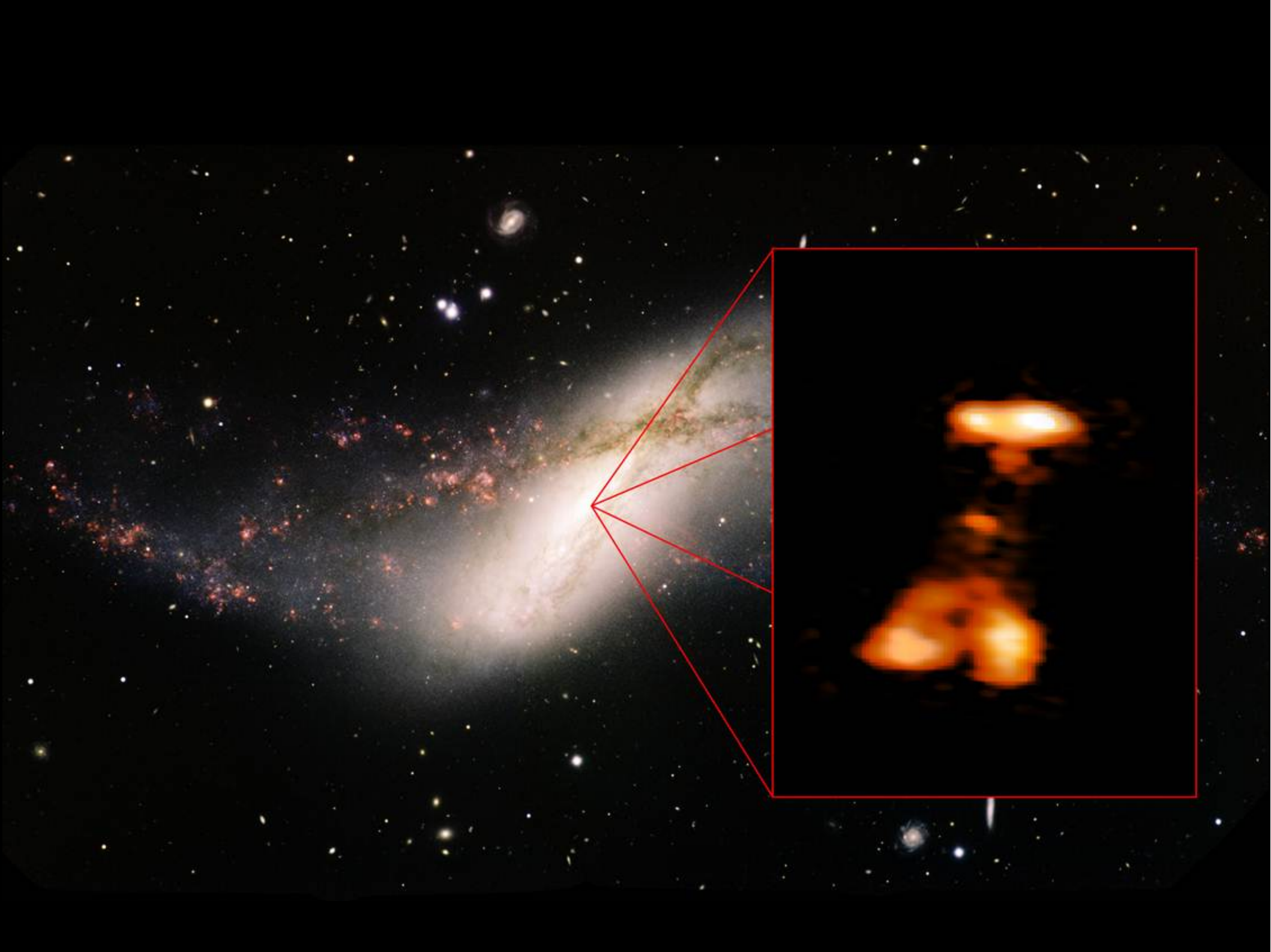


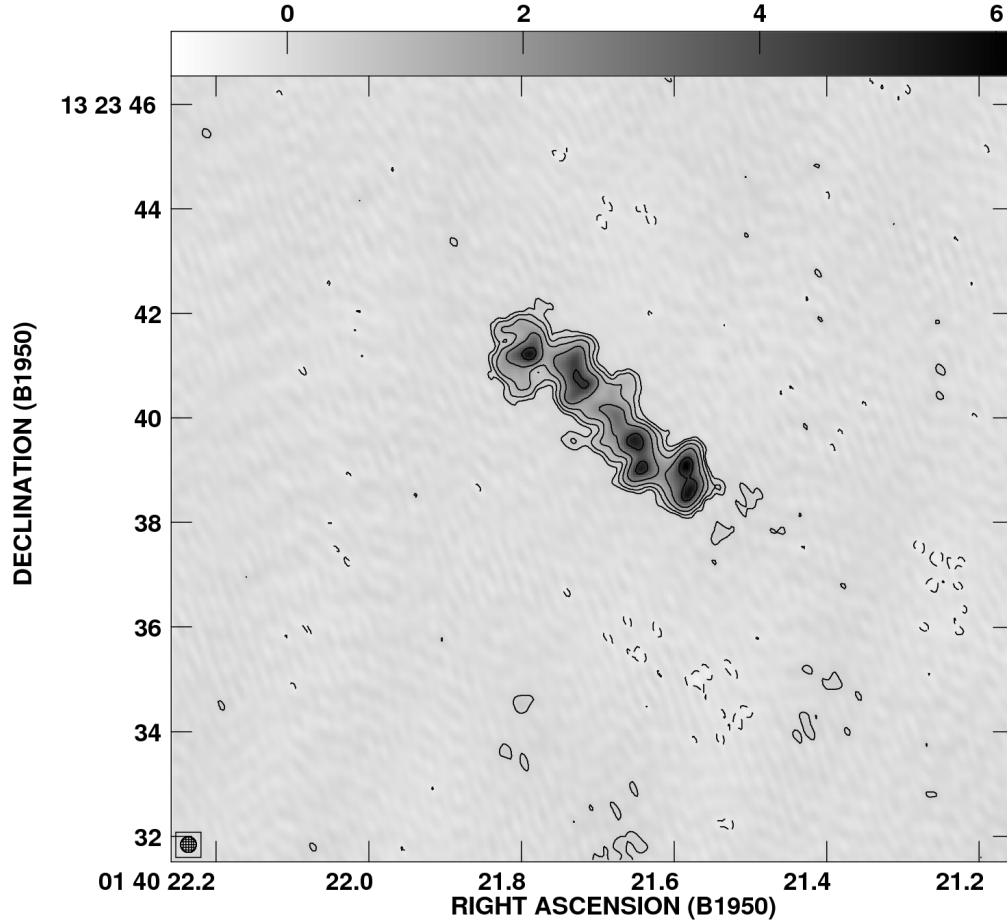
# NGC 660



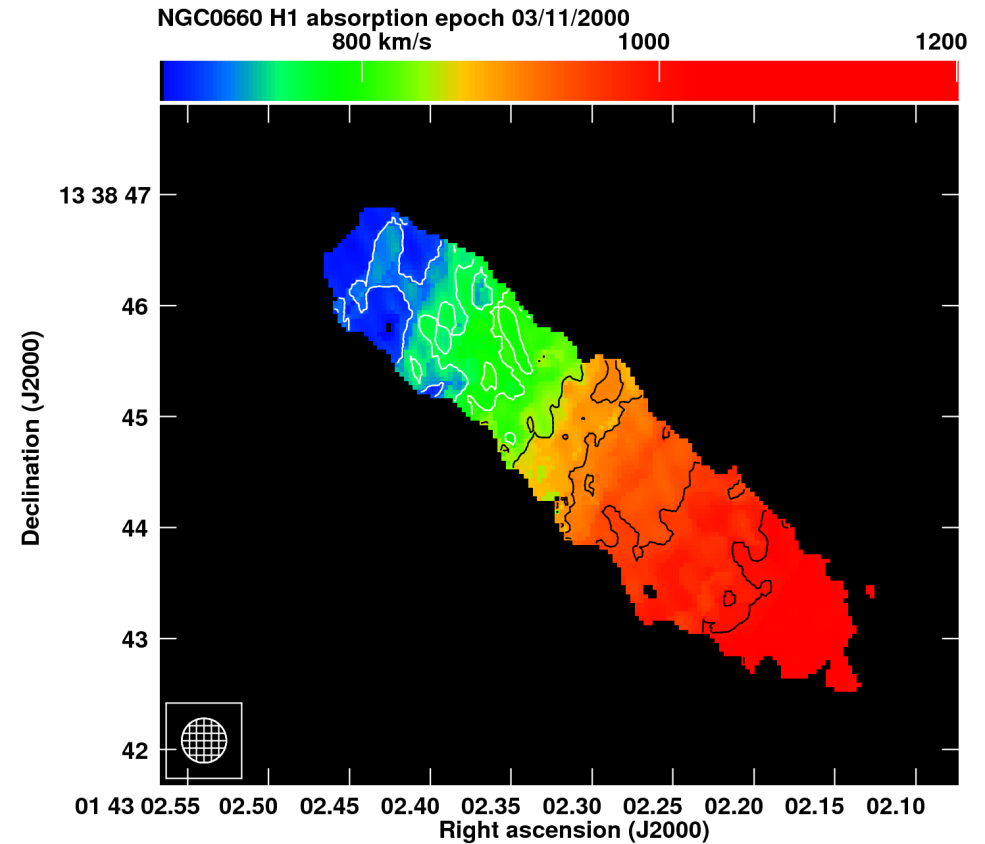


# MERLIN archive 1.4GHz

PLot file