

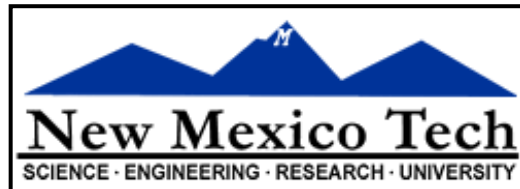
Proposal Writing and PST Demo

Joan Wrobel, EVLA Scheduling Officer



Twelfth Synthesis Imaging Workshop

2010 June 8-15



Outline

- Proposal writing
 - Generic
 - EVLA and VLBA

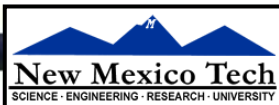
NRAO EVLA



NRAO VLBA



- Demonstration of NRAO Proposal Submission Tool (PST)
- Questions



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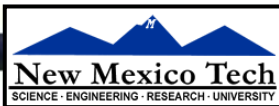
NRAO EVLA



NRAO VLBA



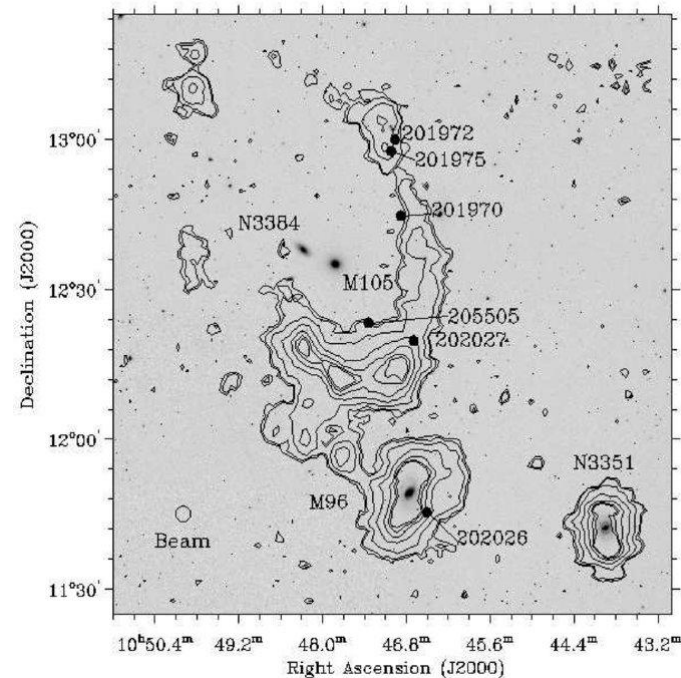
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Generic

