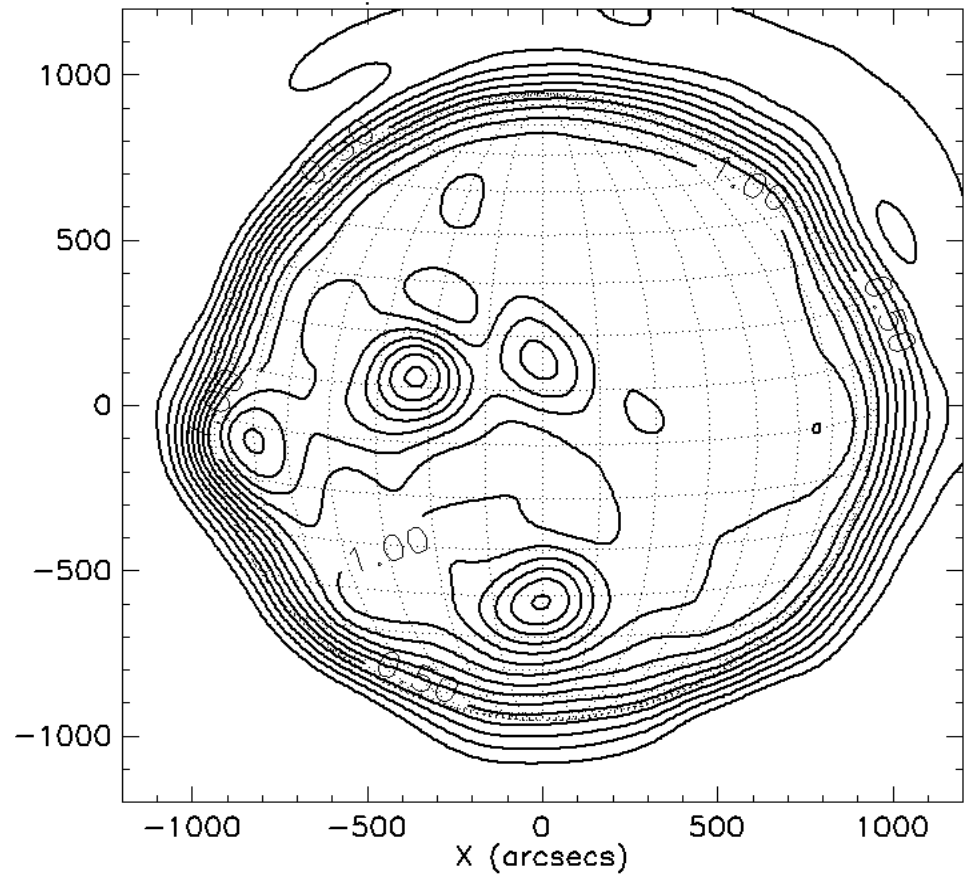


**MEM**

# The recovered solar radio maps



**Generalized MEM**



**Inverse filtration**



## *Conclusions*

- 1. The recovering method have to depend on the goal of the recovering*
- 2. CLEAN, MLM, MEM are good enough for recovering of the bright LS*
- 3. GMEM and inverse filtration could be optimal for recovering of all the reliable LS*

***Thank you!***