version 2 created 08-NOV-2002 15:35:20  
BOTH: NGC0660 IPOL 1420.406 MHZ N6600.3CIRC.ICL001.4

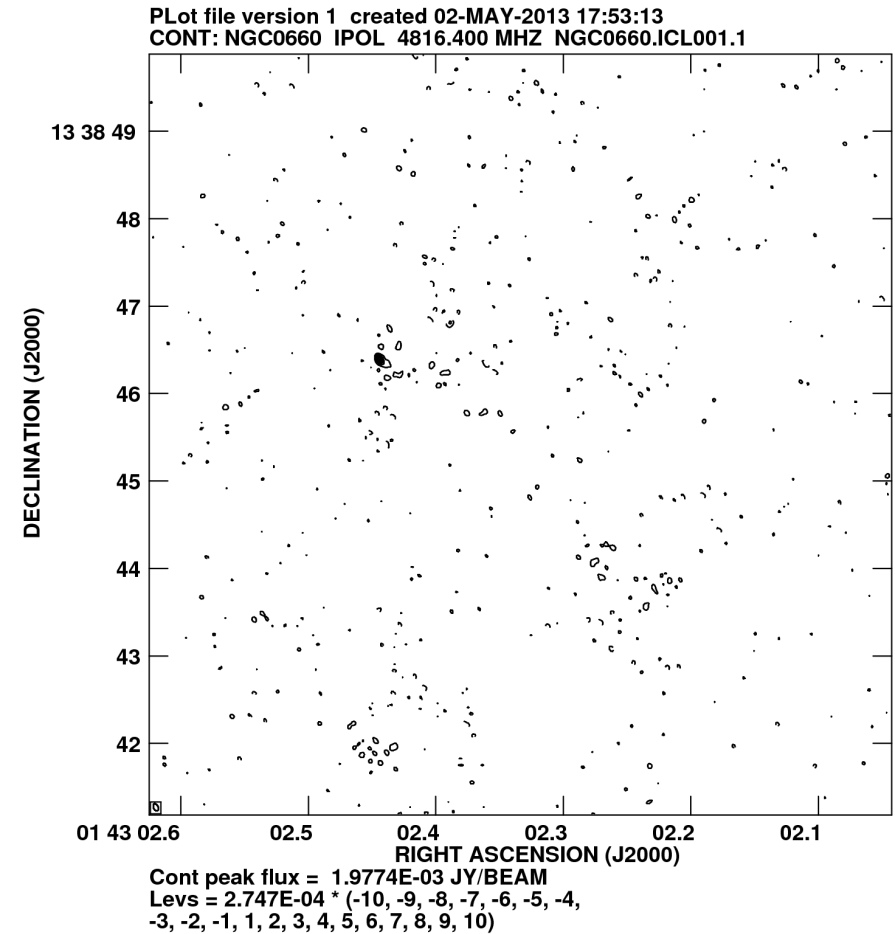
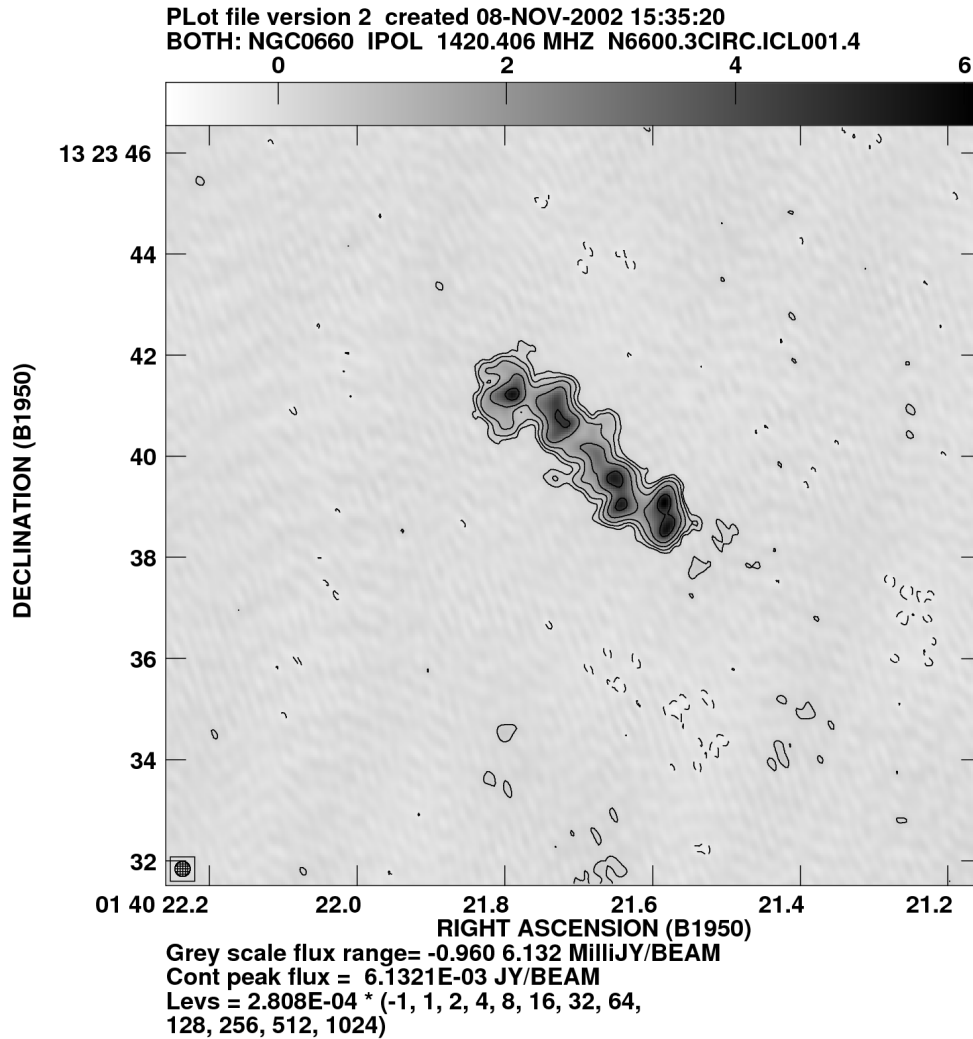


