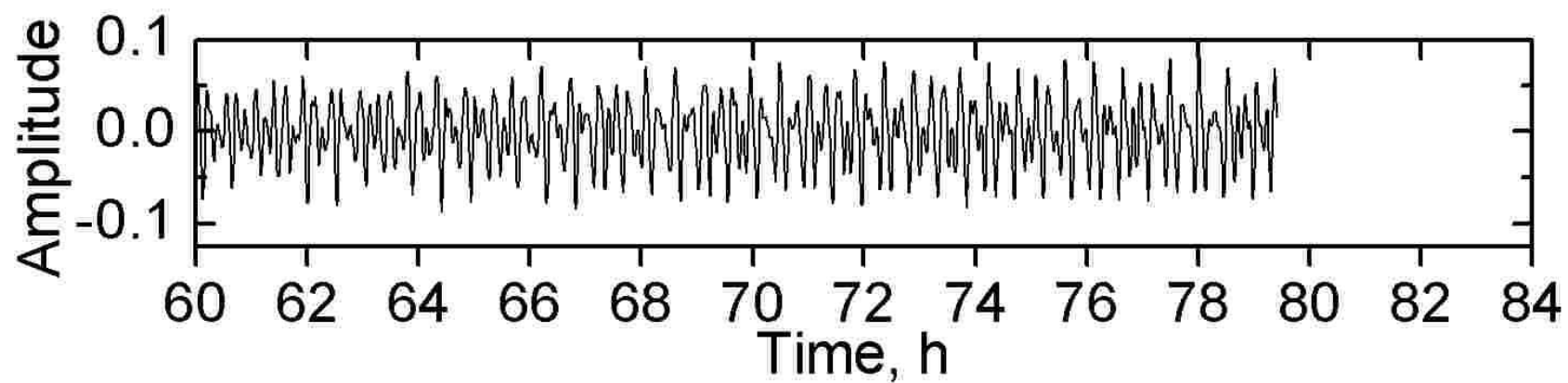
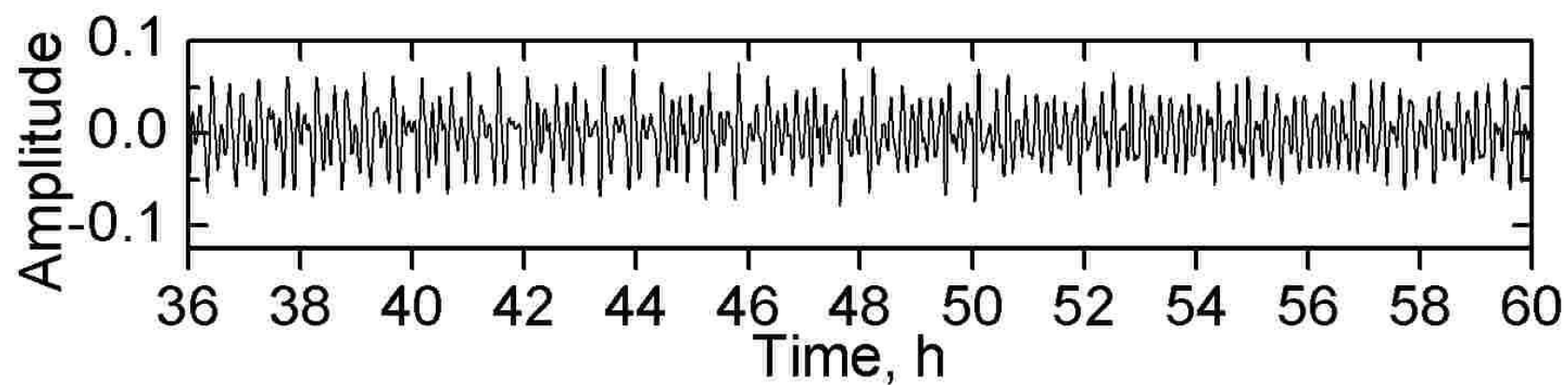
