The background of the slide is a grid of colorful circular patterns. Each pattern consists of a central bright orange/red spot, surrounded by concentric rings of yellow, green, and blue. The patterns are arranged in a regular grid across the entire slide.

Observing Transient

Phenomena With e-VLBI

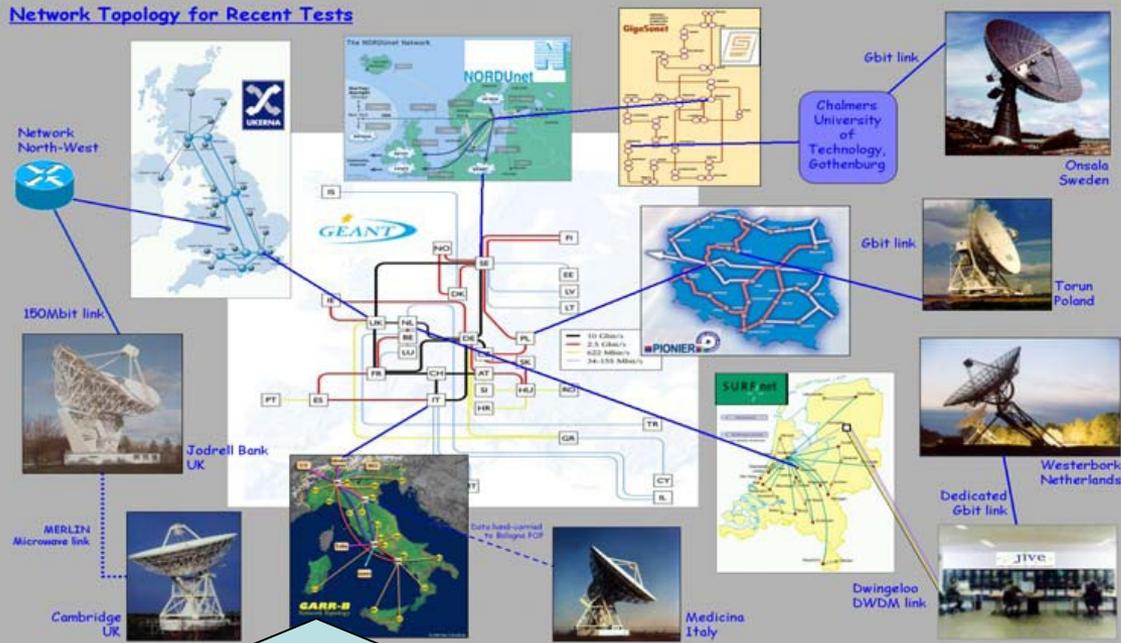
Valeriu Tudose

Astronomical Institute, University of Amsterdam

Collaborators:

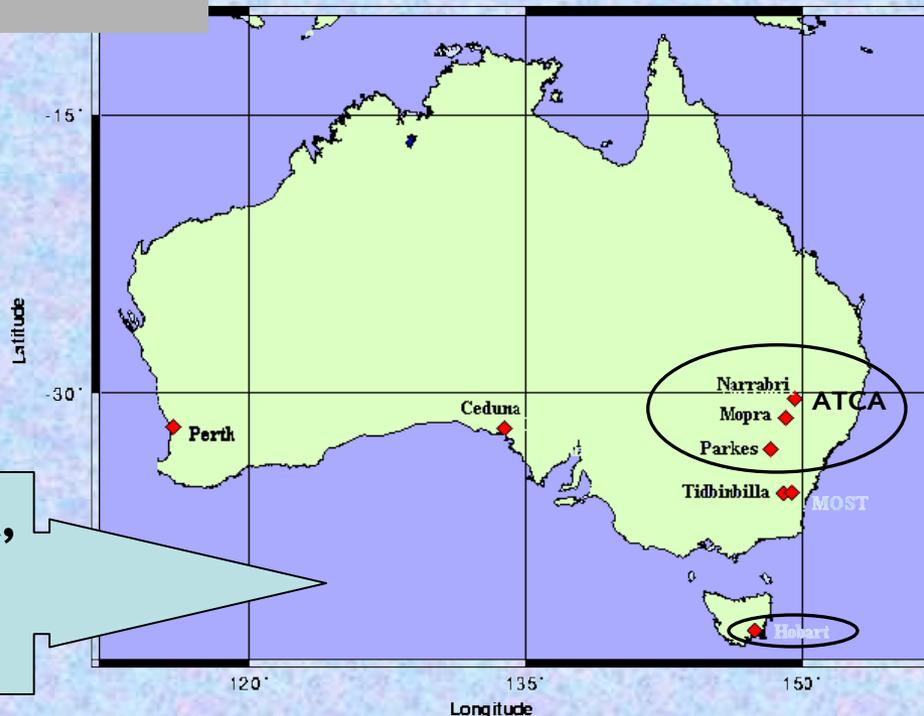
Rob Fender, Zsolt Paragi, Ralph Spencer, Mike Garrett, Anthony Rushton, Tasso Tzioumis