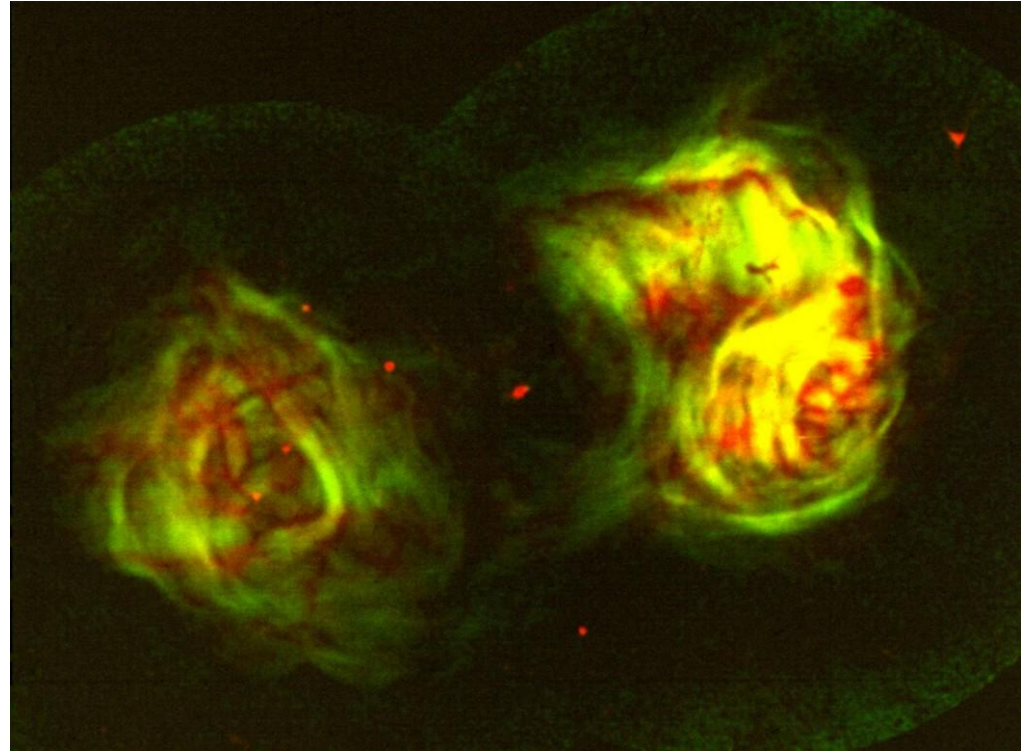
- Start with scientific idea and target list
- Draft a scientific justification
 - Write to astrophysically-literate but non-expert reviewers
 - Give science context and motivation
 - Pose specific science questions
 - State specific science goals
 - Describe target selection criteria
 - Say how proposed observations will ...
 - Answer the science questions
 - Achieve the science goals

200 kpc HI Ring in Leo Group
Arecibo 1.4 GHz S. Stierwalt
Primordial versus tidal ring?
Look for dark halos in dwarfs ●



Generic

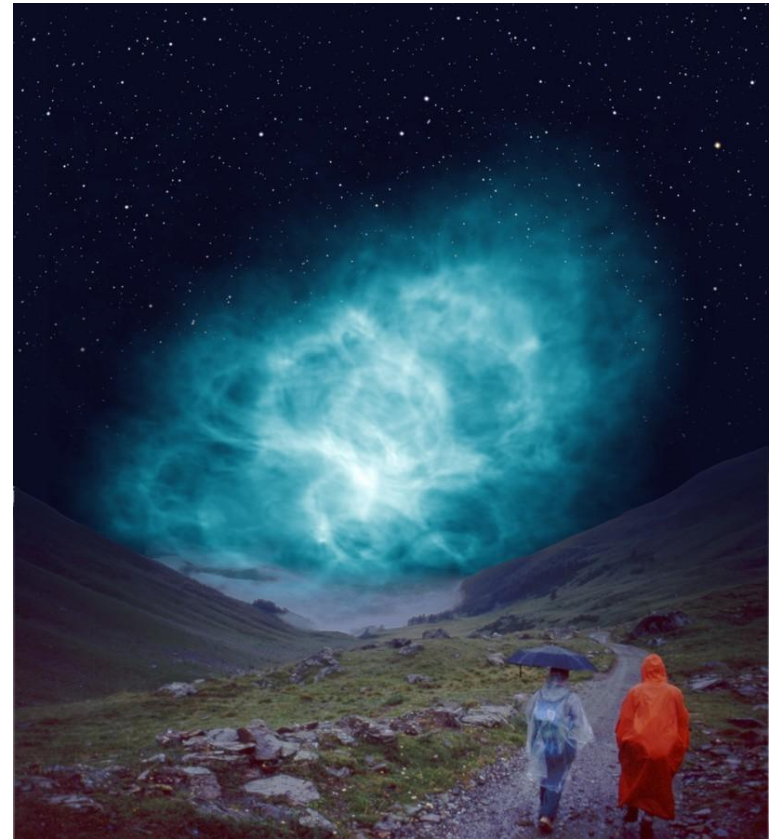
- Specify required ...
 - Angular resolution
 - Largest angular scale
 - Observing frequency
 - Observing bandwidth
 - Stokes parameters
- Select trial array
 - EVLA, VLBA, MERLIN, EVN, GMRT, SMA, CARMA, ATA ...



