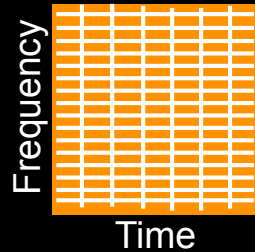


Pulsar searching

Standard Pulsar/Fast Transient Search

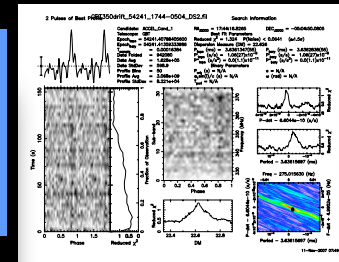


RFI
Excision



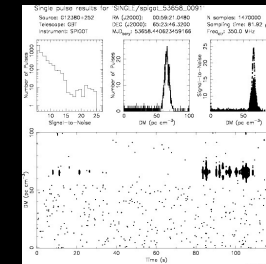
Dedispersion

FFT
Search



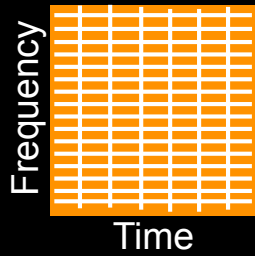
Cand
Sifting

Single
Pulse
Search



Cand
Sifting

Standard Pulsar/Fast Transient Search



RFI Excision