Network Topology for Recent Tests



Real-time VLBI: e-VLBI

VLBI Telescopes Within Australia



e-EVN (Electronic European VLBI Network)

Data transferred in real-time over optical fibers

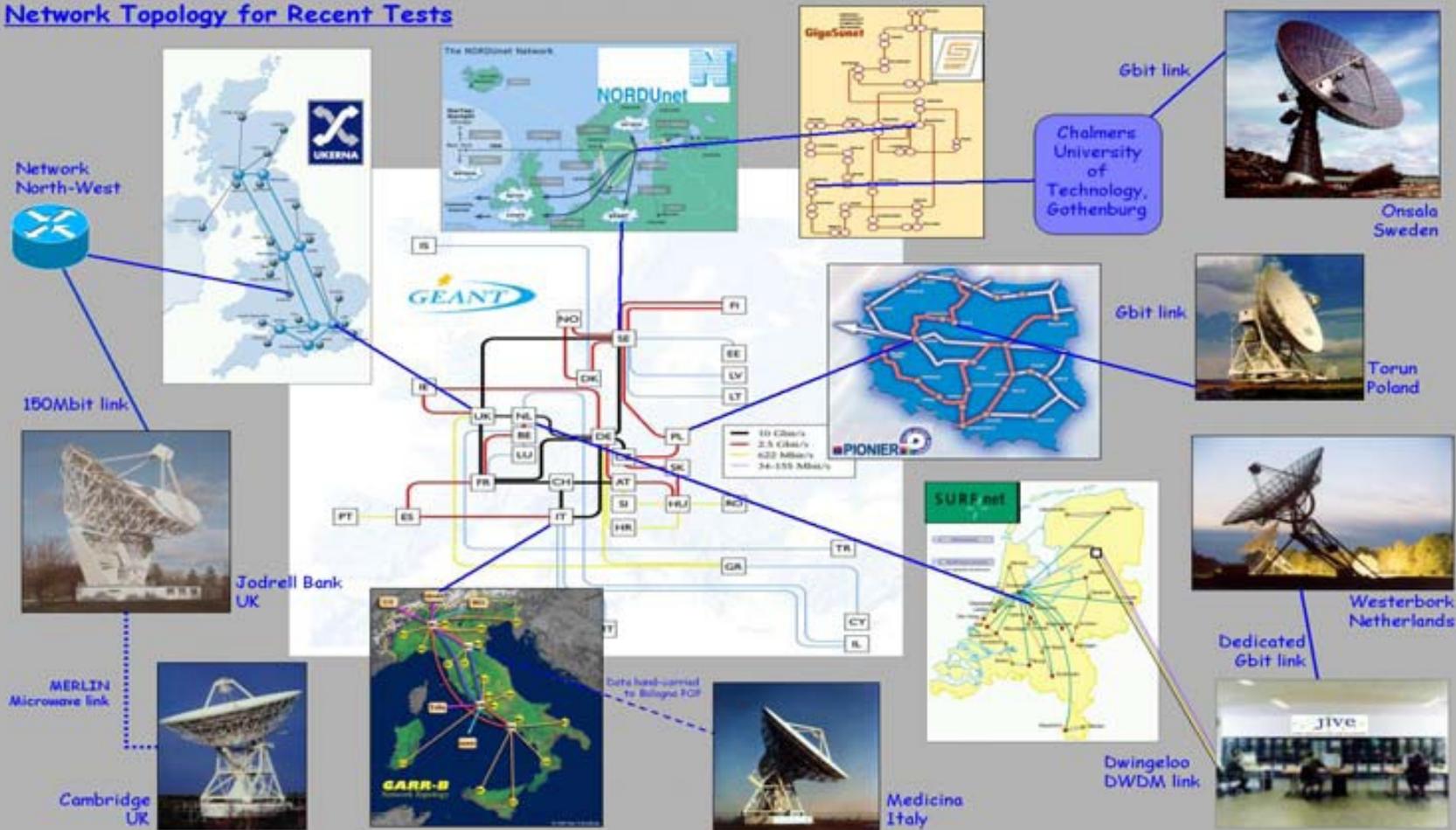
PAMHELA (Parkes, ATCA, Mopra, Hobart Electronic Long-baseline Array)