Grey scale flux range= -0.960 6.132 MilliJY/BEAM  
Cont peak flux = 6.1321E-03 JY/BEAM  
Levs = 2.808E-04 \* (-1, 1, 2, 4, 8, 16, 32, 64,  
128, 256, 512, 1024)



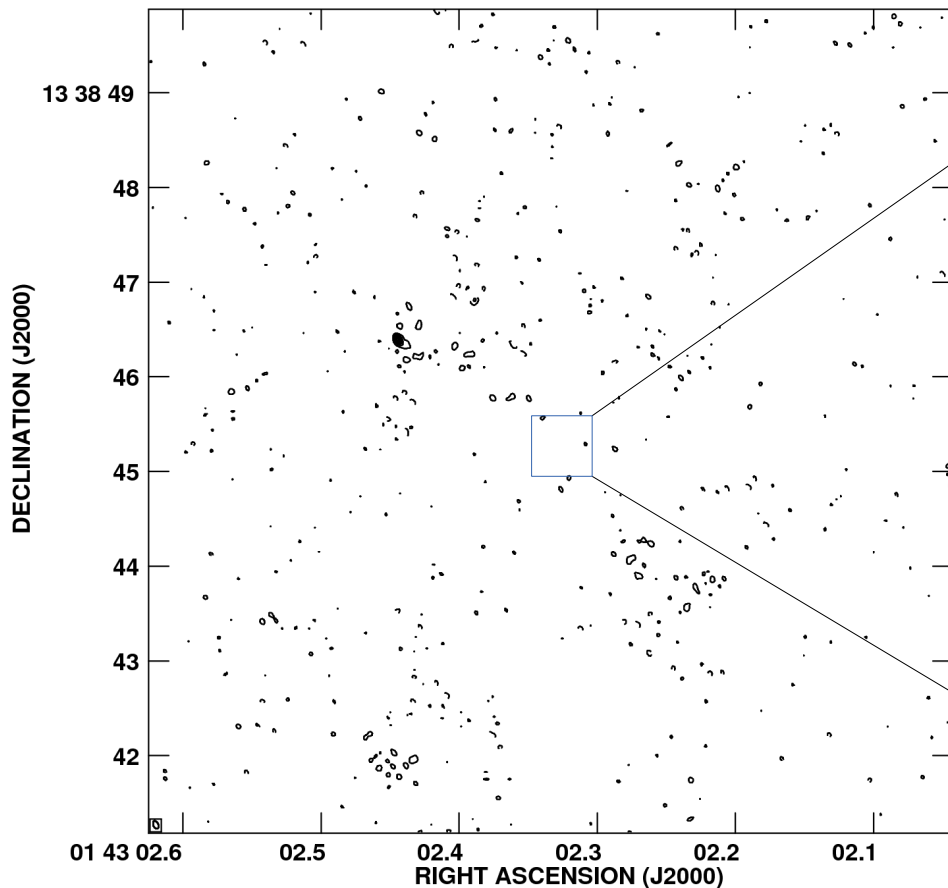
Levs = 600, 650, 700, 750, 800, 850,  
900, 950, 1000km/s)

# MERLIN archive 1.4 and 5GHz



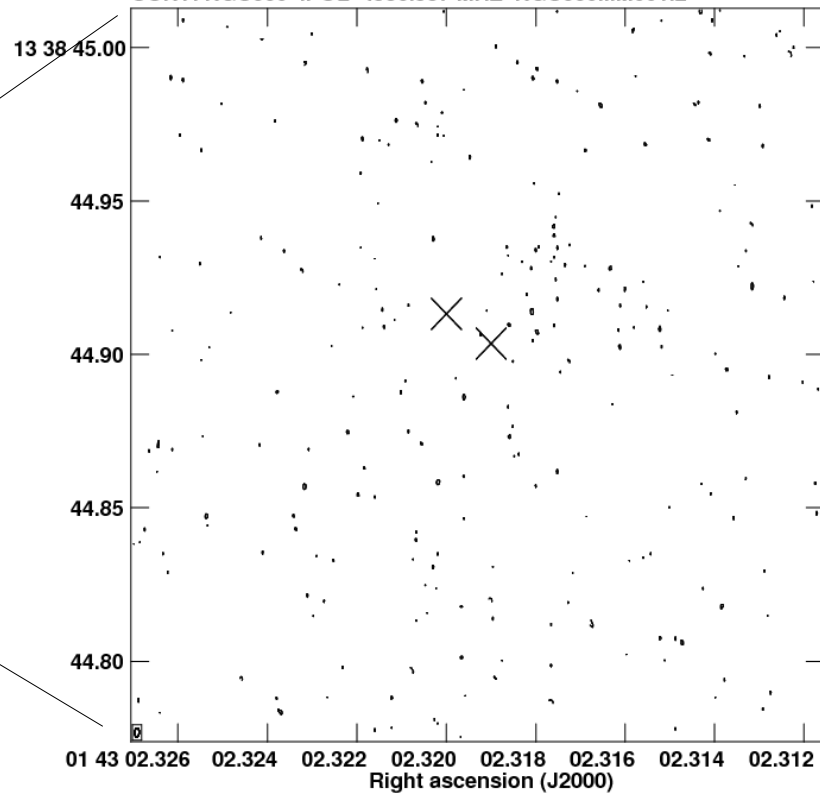
# VLBA 2001 5GHz

PLot file version 1 created 02-MAY-2013 17:53:13  
CONT: NGC0660 IPOL 4816.400 MHZ NGC0660.ICL001.1



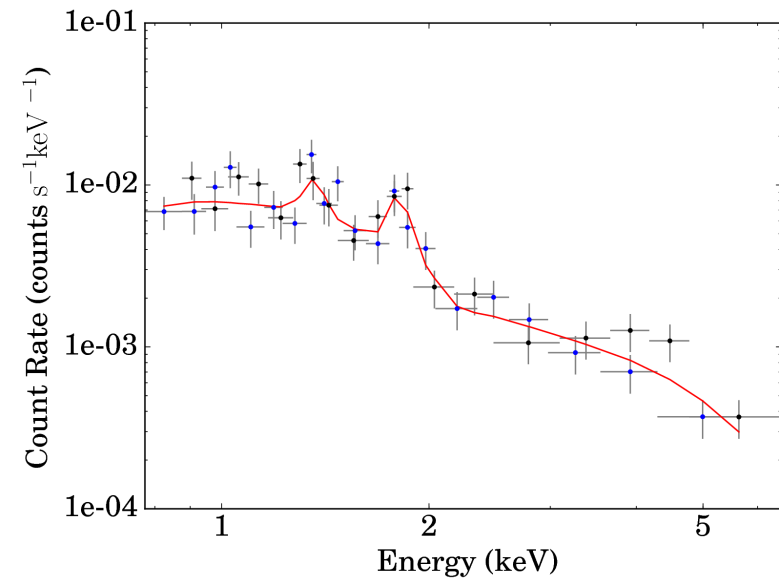
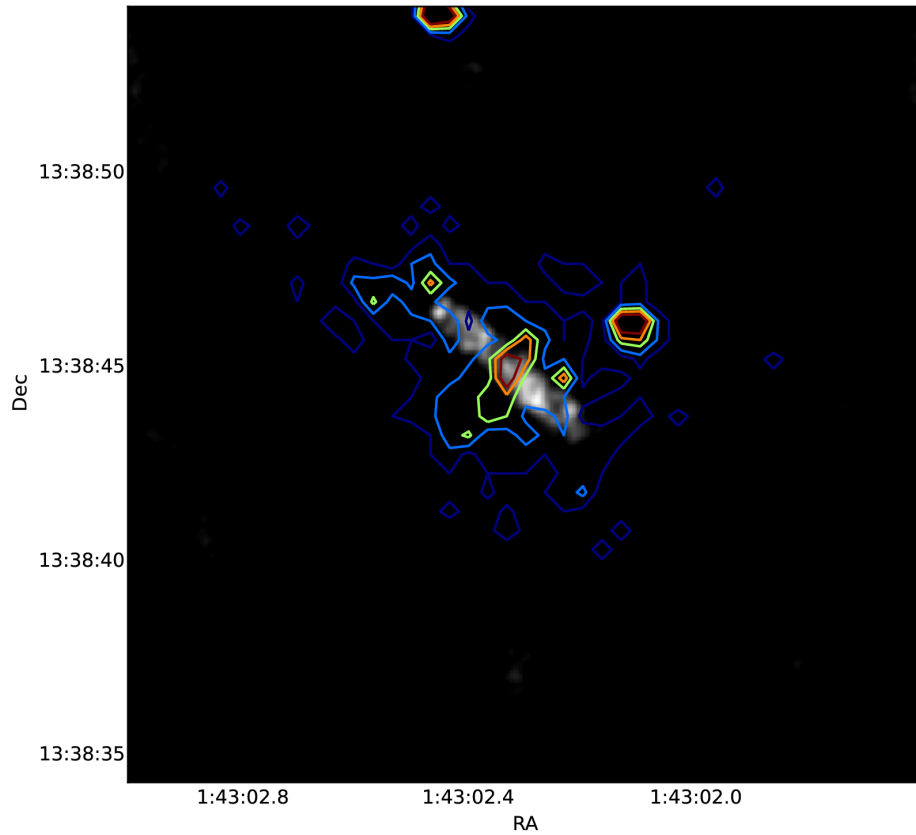
Cont peak flux =  $1.9774\text{E-}03$  JY/BEAM  
Levs =  $2.747\text{E-}04$  \* (-10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