DM5
Time

DM4
Time

DM3
Time

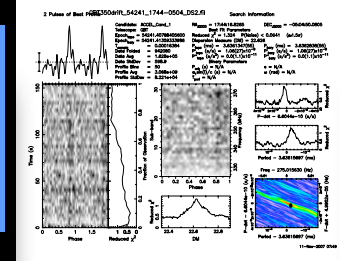
Dedispersion

DM2
Time

DM1
Time

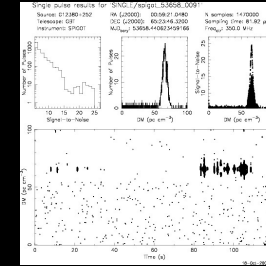
DM0
Time

FFT Search



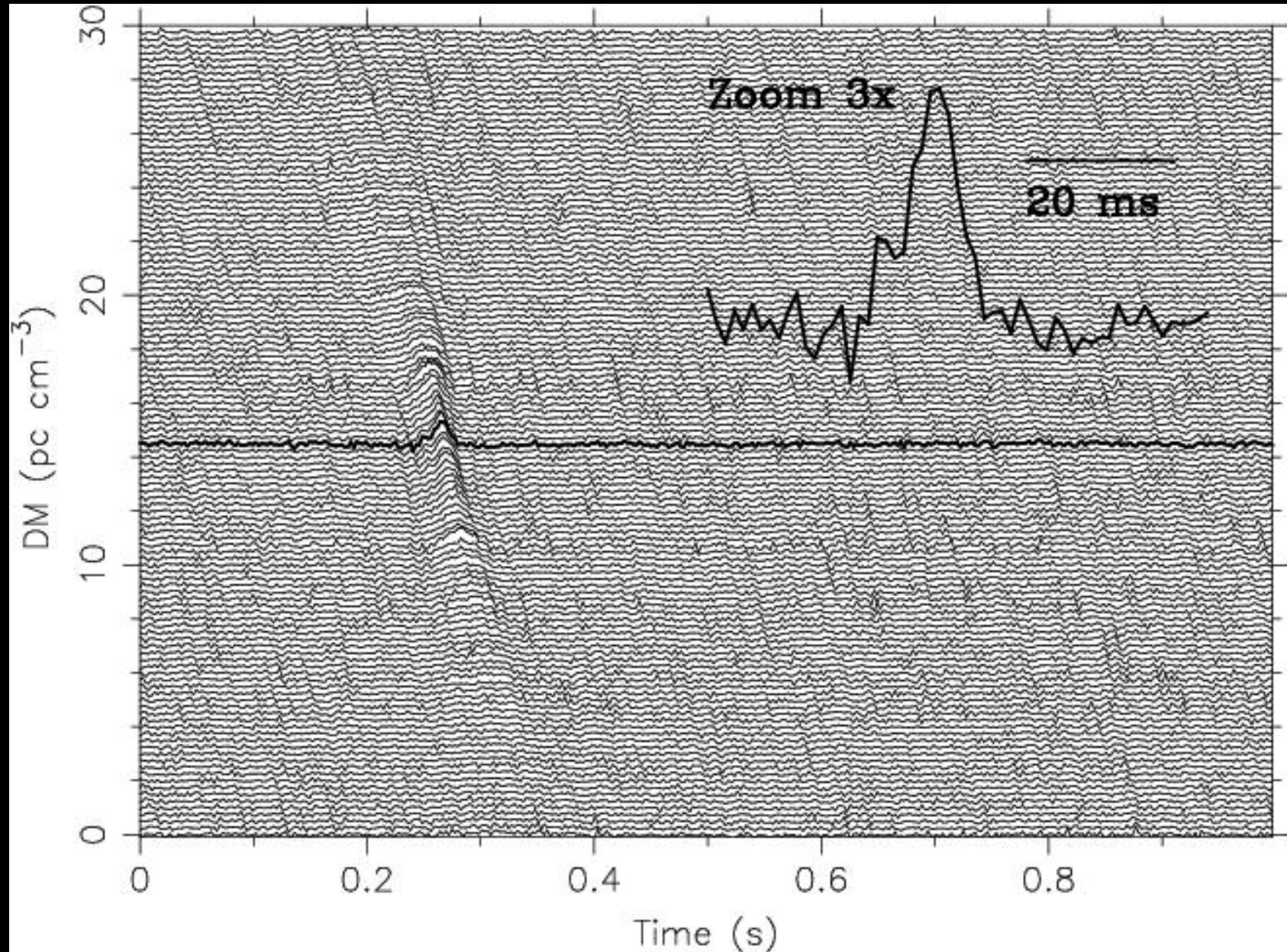
Cand Sifting

Single Pulse Search

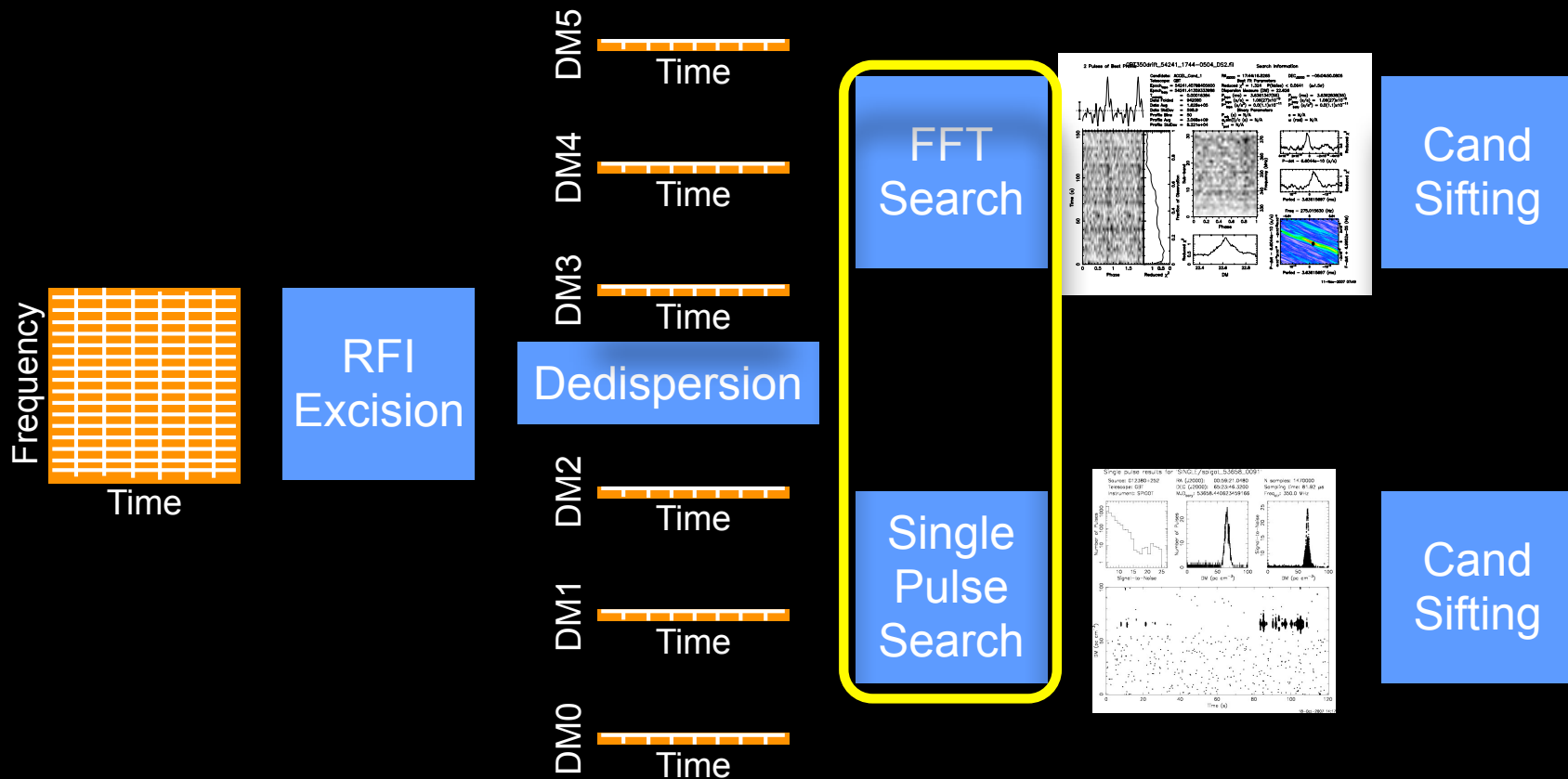


Cand Sifting

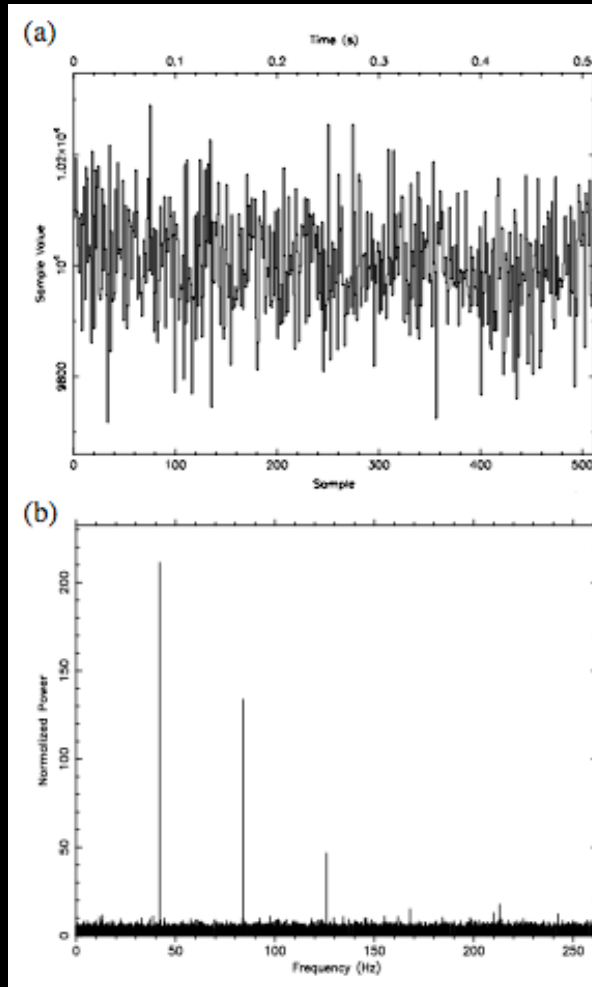
Searching over dispersion measure