e-VLBI

- + enables very **rapid access** to data
- + improves the **decision making** process wrt potential follow-ups
- + provides the ability to make **informed decisions** wrt subsequent observations

European e-VLBI: e-EVN

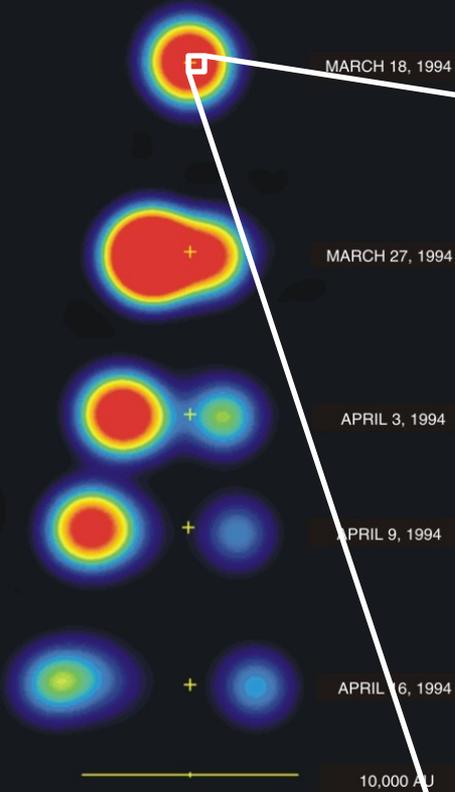
Network Topology for Recent Tests



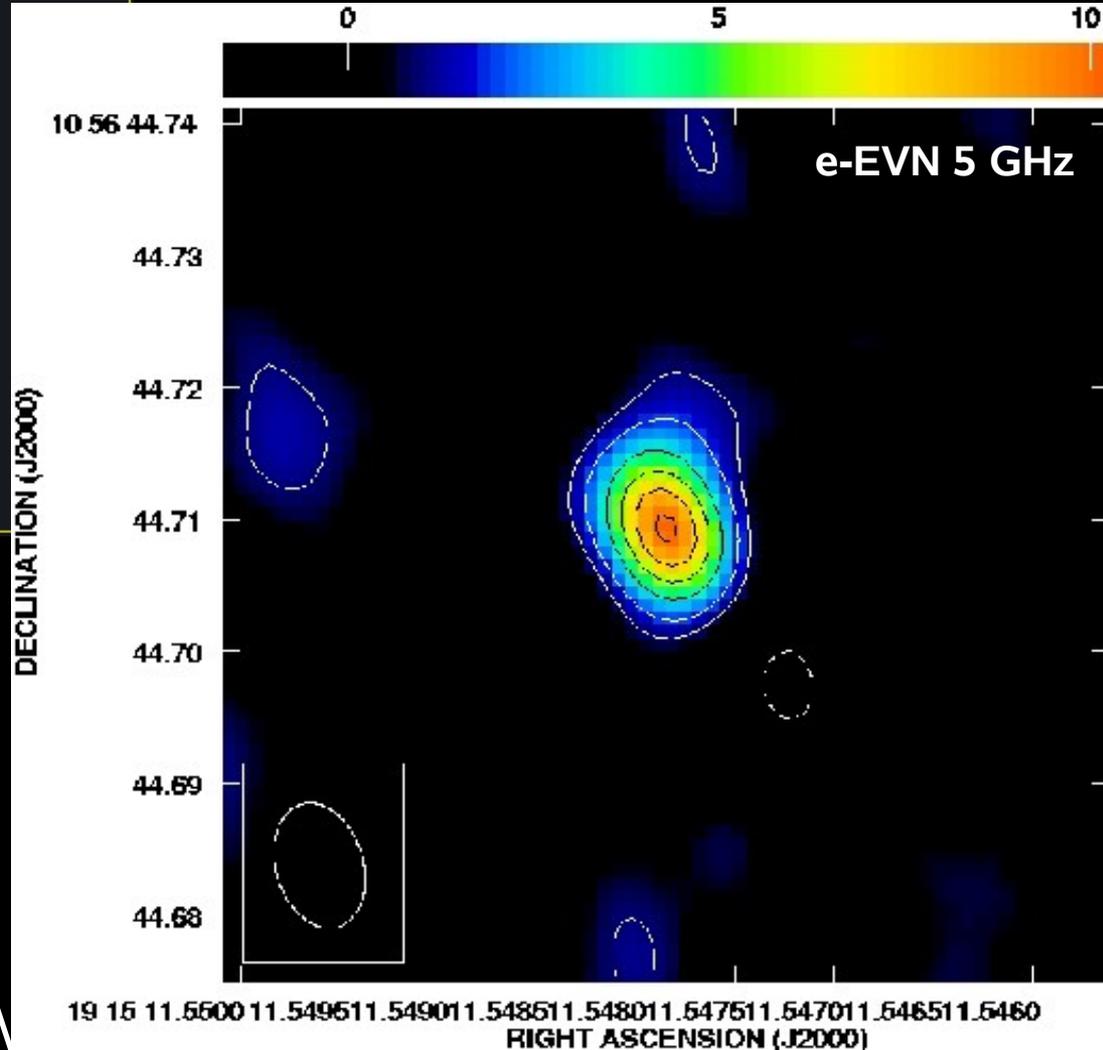
e-EVN (Electronic European VLBI Network)