PLot file version 1 created 01-OCT-2014 17:03:38  
CONT: NGC660 IPOL 4986.987 MHZ NGC660.IIM001.2

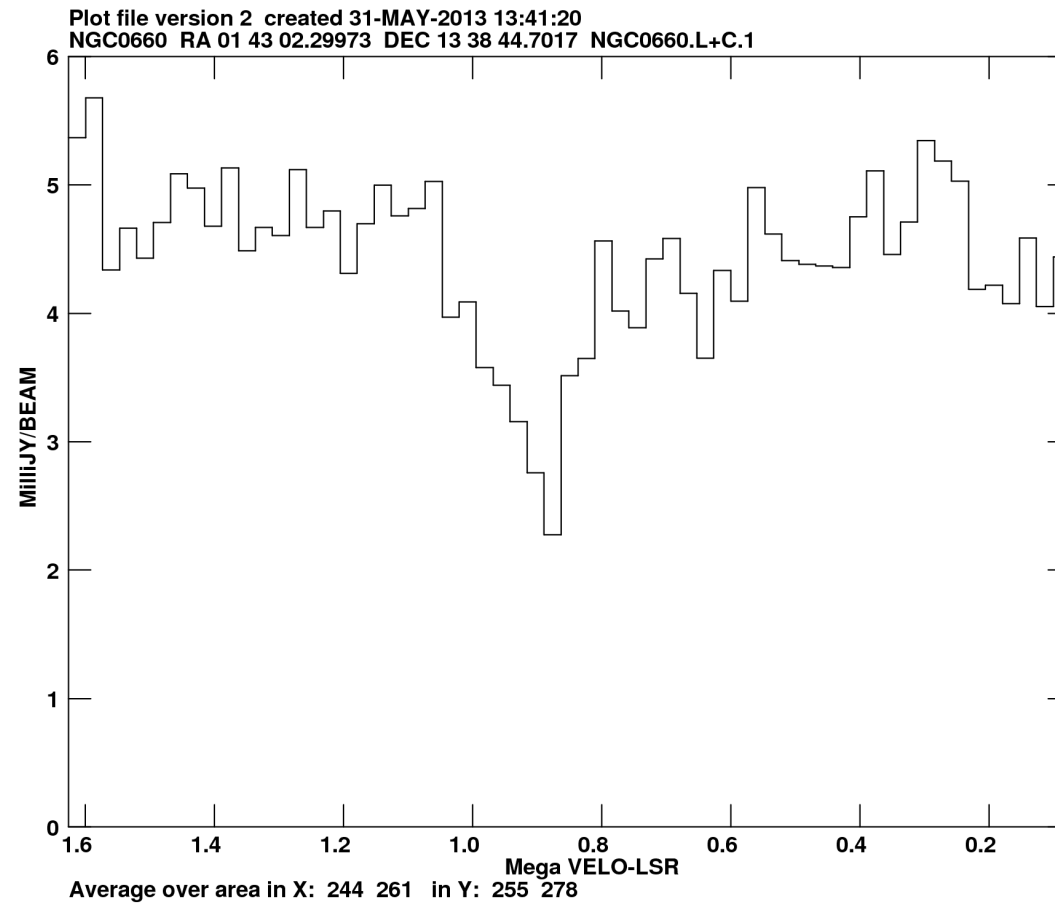


Cont peak flux =  $8.6112\text{E-}04$  JY/BEAM  
Levs =  $4.219\text{E-}04$  \* (-1, 1, 2, 4, 8, 16, 32, 64, 128)