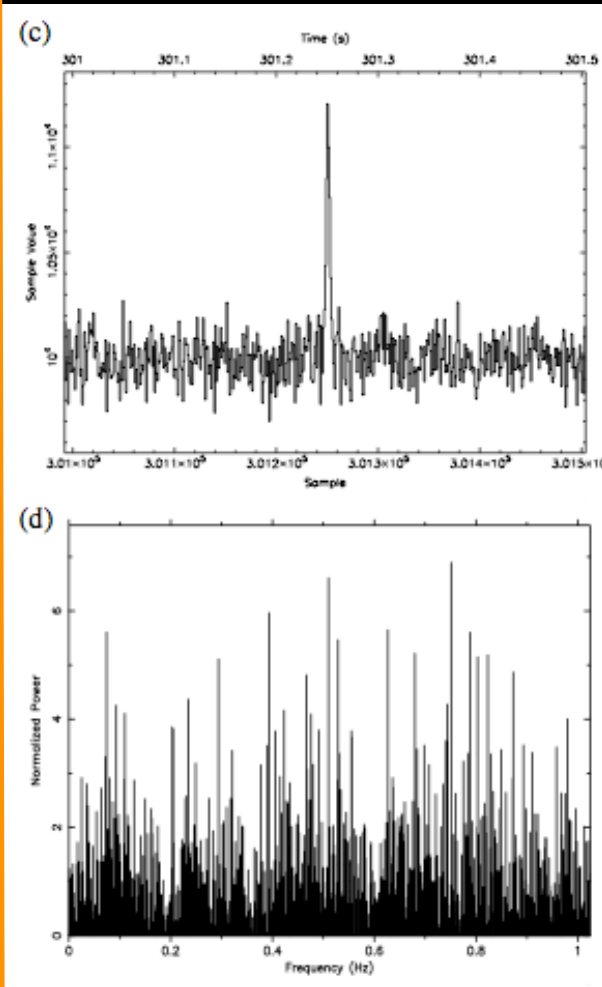
Standard Pulsar/Fast Transient Search



Periodic signals vs. bursts

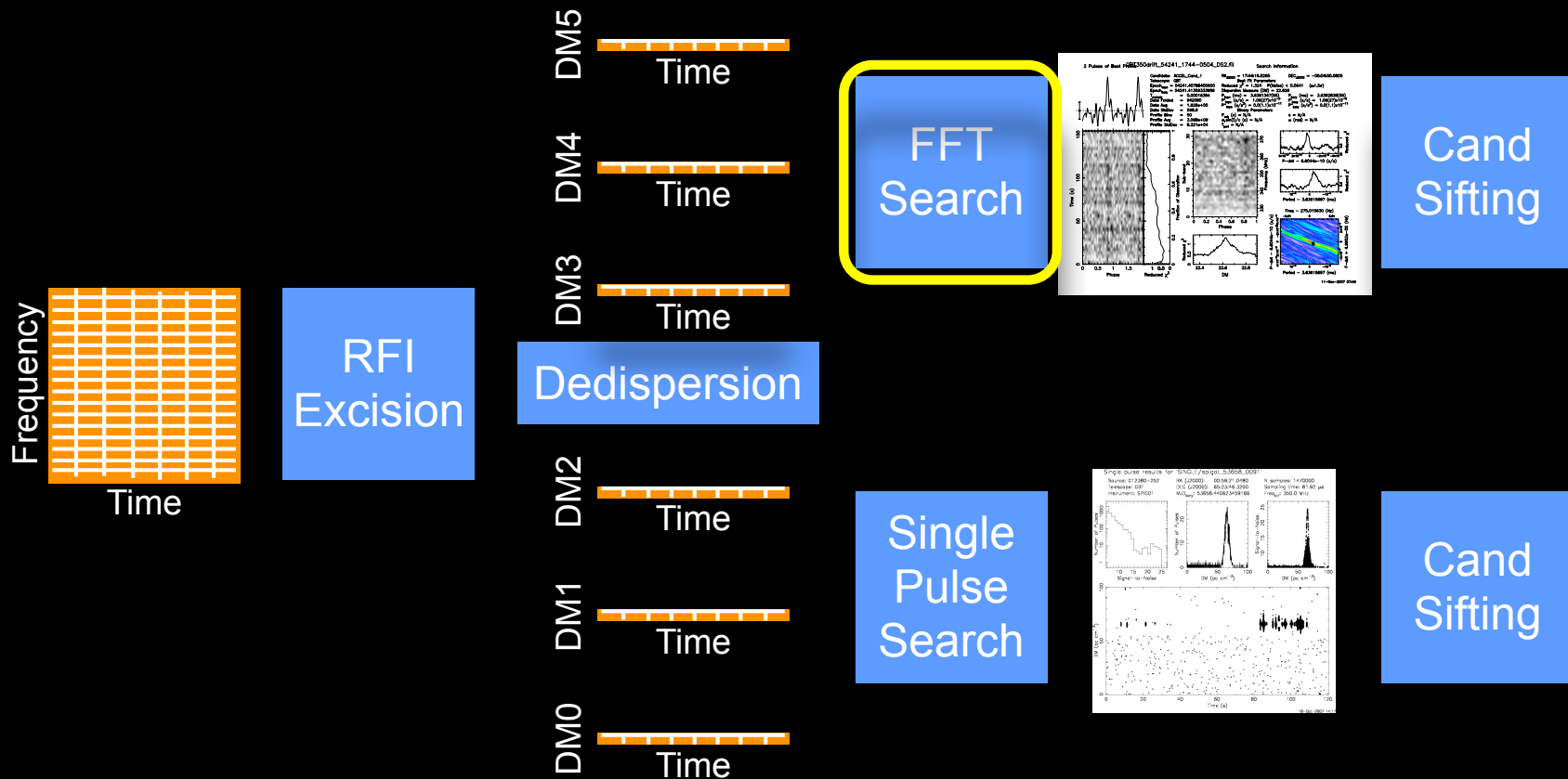


Fourier techniques