VLA 8 GHz

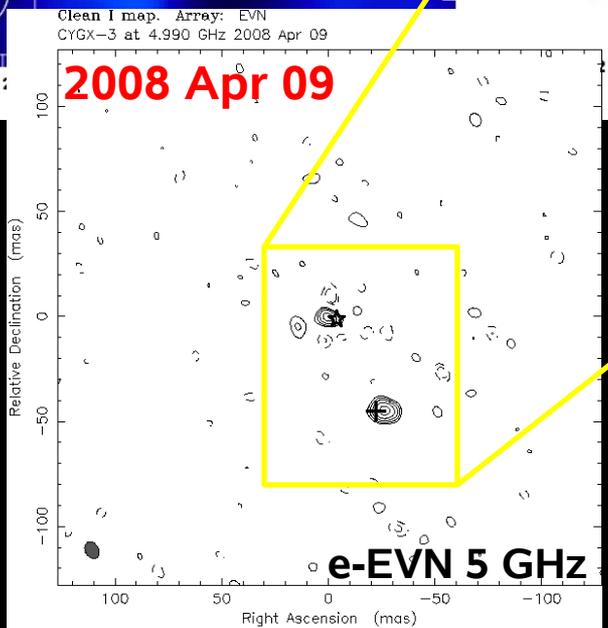
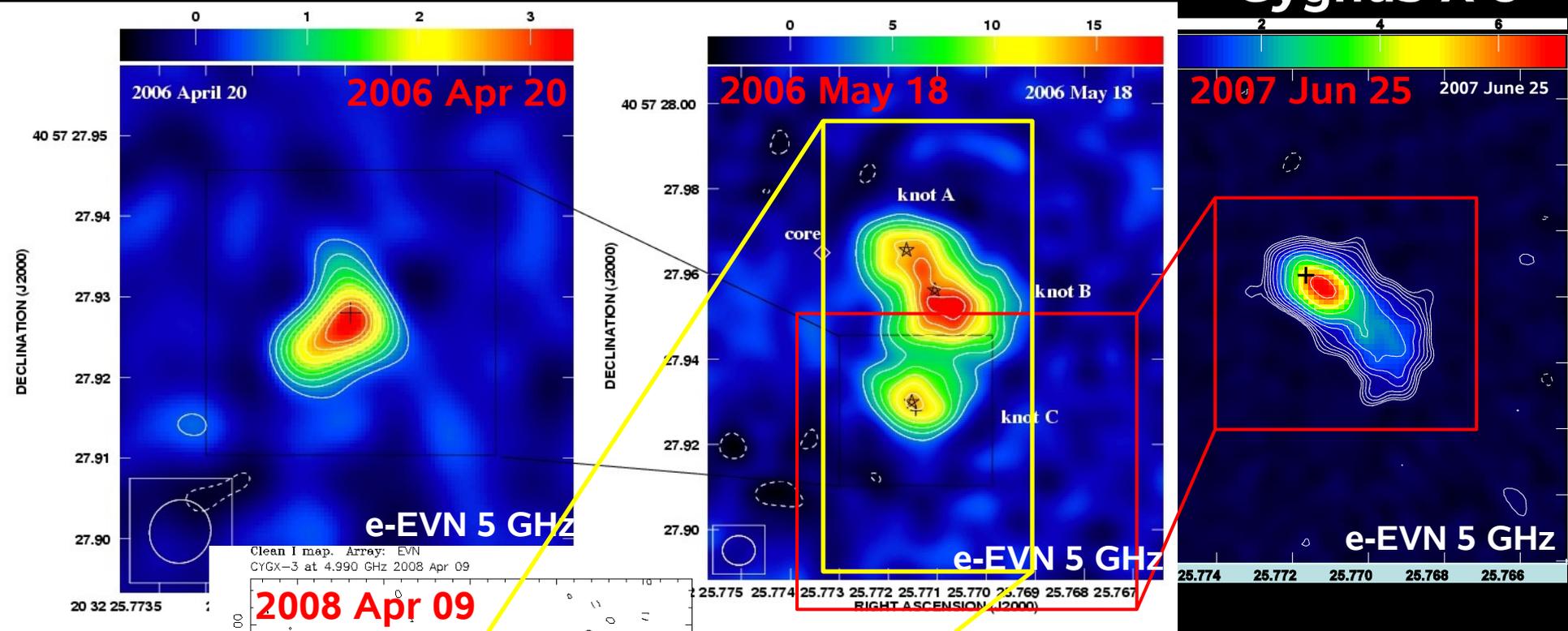
GRS 1915+105