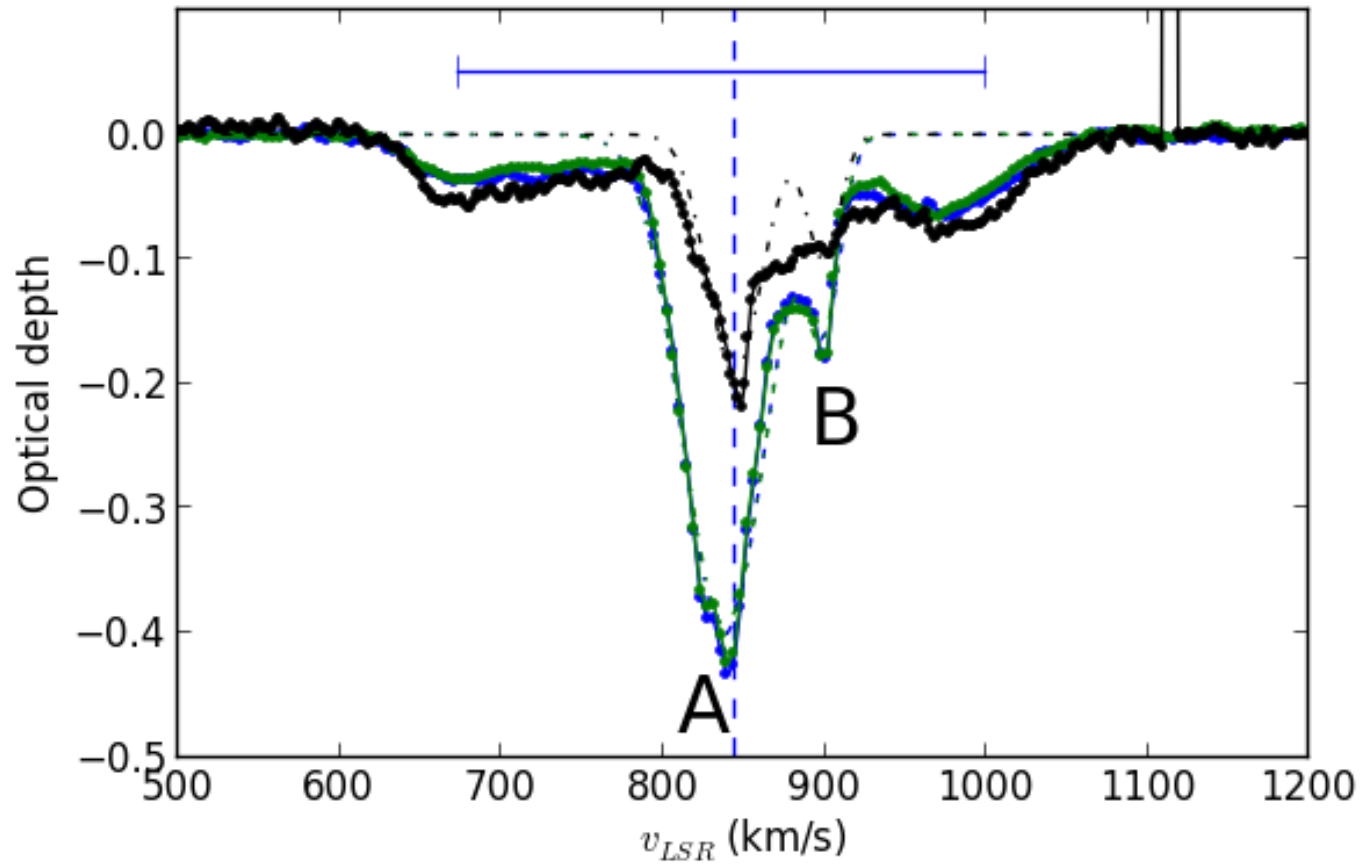
# Chandra archive



# MERLIN archive 1.4GHz

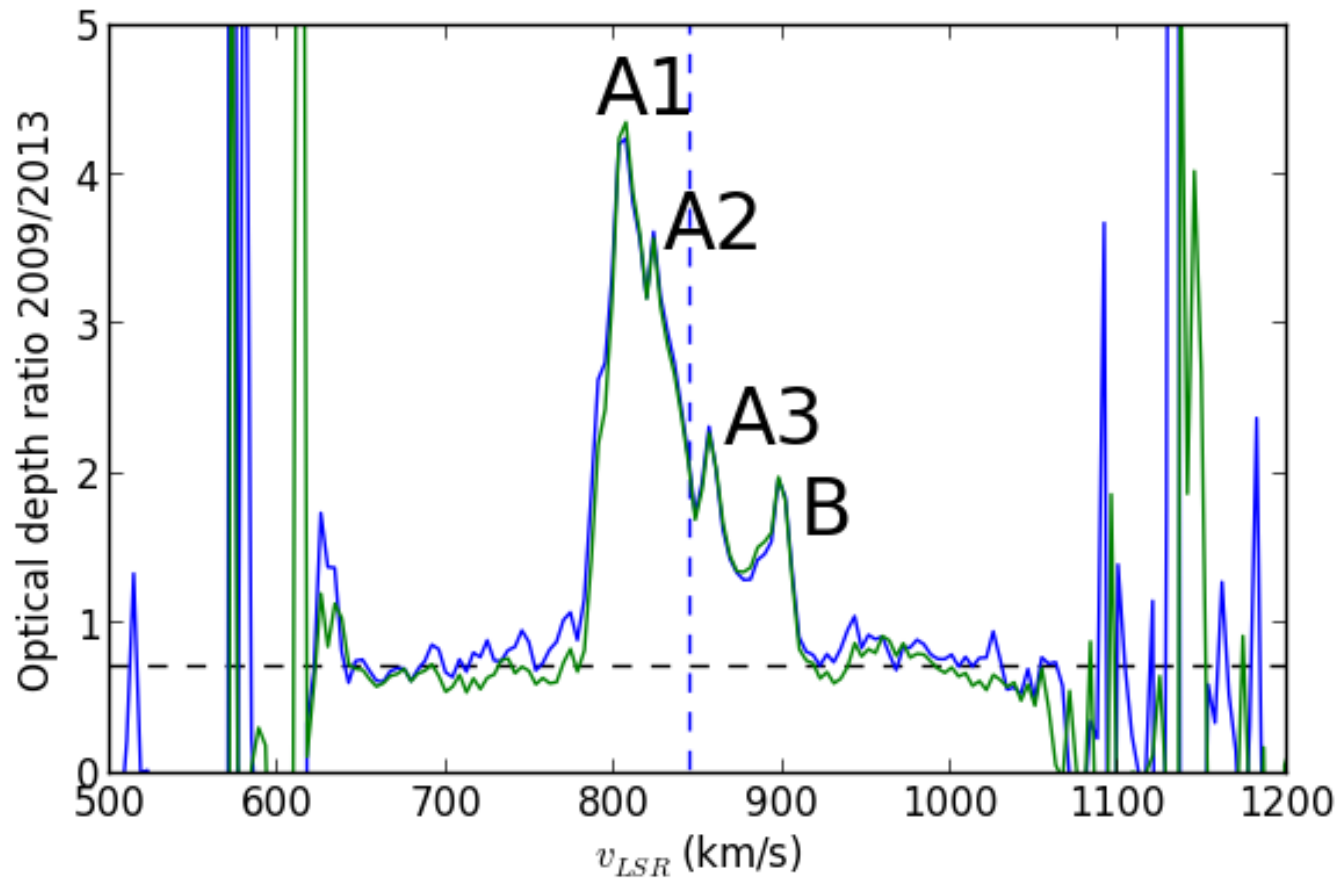


# WSRT 2013



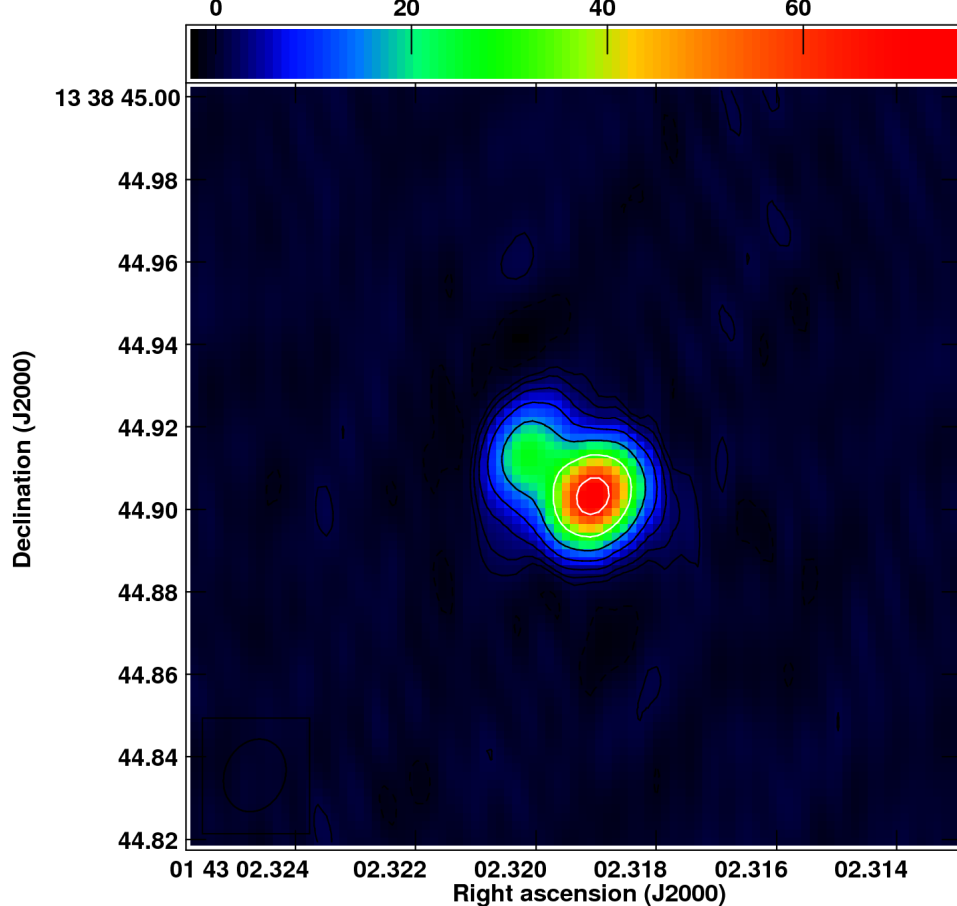


# Multiple epochs

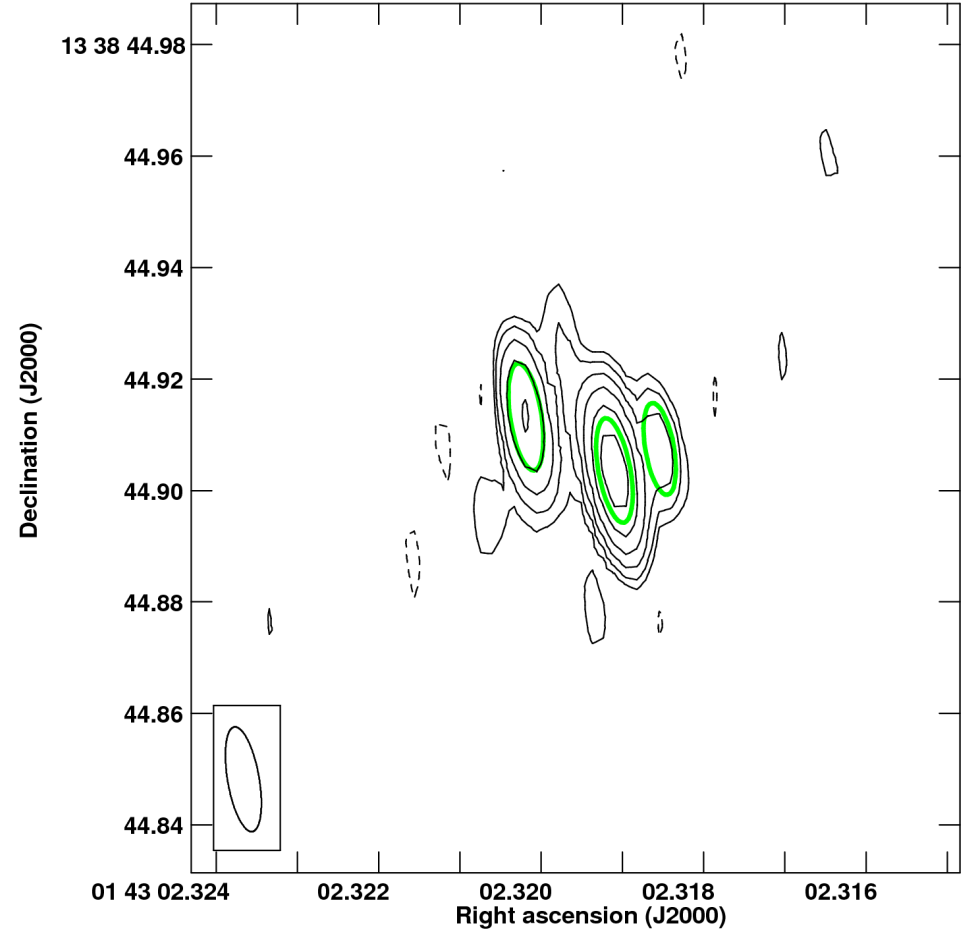