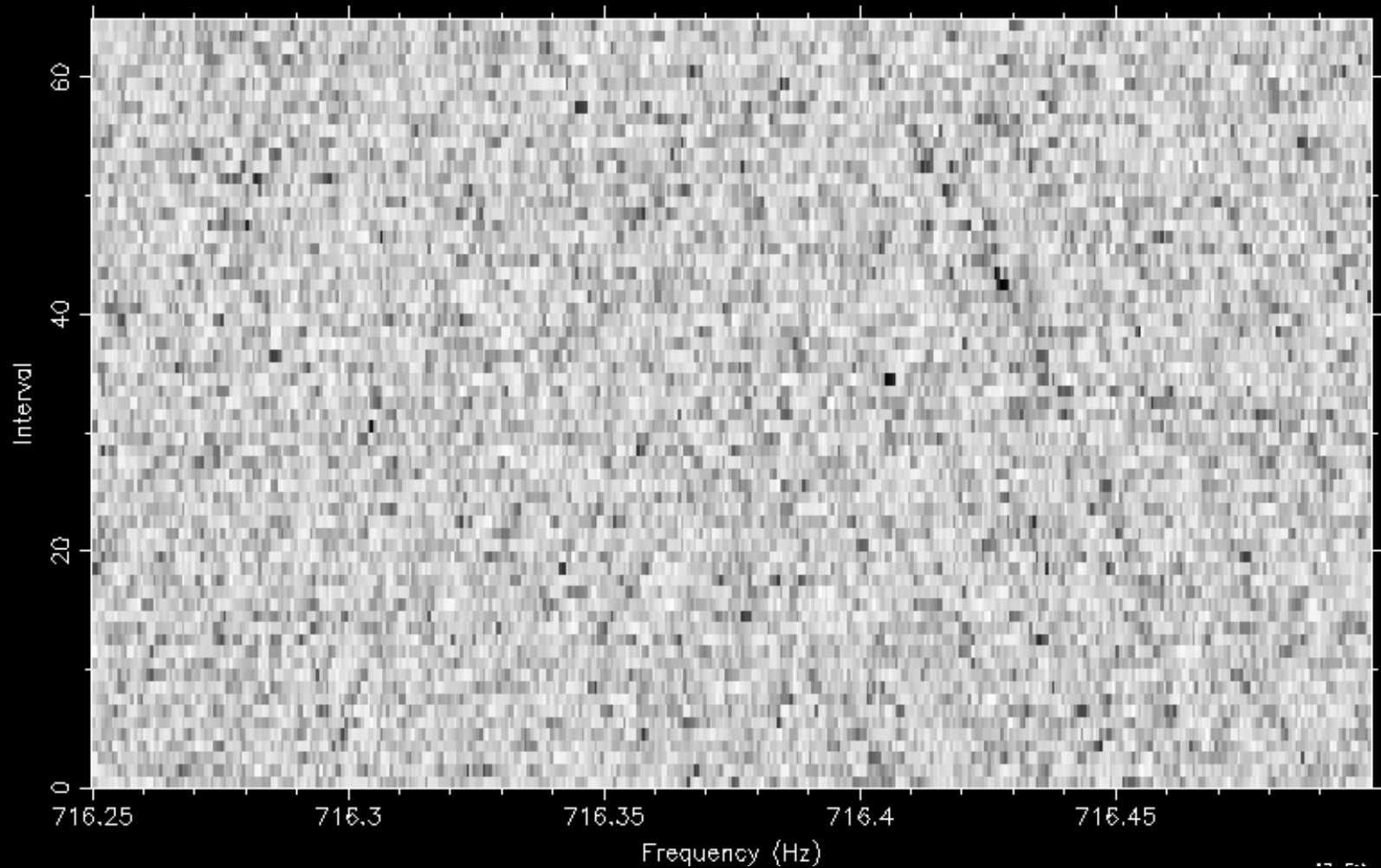
Time-series techniques

Standard Pulsar/Fast Transient Search

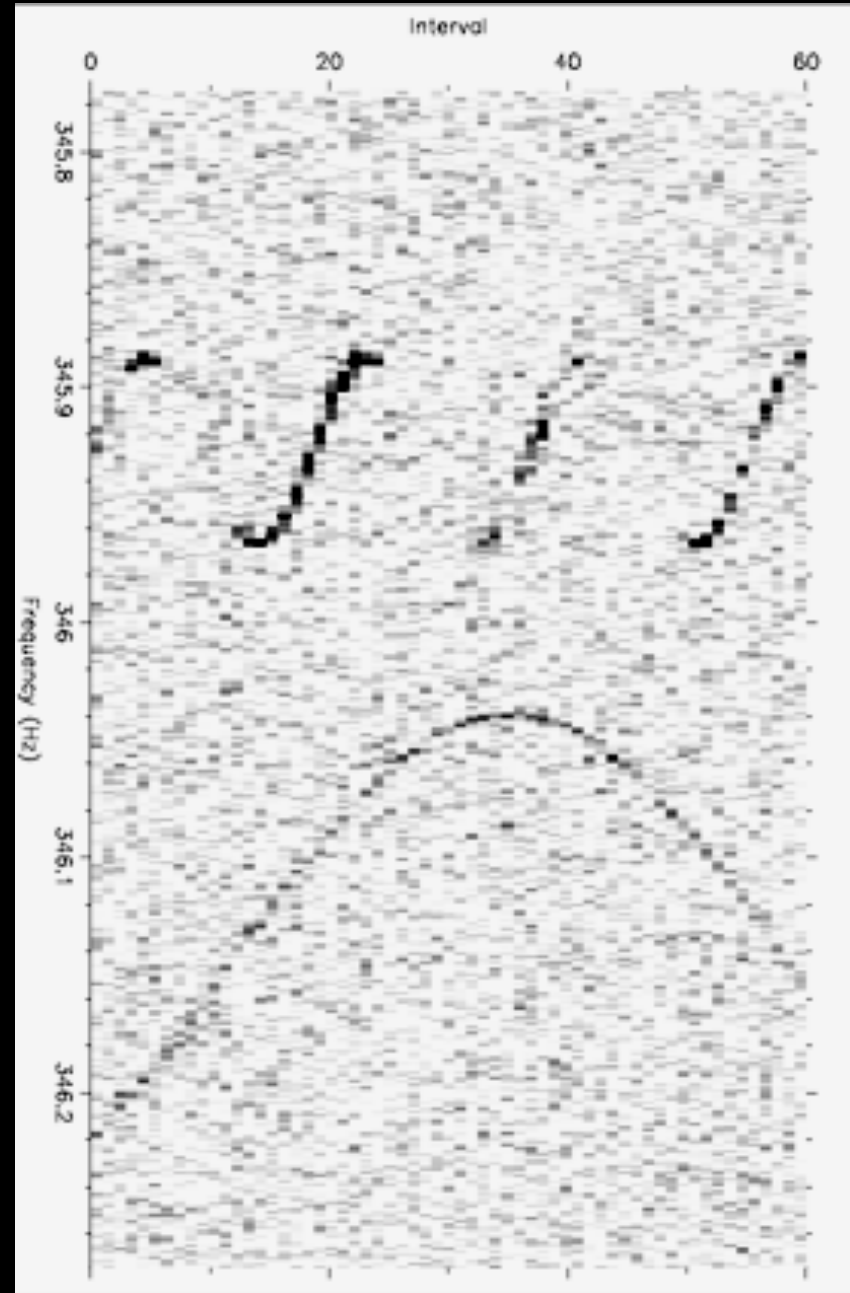
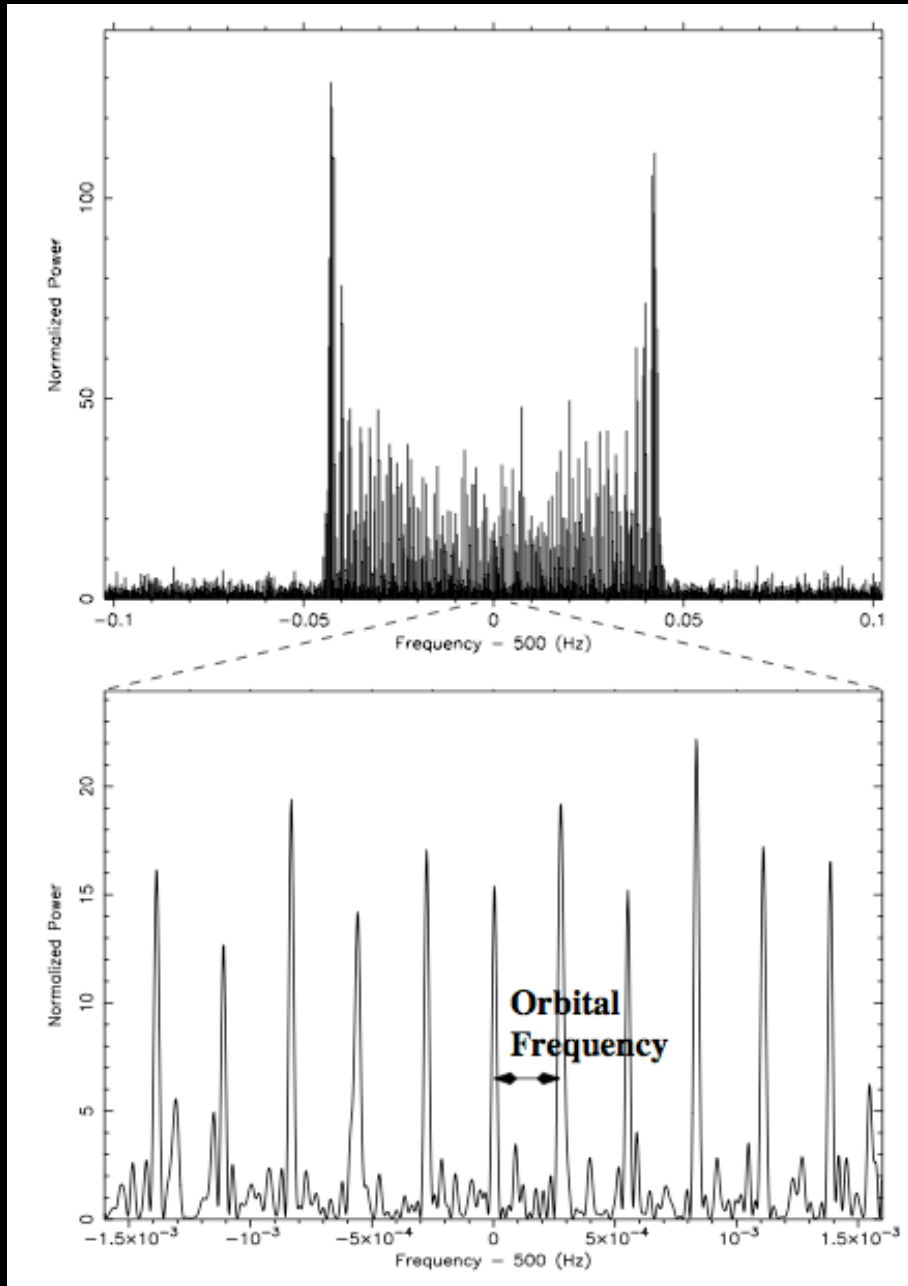