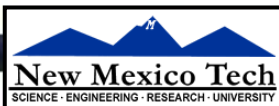
Radio Galaxy Fornax A
VLA 1.4 GHz 1.0d x 0.7d R. Ekers
NRAO Image Gallery

Generic: Evaluate Trial Array

- Special needs
 - Redshifted HI ?
 - Redshifted CO ?
- Geometry
 - Target above elevation limit ?
 - Snapshot or full u-v coverage ?
- Interferometer sensitivity
 - Signal-to-noise to self-cal target ?
- Image sensitivity
 - Enough signal-to-noise on target ?
 - Dynamic-range limited ?

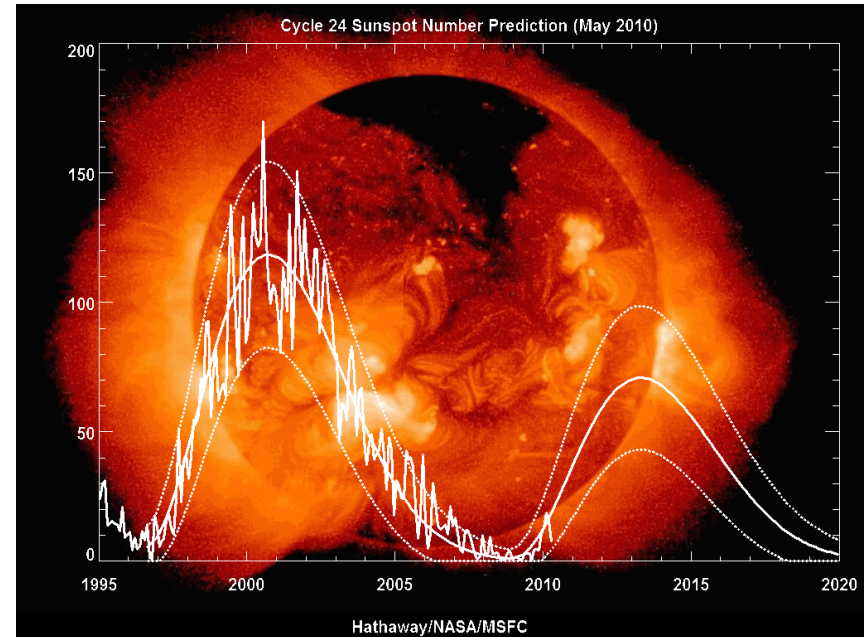


Supernova Remnant Crab Nebula
VLA 5GHz 7' x 5' M. Bietenholz



Generic: Evaluate Trial Array

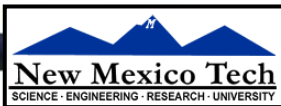
- Enough field of view ?
 - Primary beam attenuation
 - Bandwidth smearing
 - Time-average smearing
 - Non-coplanar baselines
- Optimal timeframes ?
 - Time of day
 - Season
 - Year \sim sunspot number
- If trial array fails, pick another
- If trial array passes, search its archive for suitable data
 - If none, complete scientific and technical justification, submit proposal



Sun TRACE X-rays

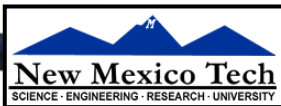
EVLA/VLBA Proposals

- See NRAO Call for Proposals at <http://science.nrao.edu/enews>
- Add cover information via NRAO Proposal Submission Tool (PST)
 - Access NRAO PST at <http://my.nrao.edu>
 - For EVLA, VLBA, GBT or any joint combination thereof
- Add scientific and technical justification as a pdf file
 - 4 pages for a regular proposal
 - 6 pages for an EVLA resident shared risk proposal
 - 10 pages for a large proposal (200 or more NRAO hours)
- NRAO staff co-author optional
- Submit via NRAO PST