# EVN October 2013

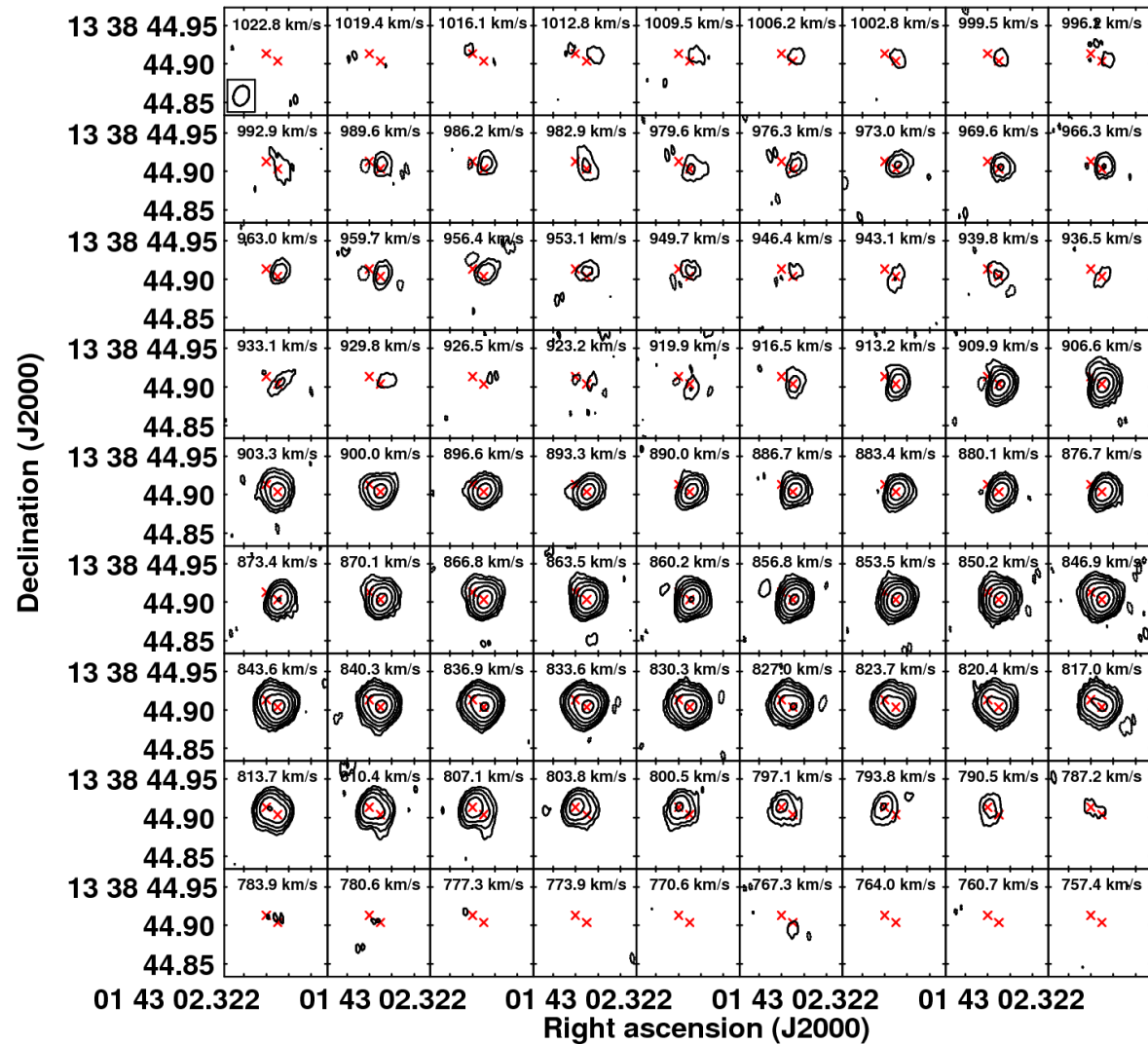
PLot file version 1 created 04-FEB-2014 13:58:50  
BOTH: NGC660 IPOL 1386.883 MHZ NGC660.ICL001.4



Grey scale flux range= -2.17 75.37 MilliJY/BEAM  
Cont peak flux = 7.5372E-02 JY/BEAM  
Levs = 9.885E-04 \* (-1, 1, 2, 4, 8, 16, 32, 64, 128)