Mirabel & Rodriguez, 1994 Nature 371, 46



Rushton et al., 2007 MNRAS 374, L47

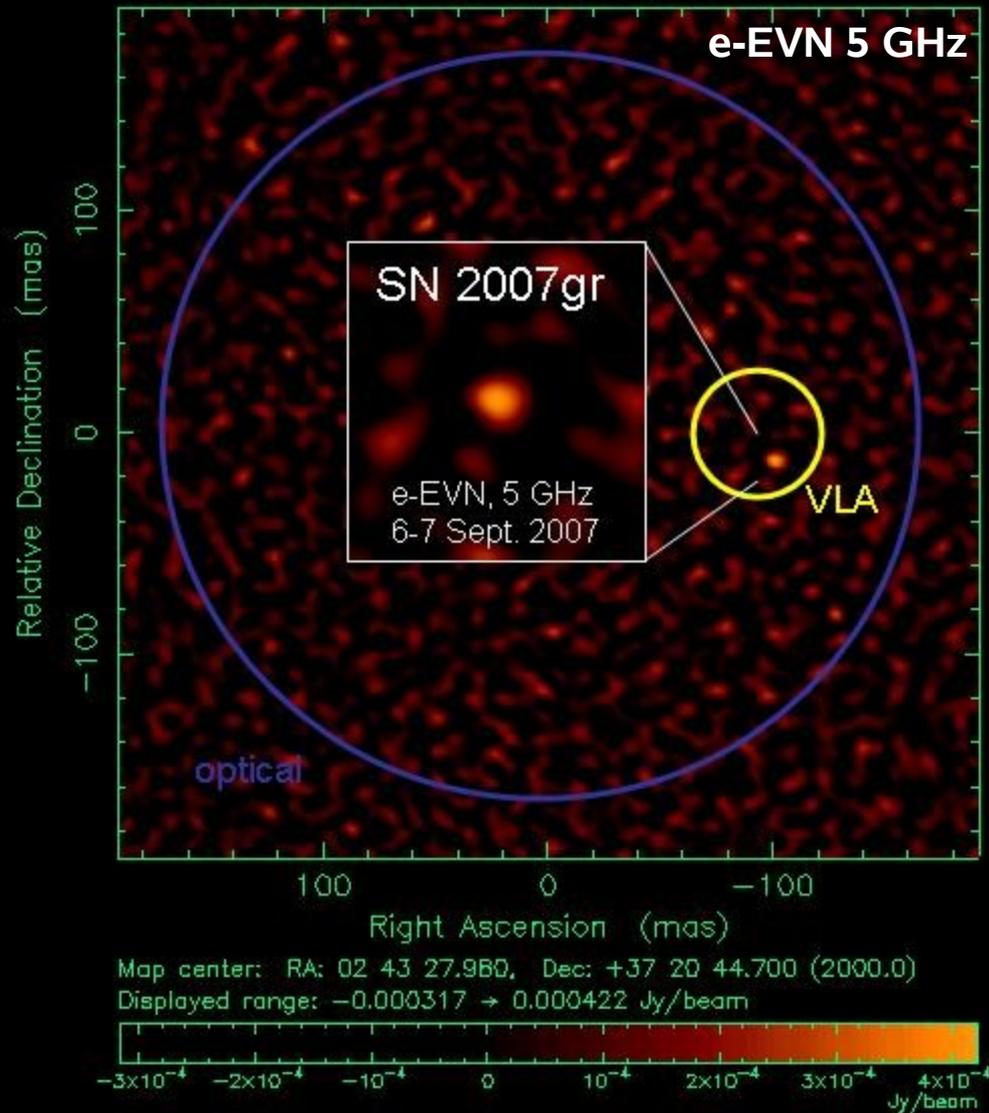


Clean I map. Array: EVN
 CYGX-3 at 4.990 GHz 2008 Apr 09

Map center: RA: 20 32 25.773, Dec: +40 57 27.965 (2000.0)
 Map peak: 0.000996 Jy/beam
 Contours: 0.0003 Jy/beam x (-1 -0.7 0.7 1 1.41 2
 Contours: 2.83)
 Beam FWHM: B.39 x 6.2 (mas) at 30.3°