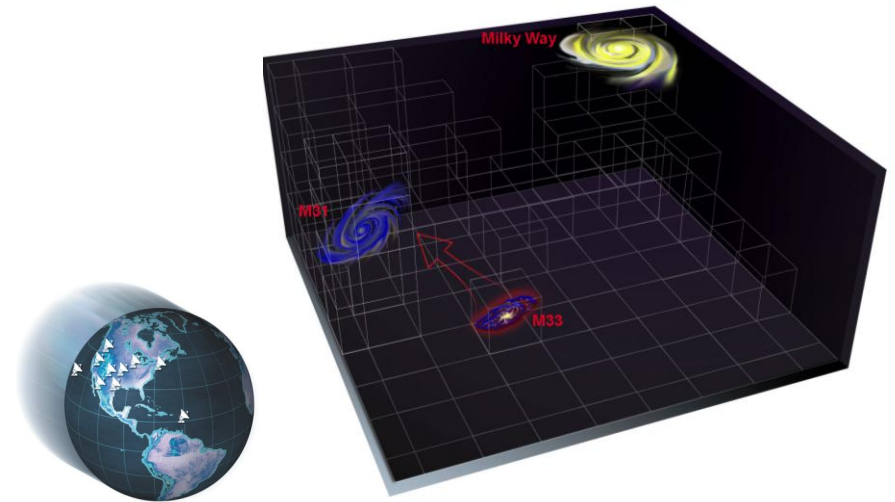
EVLA/VLBA Proposal Handling

- Received for deadlines 1 Feb, 1 Jun, 1 Oct for trimesters B, C, A
- Classified by scientific categories
- Sent to category's referees
- Referees return ratings and comments
- Ratings and comments sent to Proposal Selection Committee (PSC)
 - David Hough, Deidre Hunter, Stan Kurtz, Ylva Pihlstrom, Arnuj Sarma, Russ Taylor, Stephen White, Min Yun
 - Barry Clark, Mark Claussen, Bob Dickman, Dale Frail, Joan Wrobel
- PSC meets Apr, Aug, Dec
- PSC results emailed to proposers 1 May, 1 Sep, 1 Jan
- Details at <http://science.nrao.edu/evla/proposing/timeallocation.shtml>
- Changes to this scheme are coming in 2011

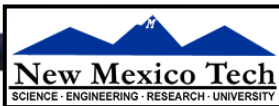


EVLA/VLBA Proposals and Students

- Consider submitting a deadline early
 - Use referee feedback to prepare, re-submit improved proposal
- Are proposed observations for your thesis ?
 - If yes, amend your user profile at <http://my.nrao.edu>
 - Add Plan of Dissertation ~ timeline + NRAO resources
 - Update graduation year
- Are you eligible for funding ?
 - US universities and colleges
 - Regular or Large proposals
 - Apply via NRAO PST
- Donate thesis copies to NRAO
 - <http://www.nrao.edu/library>

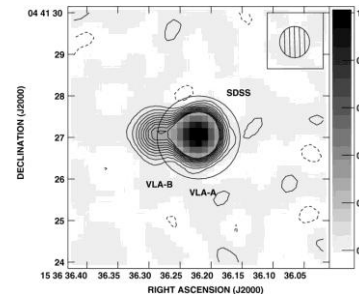


VLBA 22 GHz A. Brunthaler



Other Proposal Types and Routes

- EVLA/VLBA rapid response science
 - Exploratory
 - Eg, quick follow-up of recent discovery
 - Target of opportunity:
 - Eg, unpredicted phenomenon
 - <http://science.nrao.edu/evla/proposing/rapid.shtml>
- Joint proposal routes
 - Chandra/EVLA/VLBA
 - <http://cxc.harvard.edu/>
 - Fermi/EVLA/VLBA
 - <http://fermi.gsfc.nasa.gov/ssc/>



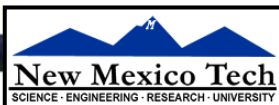
Binary Black
Hole Candidate
VLA 8.5 GHz
J.Wrobel



Chandra



Fermi



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