

First Successful Effelsberg Pulsar Observations

Jason Hessels

on behalf of

Effelsberg LOFAR Team (James Anderson et al.)

LOFAR Pulsar Working Group (Ashish Asgekar,
Anastasia Alexov)

ASTRON HPC Group (Alwin de Jong, Jan David Mol)



LOFAR Status Meeting
September 2nd, 2009



First Effelsberg Pulsar Observations

From August 19-21st, 2009

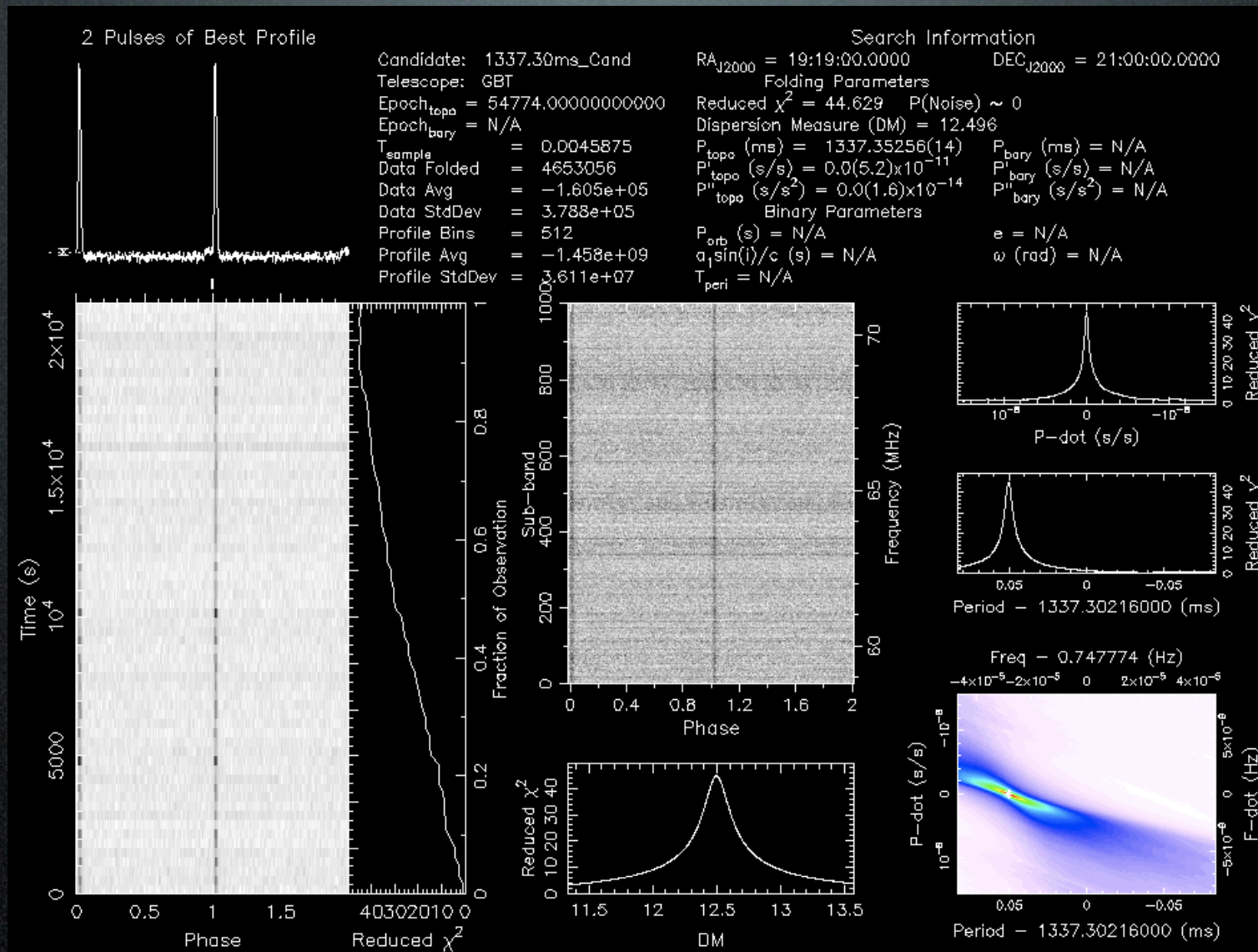
Station	Obs ID	Source	Config	Results
DE601 (Effelsberg)	L2009_13678	B0950+08	LBA, 60-80MHz, 16 chans, 4.6ms, 1hr	Detected!
DE601 (Effelsberg)	L2009_13693	B1919+21	LBA, 60-80MHz, 16 chans, 4.6ms, 6hr	Detected!
DE601 (Effelsberg)	L2009_13	B0943+10	LBA, 10-30MHz, 256 chans, 10.3ms, 2hr	In progress
DE601 (Effelsberg)	L2009_13729	B1919+21	LBA, 10-30MHz, 256 chans, 10.3ms, 2hr	In progress