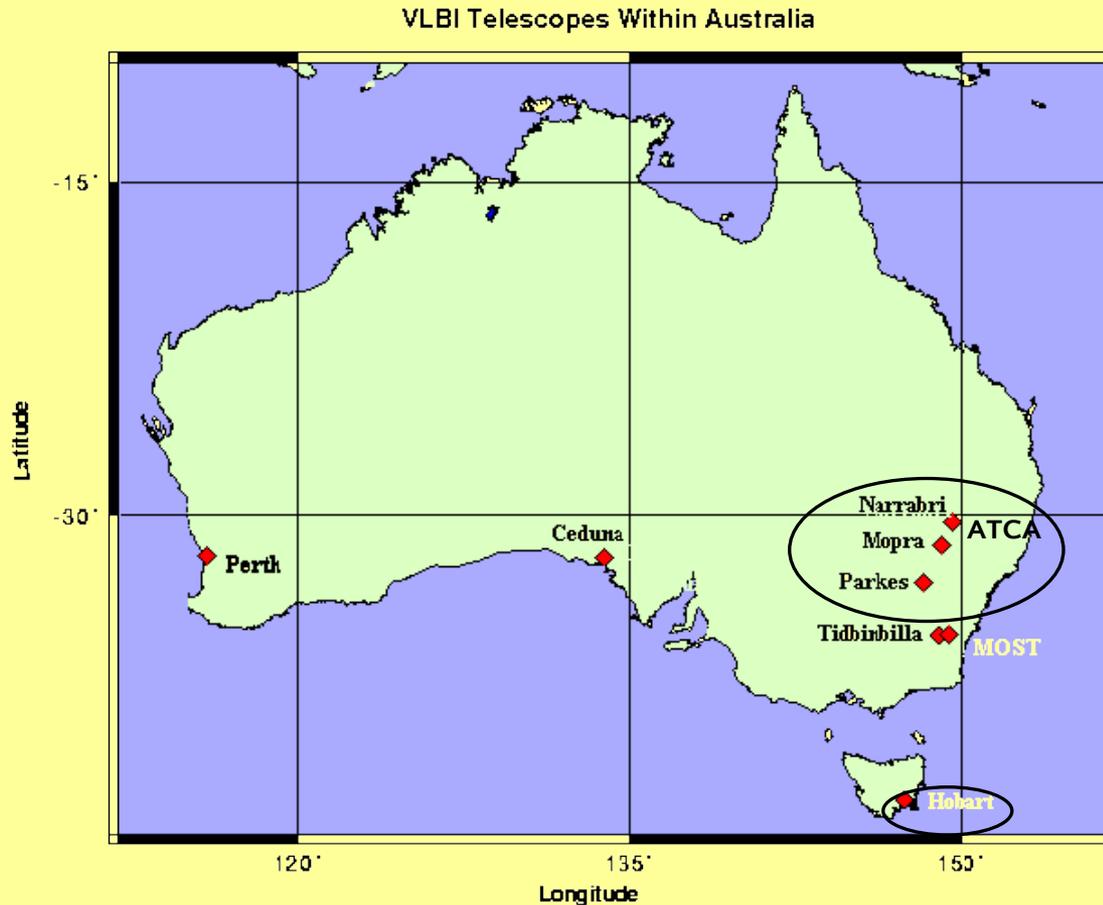
SN 2007gr

Residual I map. Array: EVN
SN2007GR at 4.974 GHz 2007 Sep 06