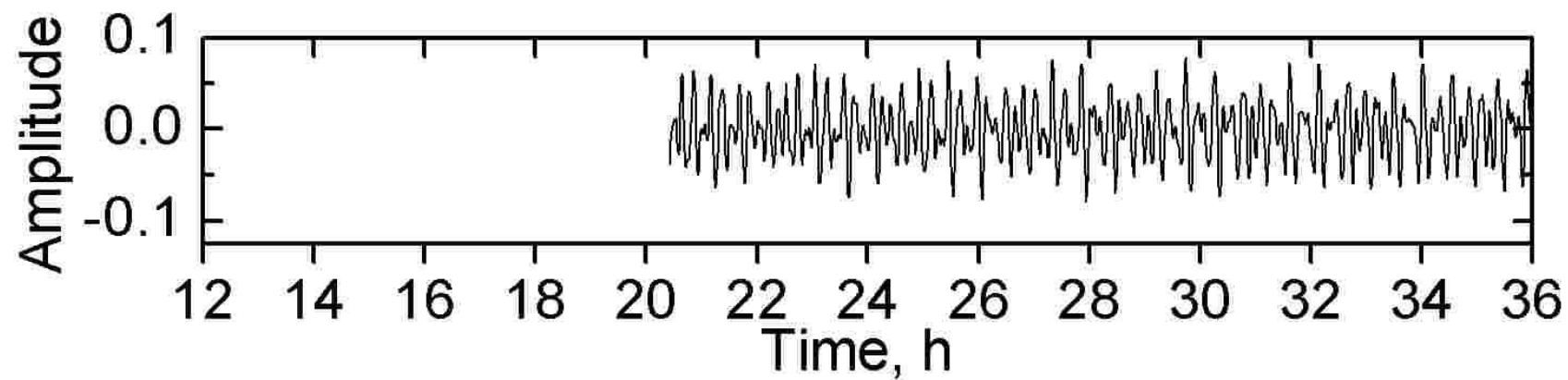
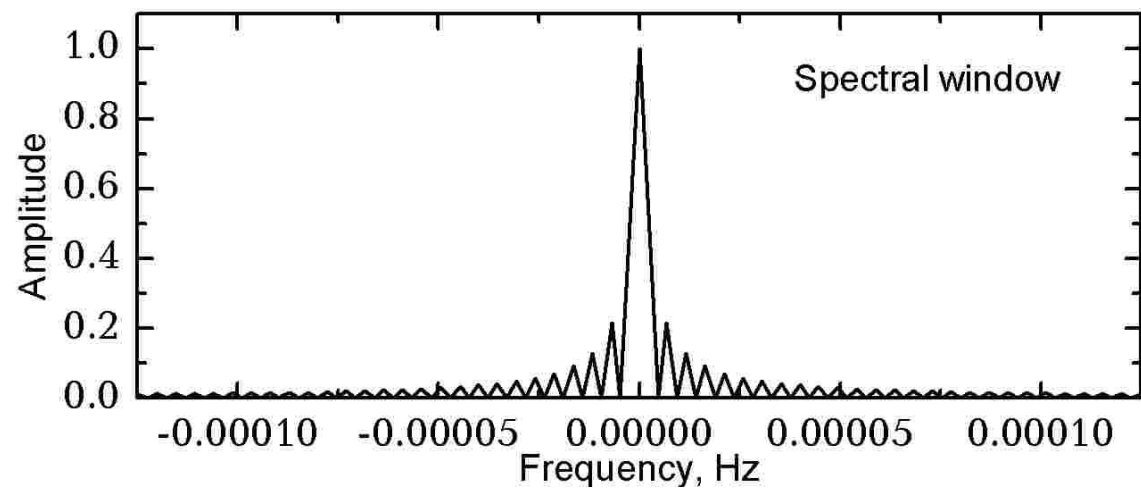
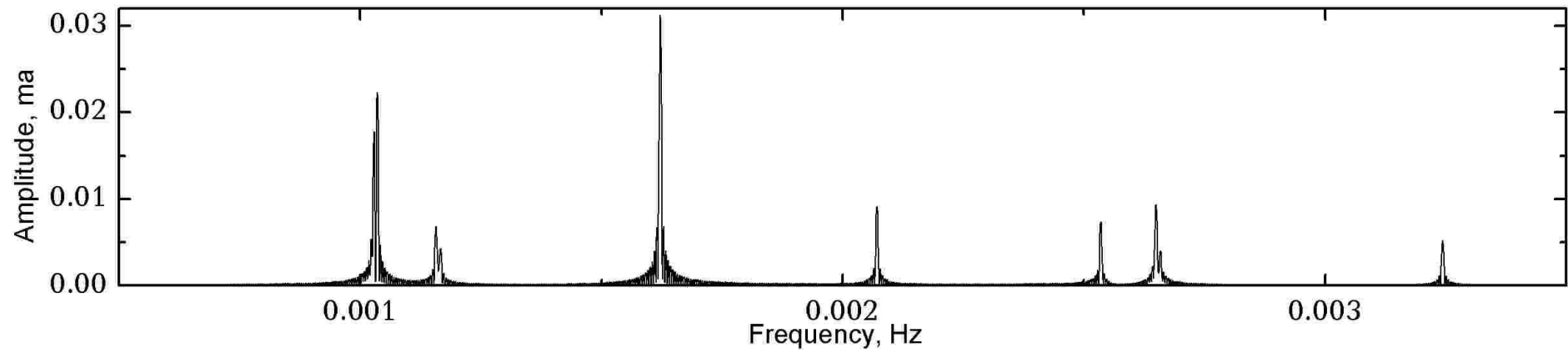