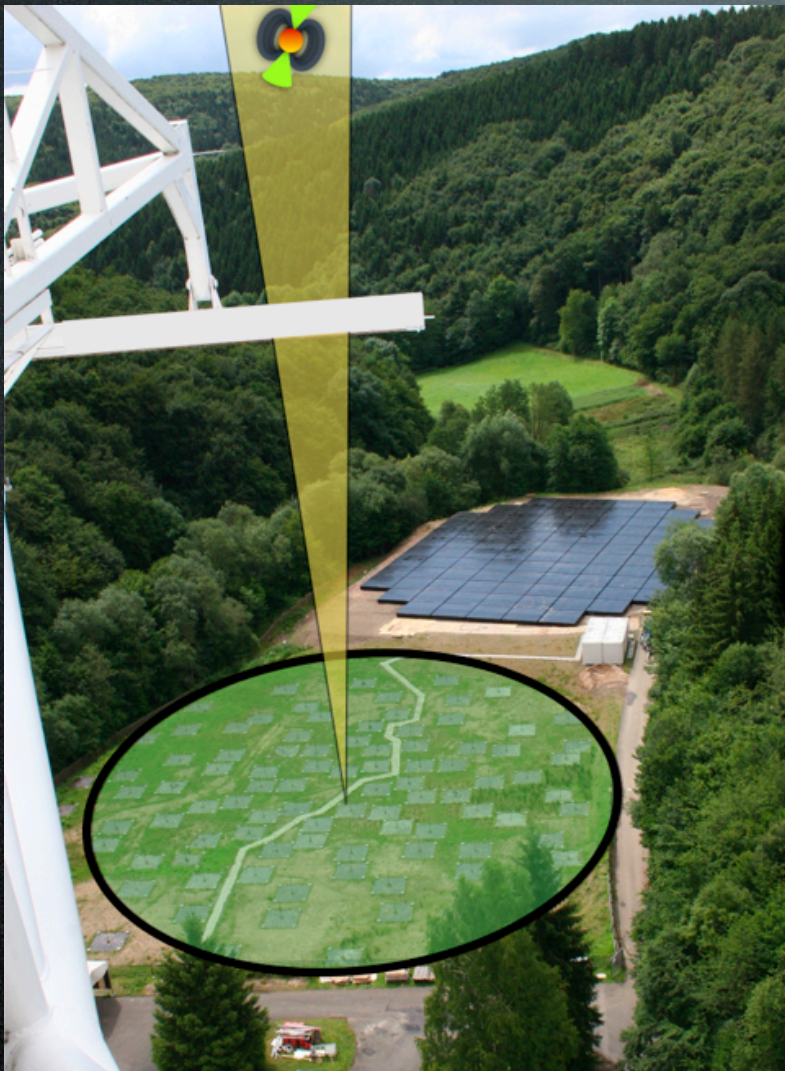


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B1919+21 with Effelsberg



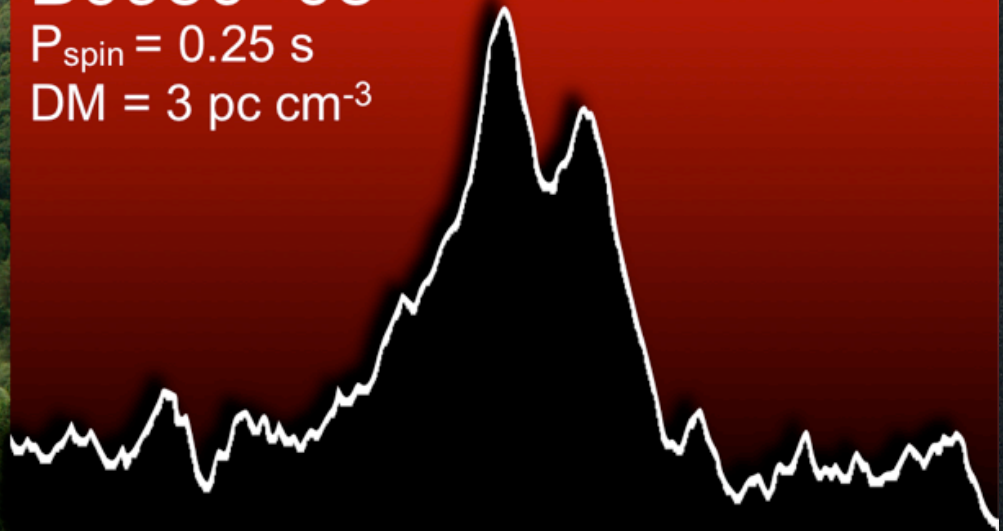


Effelsberg (DE601)
First Pulsar Detection

B0950+08

$P_{\text{spin}} = 0.25 \text{ s}$

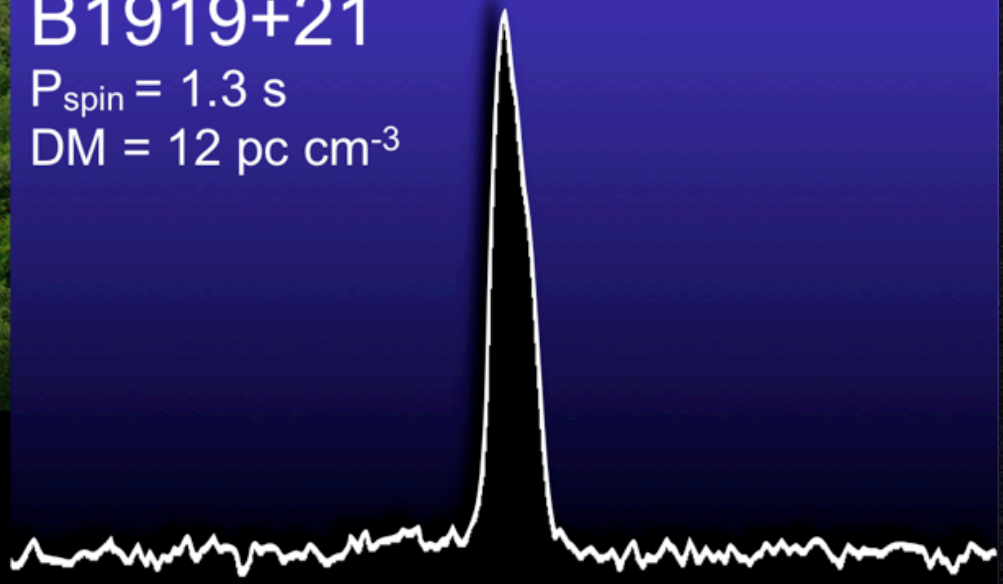
