

The NenuFAR Long-Period Transient Monitoring Programme



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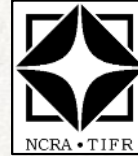


The Team



LPC2E (France)

- Fabian Jankowski
- Pranav Limaye
- Jean-Mathias Griebmeier
- Gilles Theureau



NCRA (India)

- Yogesh Maan
- Ashish Kalyan



SKAO (Australia)

- Xiang Zhang



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The Dataset

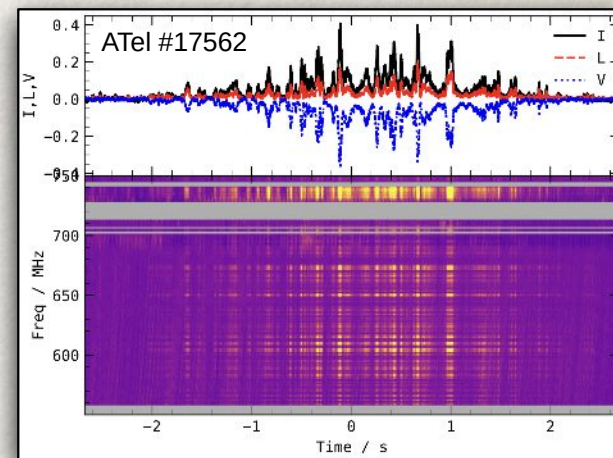
- NenuFAR telescope (10 - 85 MHz)
- Northern LPTs ($\delta > -20$ deg)
- Started in mid-2023
- Regular observing cadence (~monthly)
- ~10-50 epochs for each LPT so far
- Currently 5 LPTs monitored (6 total)



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CHIME J1634+4450



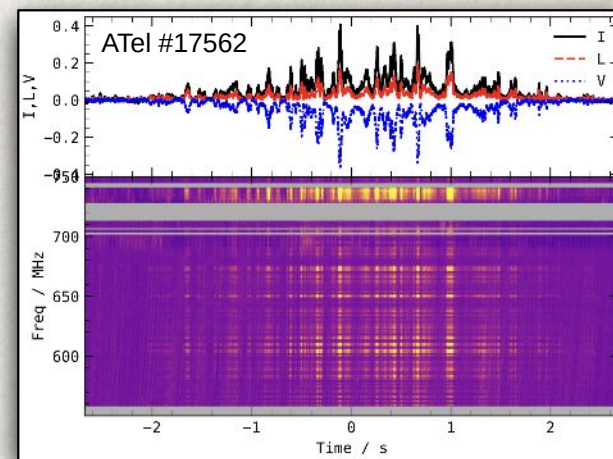
GMRT data, P0~841s, W~4s,
DM~25 pc/cc



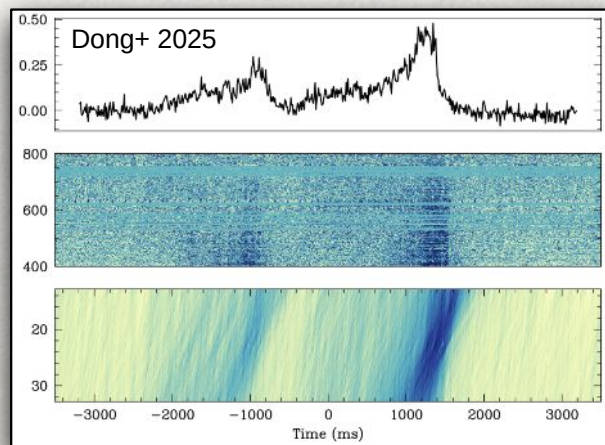
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CHIME J1634+4450



CHIME J0630+25



CHIME data,
P0~421s, W~2s,
DM~22 pc/cc

GMRT data, P0~841s, W~4s,
DM~25 pc/cc



Challenges & Solutions

Challenges

- Wide profiles (several seconds)
- Data baseline unstable
- Uncertain DMs, sometimes high DMs
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- Focus on low-DM LPTs
- Space observations throughout activity cycle
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Current & Future Work

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- Refine synthesis imaging code
- Test pipelines
- Time-windowed searches
- Systematic processing & candidate review
- Publication



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Need help. Want to get involved?