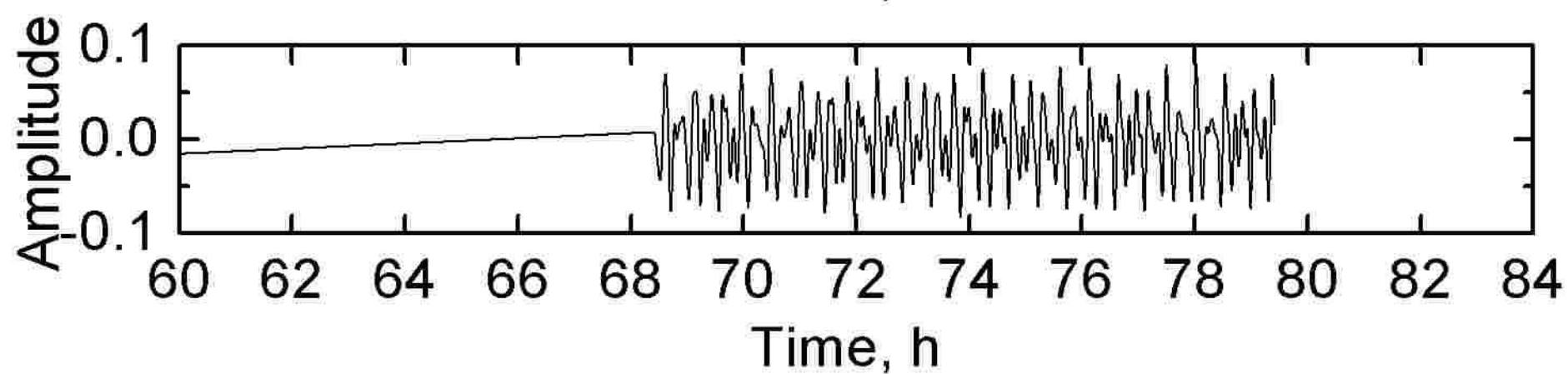
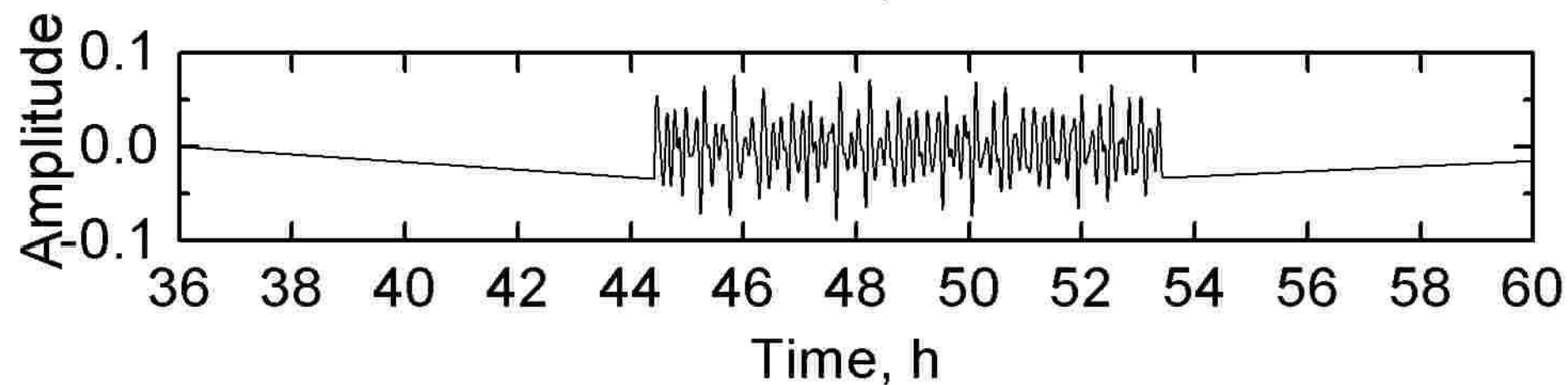