$DM = 3 \text{ pc cm}^{-3}$



B1919+21

$P_{\text{spin}} = 1.3 \text{ s}$

$DM = 12 \text{ pc cm}^{-3}$

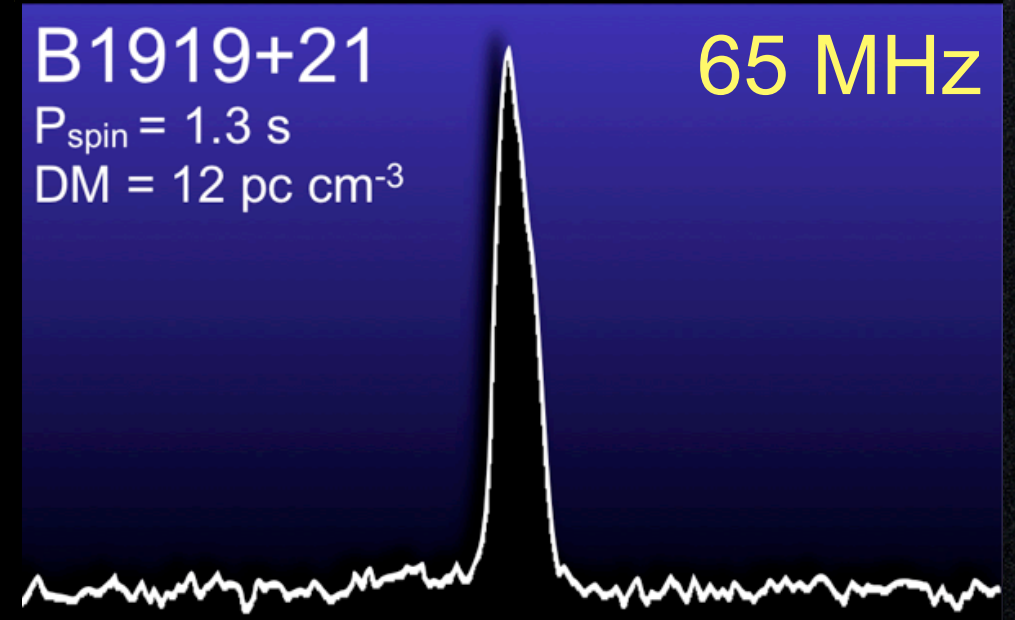
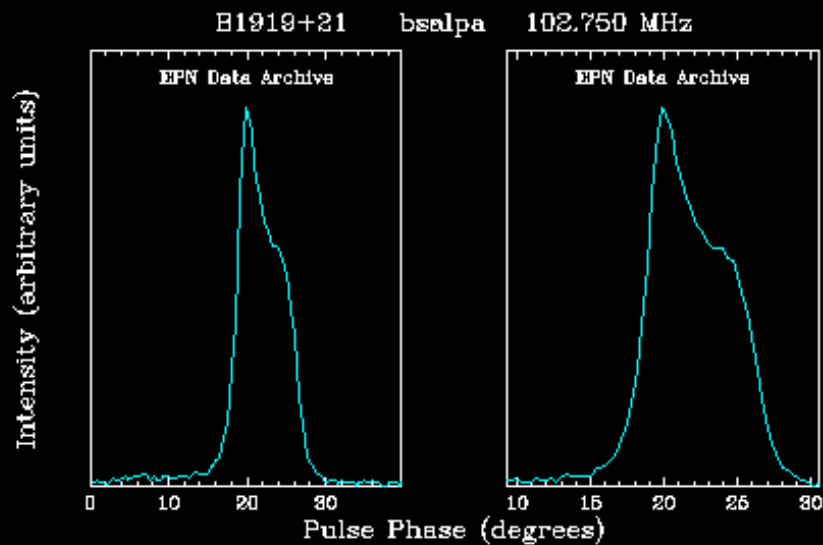
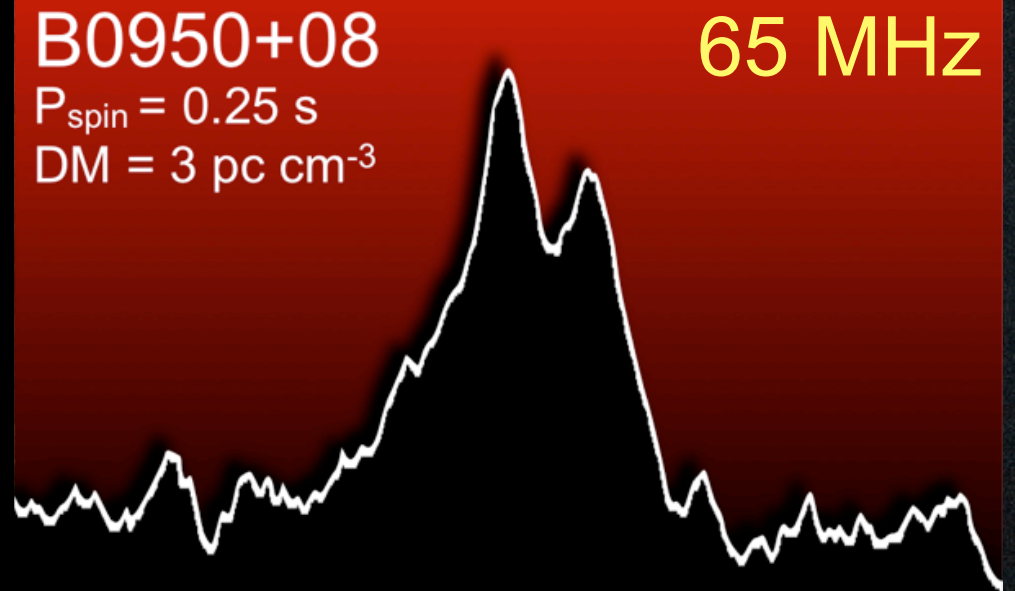
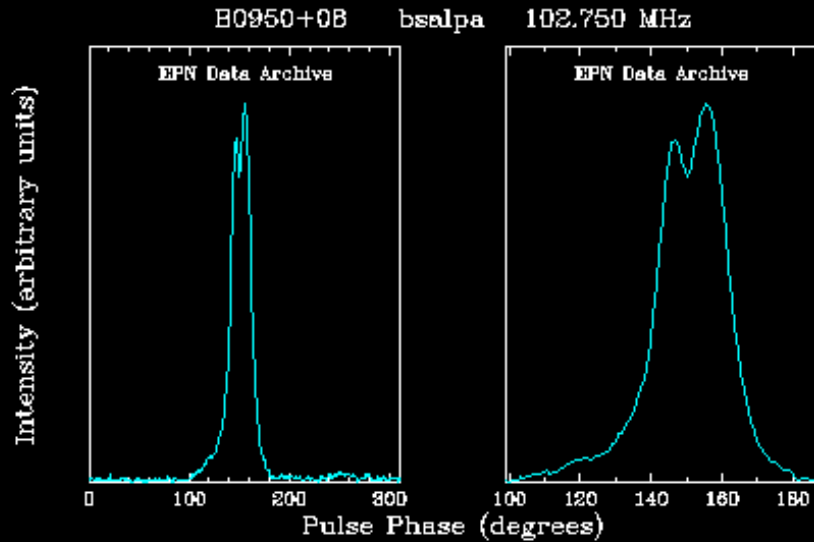


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Next Steps

- Multi-station, simultaneous LBA/HBA observations to cover whole 10-240MHz range.
- For this, we can use the bf2h5 write of Alwin de Jong.
- Also need to try simultaneous imaging / beam-formed observations running on BG/P.
- Will want to use Effelsberg station in next Pulsar Busy Week (Sept. 21-25th), especially if HBAs are ready by then.

Summary

- Achieved pulsar first light with the Effelsberg LBAs.
- Limited to 30 subbands per board.
- Data between 10-30MHz also acquired and being analyzed.
- bf2h5 reworked by Alwin de Jong, can now write 62 subbands per board.