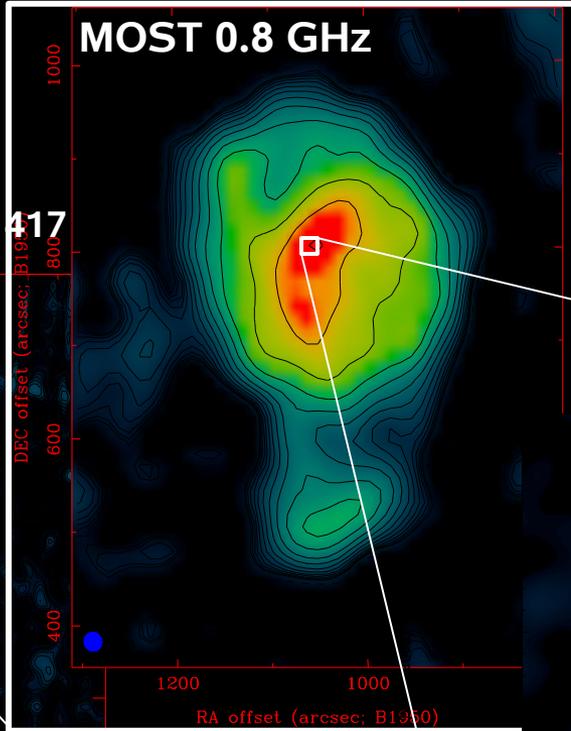
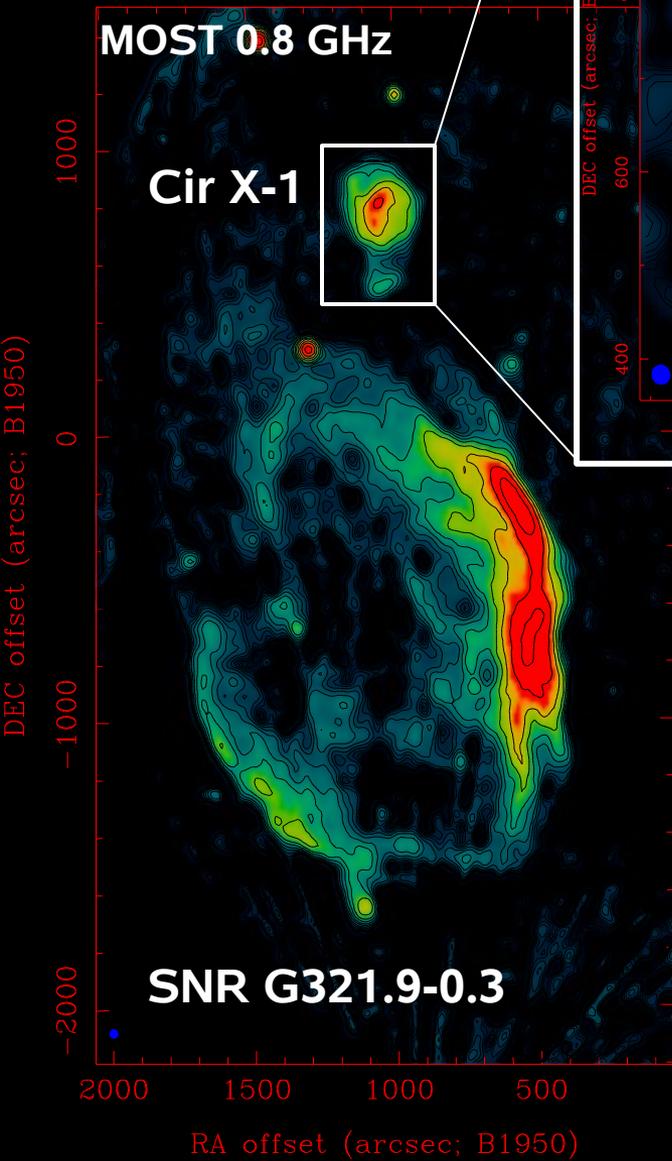
Paragi et al., 2007 ATel 1215

