

#17 DSES Pulsar Observation Report: B2111+46

Date & Time (UTC): 20220227_192719

Run time: 2600 seconds (45 min)

Observers: Dan Layne, Ray Uberecken

Telescope: Deep Space Exploration Society (DSES) 60 ft. dish (18.3 m). Haswell, CO

Feed horn: 1296 Mhz, Single Polarization, Beamwidth = 0.88°

Receiver: USRP B210, Bandwidth = 30 Mhz. Frequency = 1296 Mhz, RF Gain = 64

Computer: System76, 16 core, Ubuntu 20.04

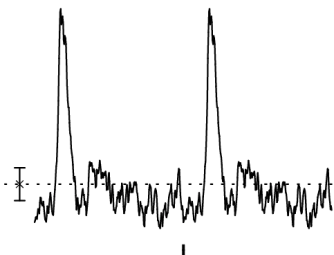
Software: Murmur (planning), GnuRadio (collection), PRESTO (folding and detection)

Source name: B2111+46 (J2113+4644)

Flux density: S1400 = 19 mJy

Source RA, DEC (J2000): 21^h 13^m 24.3^s ; 46° 44' 08.8''

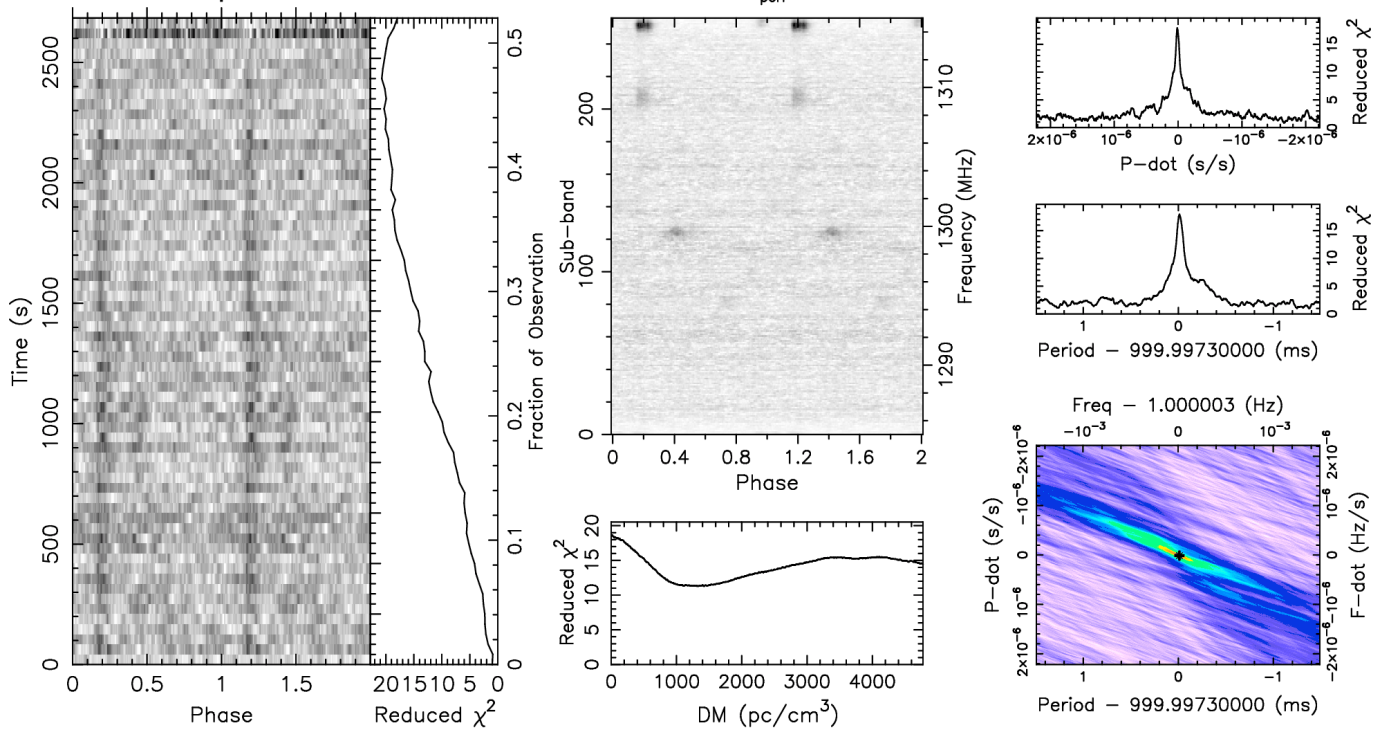
2 Pulses of Best Profile



Candidate: 1000.00ms_Cand
 Telescope: DSES 60 ft dish
 Epoch_{topo} = 59637.81063724220
 Epoch_{bary} = N/A
 T_{sample} = 0.0087381
 Data Folded = 307200
 Data Avg = 3.546e+07
 Data StdDev = 5.637e+04
 Profile Bins = 256
 Profile Avg = 4.254e+10
 Profile StdDev = 1.953e+06

Search Information

RA_{J2000} = 21:13:24.3000 DEC_{J2000} = 46:44:08.8000
 Best Fit Parameters
 DOF_{eff} = 97.42 χ^2_{red} = 17.951 P(Noise) < 1.03e-300 (37.0 σ)
 Dispersion Measure (DM; pc/cm³) = 139.905
 P_{topo} (ms) = 999.9857(54) P_{bary} (ms) = N/A
 P_{topo}¹ (s/s) = 1.3(1.6)x10⁻⁸ P_{bary}¹ (s/s) = N/A
 P_{topo}¹¹ (s/s²) = 0.0(3.7)x10⁻¹¹ P_{bary}¹¹ (s/s²) = N/A
 Binary Parameters
 P_{orb} (s) = N/A e = N/A
 a₁sin(i)/c (s) = N/A ω (rad) = N/A
 T_{peri} = N/A



B2111+46_20220227_192719.fil

dan 10-Mar-2022 13:05