Detecting Binary Pulsars

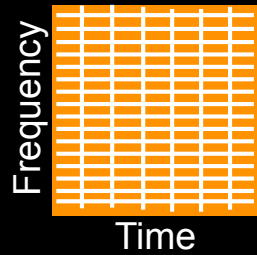
Dynamic Spectrum: SPIGOT_Ter5_080204_topo_DM235.60.dat



Detecting Binary Pulsars



Standard Pulsar/Fast Transient Search

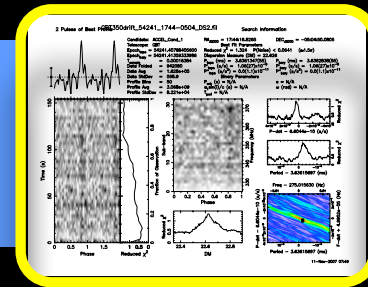


RFI
Excision



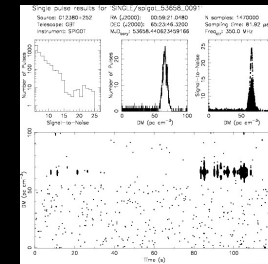
Dedispersion

FFT
Search



Cand
Sifting

Single
Pulse
Search

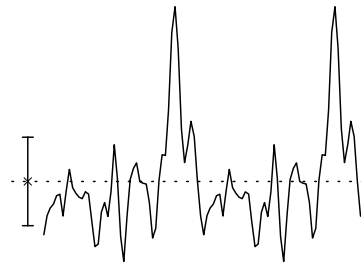


Cand
Sifting

FFT (acceleration) searches

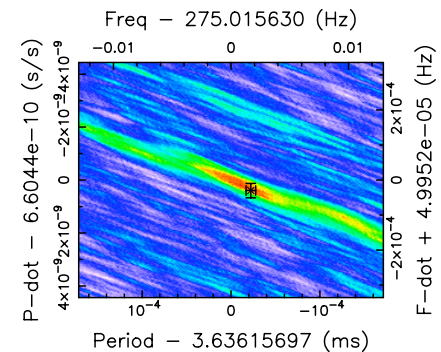
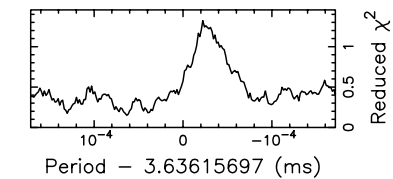
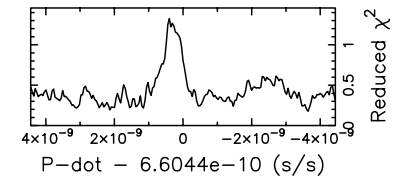
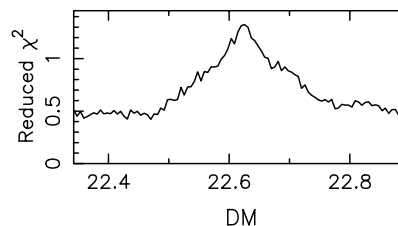
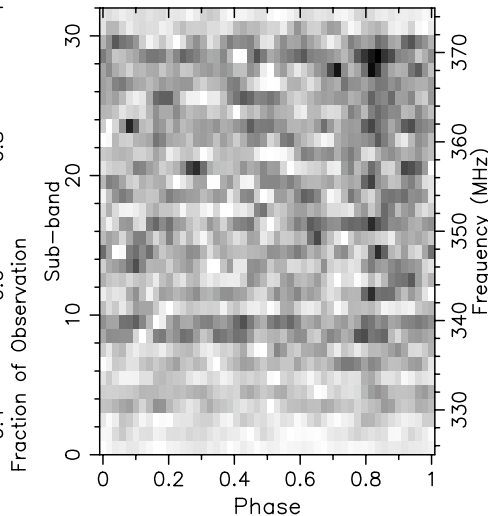
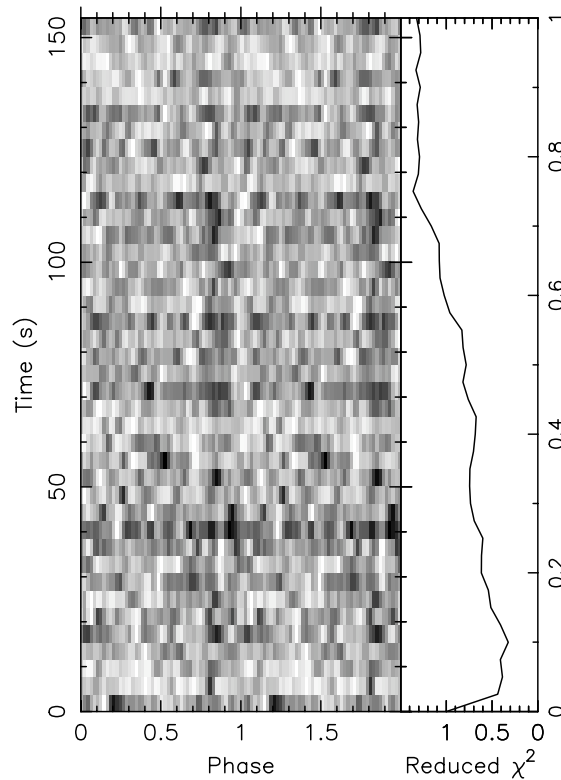
2 Pulses of Best Profile GBT350drift_54241_1744-0504_DS2.fil

Search Information

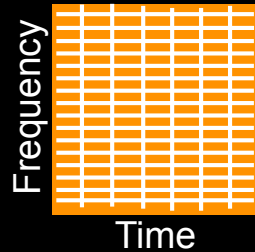


Candidate: ACCEL_Cand_1
 Telescope: GBT
 Epoch_{topo} = 54241.40788405600
 Epoch_{bary} = 54241.41359333986