Australian e-VLBI: **PAMHELA**

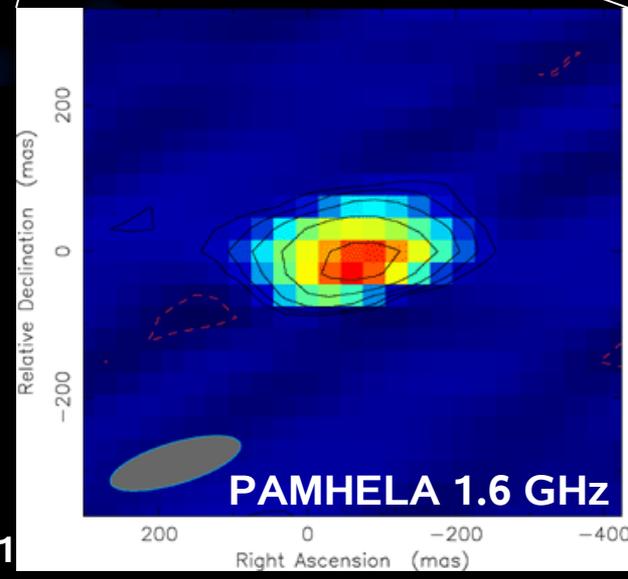
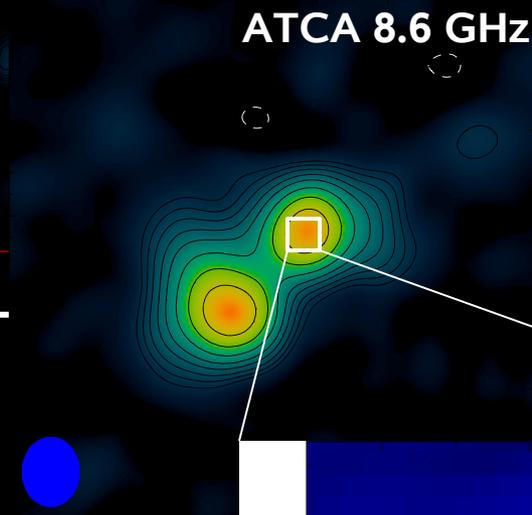


PAMHELA (**P**arkes, **A**TCA, **M**opra, **H**obart **E**lectronic
Long-baseline **A**rray)

Tudose et al., 2006 MNRAS 372, 417



Circinus X-1



Phillips et al., 2007 MNRAS 380, L11

It is the year 2015...