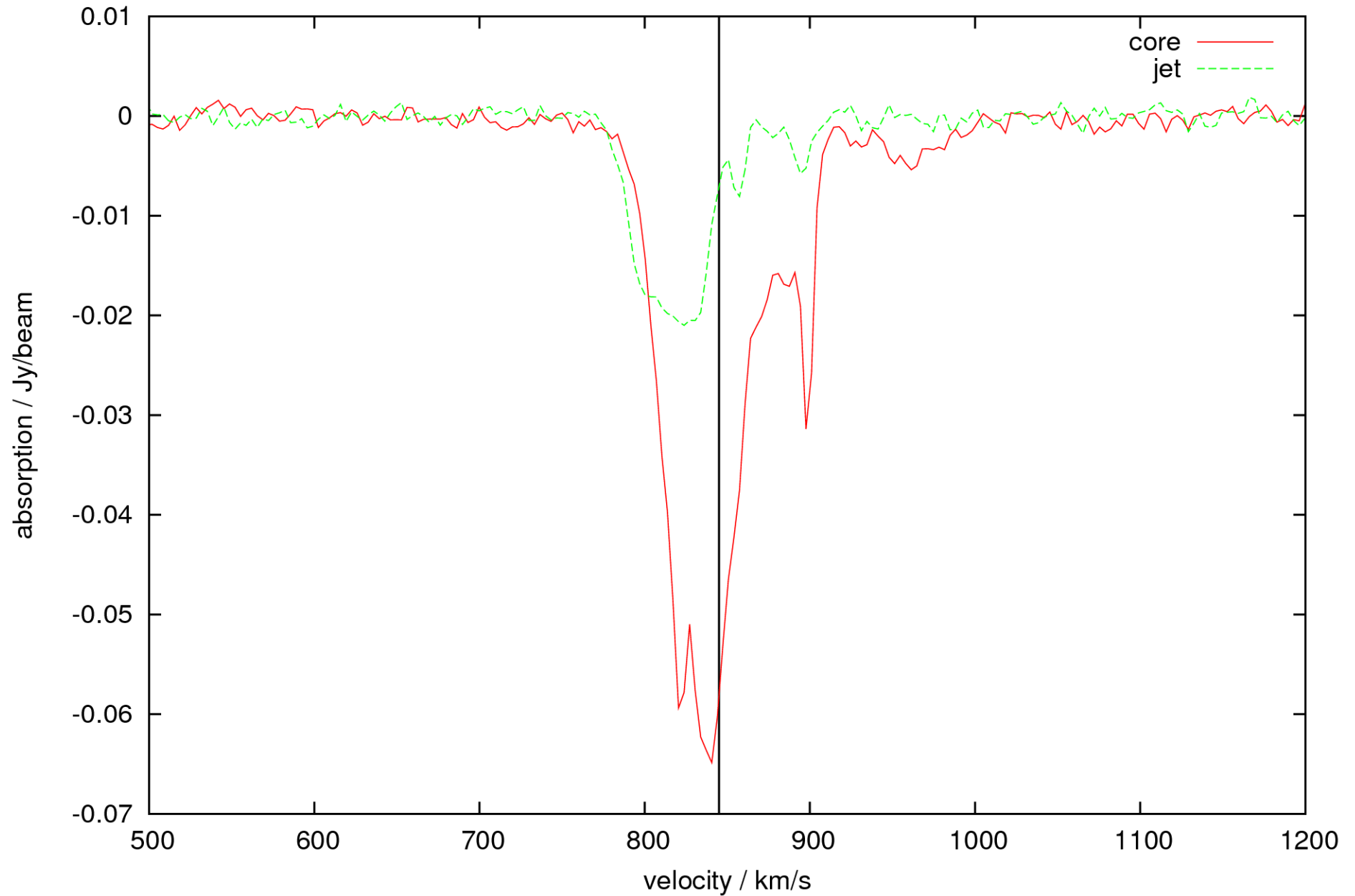


# EVN October 2013

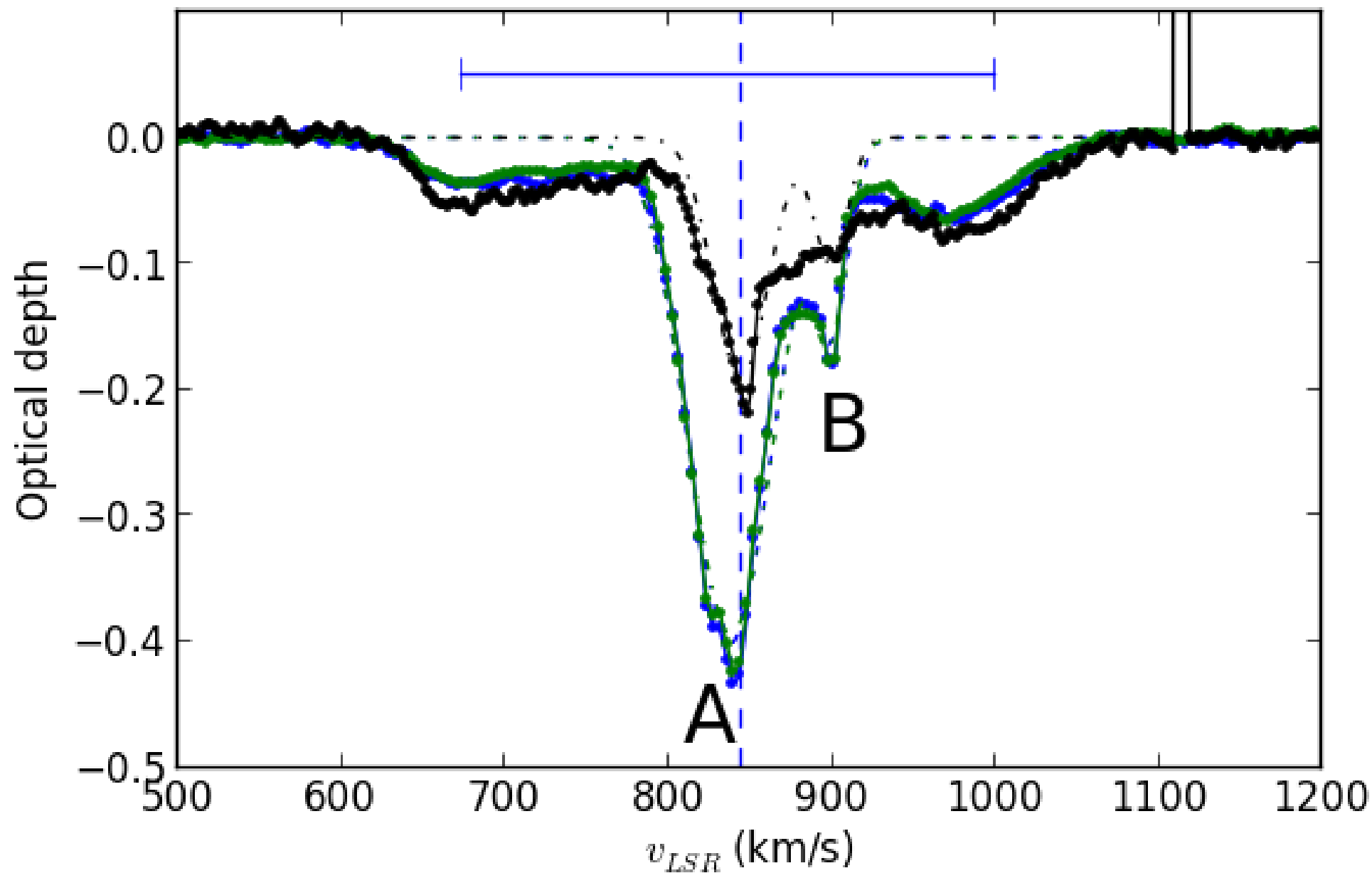


# EVN October 2013

HI absorption against core and jet in NGC660

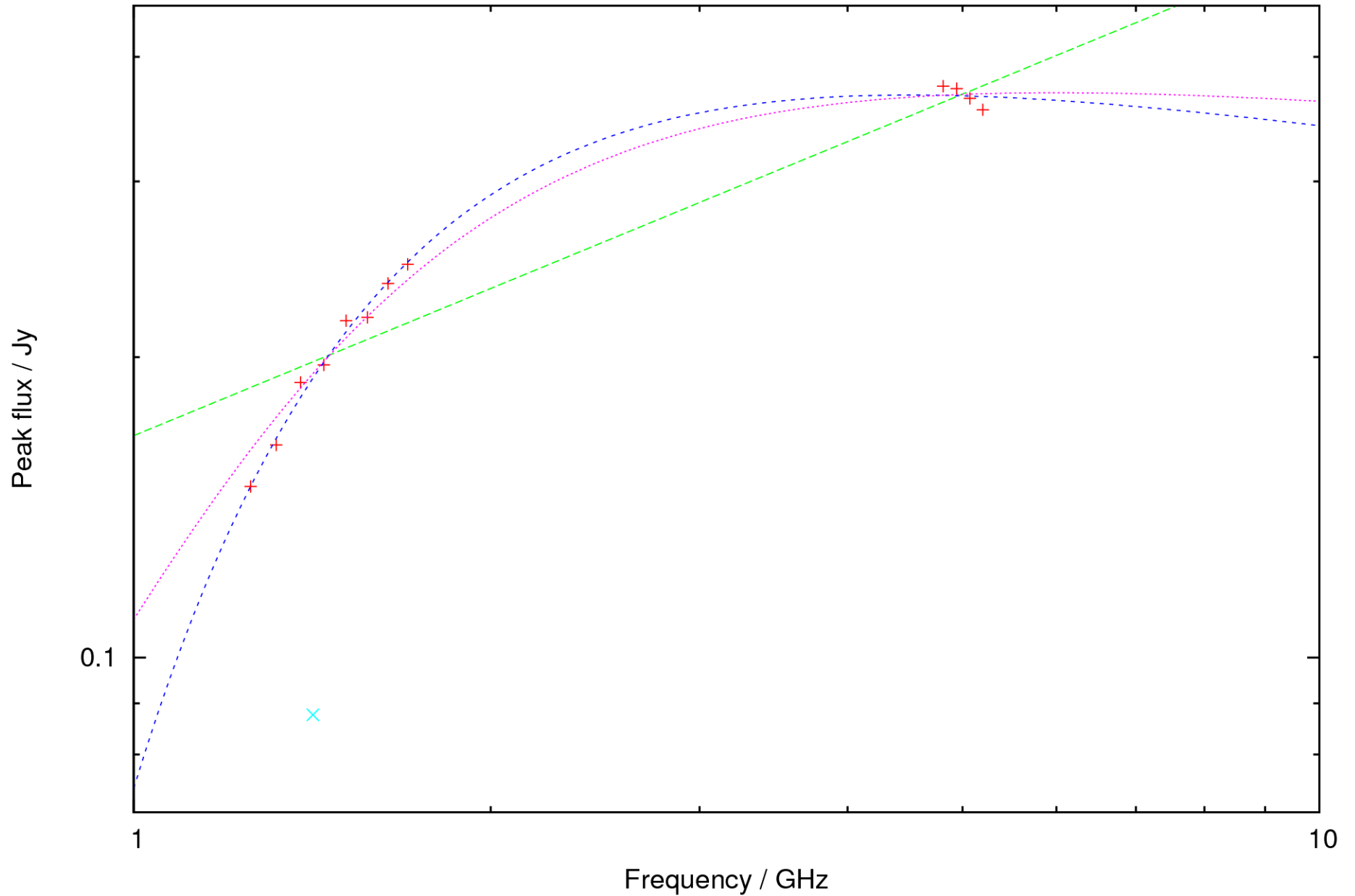


# WSRT 2013



# e-MERLIN SED

1.5 and 5 GHz e-MERLIN May/June 2013



# Aside: the e-MERLIN pipeline

Requires: python, ParseITongue, AIPS and Obit.

## **What it does:**

Loading & sorting  
Averaging  
Concatenating  
Flagmask + flagging  
Diagnostic plotting  
Calibration (with caveats)  
SEFD calculation

## **What it doesn't (yet) do:**

Calibrator models  
