

Table S1. Mode frequencies for 16 Cyg A with 68% credible regions

n	ℓ	frequency μ Hz	68% credible region μ Hz
12	2	1488.24	0.51
13	0	1495.00	0.07
13	1	1541.92	0.07
13	2	1591.29	0.19
14	0	1598.69	0.07
14	1	1645.06	0.09
14	2	1694.17	0.17
15	0	1700.91	0.08
15	1	1747.15	0.08
15	2	1795.75	0.11
16	0	1802.31	0.07
15	3	1838.52	0.67
16	1	1848.98	0.05
16	2	1898.26	0.10
17	0	1904.61	0.06
16	3	1941.22	0.56
17	1	1952.00	0.05
17	2	2001.67	0.08
18	0	2007.58	0.05
17	3	2045.98	0.37
18	1	2055.52	0.05
18	2	2105.31	0.06
19	0	2110.91	0.04
18	3	2149.94	0.13
19	1	2159.15	0.04
19	2	2208.90	0.06
20	0	2214.22	0.05
19	3	2253.53	0.16
20	1	2262.54	0.05
20	2	2312.54	0.09
21	0	2317.32	0.05
20	3	2357.39	0.19
21	1	2366.25	0.06
21	2	2416.25	0.13
22	0	2420.90	0.08
21	3	2462.08	0.38
22	1	2470.30	0.08
22	2	2520.46	0.21
23	0	2525.07	0.16
22	3	2566.97	0.61
23	1	2574.78	0.13
23	2	2624.32	0.32
24	0	2629.20	0.18
23	3	2669.76	1.04
24	1	2679.87	0.19
24	2	2730.23	0.89
25	0	2733.61	0.46
25	1	2784.22	0.35
25	2	2835.34	1.15
26	0	2838.40	0.78
26	1	2891.27	0.74
26	2	2941.48	1.54
27	0	2945.32	1.18
27	1	2996.38	1.19

Table S2. Mode frequencies for 16 Cyg B with 68% credible regions

n	ℓ	frequency μ Hz	68% credible region μ Hz
12	2	1686.42	0.31
13	0	1695.07	0.09
13	1	1749.21	0.1
13	2	1804.17	0.27
14	0	1812.43	0.1
14	1	1866.52	0.12
14	2	1921.21	0.16
15	0	1928.90	0.07
14	3	1970.96	5.14
15	1	1982.59	0.07
15	2	2036.67	0.14
16	0	2044.28	0.06
15	3	2085.37	1.5
16	1	2098.08	0.06
16	2	2152.42	0.1
17	0	2159.58	0.06
16	3	2200.58	1.22
17	1	2214.17	0.06
17	2	2268.96	0.08
18	0	2275.95	0.05
17	3	2319.12	0.37
18	1	2331.14	0.04
18	2	2386.26	0.06
19	0	2392.71	0.04
18	3	2436.66	0.3
19	1	2448.25	0.04
19	2	2503.50	0.06
20	0	2509.67	0.04
19	3	2554.15	0.15
20	1	2565.40	0.04
20	2	2620.56	0.07
21	0	2626.40	0.04
20	3	2671.72	0.17
21	1	2682.40	0.05
21	2	2737.74	0.08
22	0	2743.33	0.06
21	3	2789.15	0.28
22	1	2799.73	0.06
22	2	2855.63	0.12
23	0	2860.72	0.1
22	3	2906.87	0.44
23	1	2917.79	0.1
23	2	2973.56	0.24
24	0	2978.50	0.15
23	3	3025.06	1.13
24	1	3036.06	0.15
24	2	3093.04	0.51
25	0	3096.85	0.42
24	3	3144.04	1.42
25	1	3154.31	0.29
25	2	3213.40	1.54
26	0	3214.93	1.04
26	1	3273.17	0.64
26	2	3333.06	2.74
27	0	3334.22	1.9
27	1	3393.45	0.77