 T_{sample} = 0.00016384
 Data Folded = 942080
 Data Avg = 1.628e+05
 Data StdDev = 598.9
 Profile Bins = 50
 Profile Avg = 3.068e+09
 Profile StdDev = 8.221e+04

RA_{J2000} = 17:44:16.8265
 DEC_{J2000} = -05:04:50.0805
 Best Fit Parameters
 Reduced χ^2 = 1.324 P(Noise) < 0.0641 ($\approx 1.5\sigma$)
 Dispersion Measure (DM) = 22.626
 P_{topo} (ms) = 3.6361347(55)
 P_{topo} (s/s) = 1.06(27) $\times 10^{-9}$
 P_{topo} (s/s²) = 0.0(1.1) $\times 10^{-11}$
 P_{bary} (ms) = 3.6362838(55)
 P_{bary} (s/s) = 1.06(27) $\times 10^{-9}$
 P_{bary} (s/s²) = 0.0(1.1) $\times 10^{-11}$
 Binary Parameters
 P_{orb} (s) = N/A
 a₁ sin(i)/c (s) = N/A
 T_{peri} = N/A
 e = N/A
 ω (rad) = N/A



Standard Pulsar/Fast Transient Search

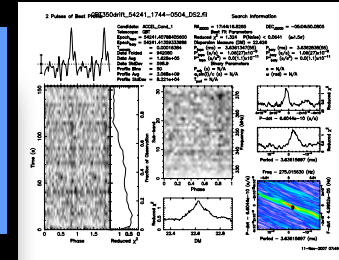


RFI
Excision



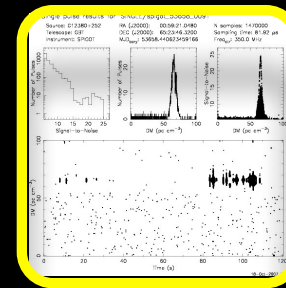
Dedispersion

FFT
Search



Cand
Sifting

Single
Pulse
Search



Cand
Sifting

Single pulse searches