Mixed (line) mode  
Wide-field imaging

(but we're working on it!)

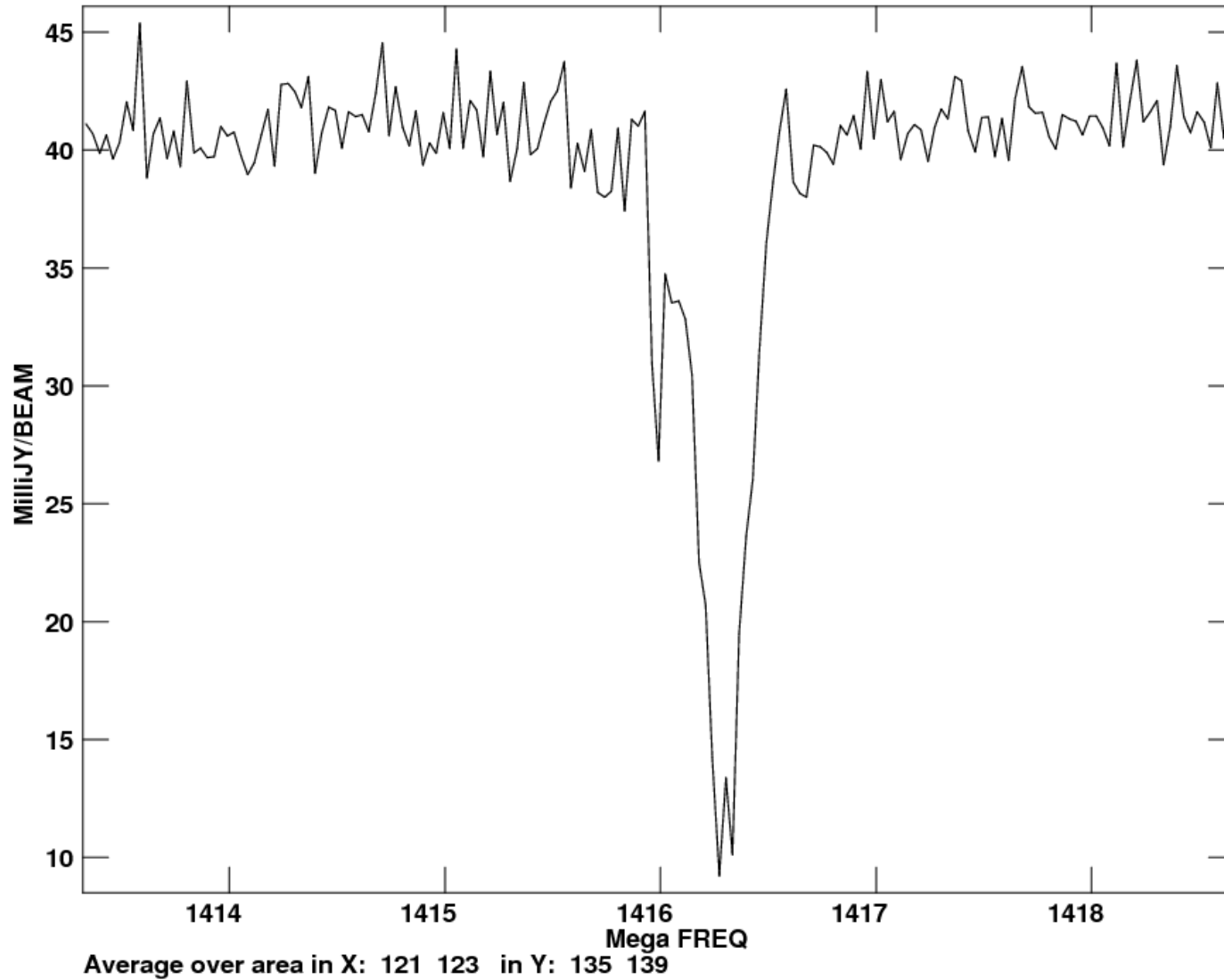
<http://www.e-merlin.ac.uk/observe/pipeline>

<http://github.com/mkargo/pipeline>

ascl:1407.017

# e-MERLIN line

Plot file version 1 created 05-OCT-2014 20:23:13  
NGC660 RA 01 43 02.31881 DEC 13 38 44.8600 N660 1417MHZ.IIM001.1





# Where next?

Further e-MERLIN observations made  
(evolution of spectra, SED, lots of lines)

A further two epochs of EVN (Oct 30<sup>th</sup>)  
(morphology, HI)

Westerbork HI – watch this space