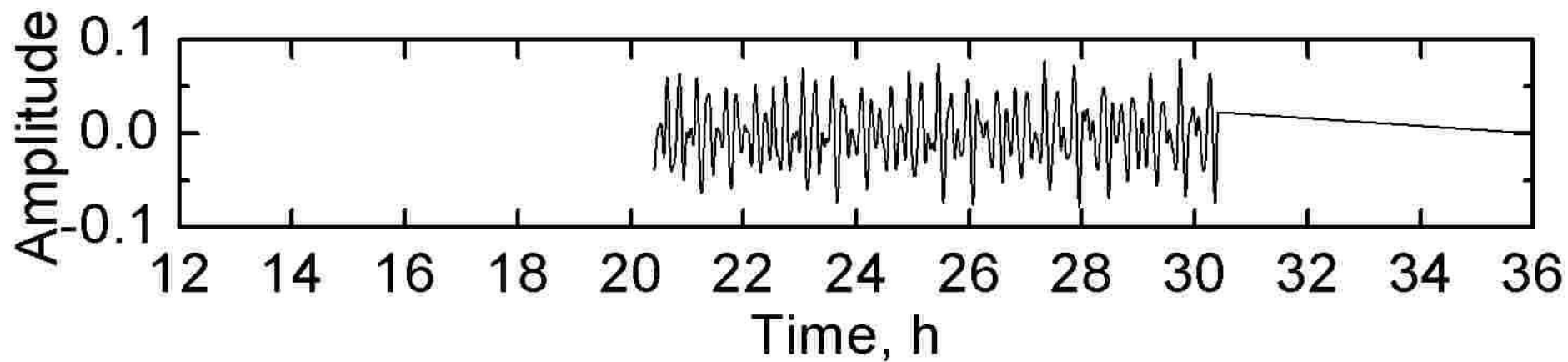


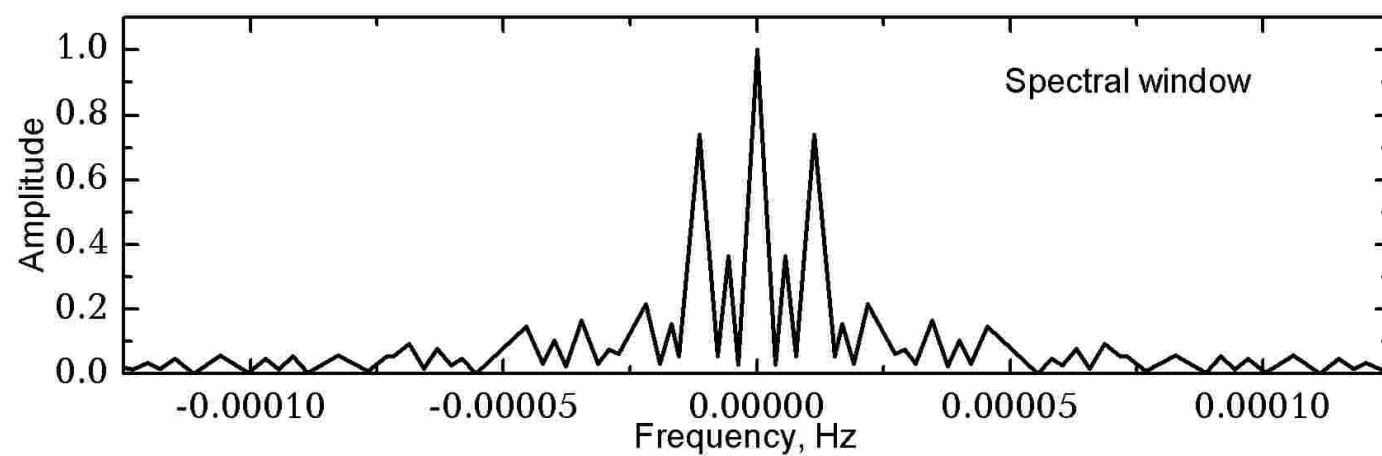
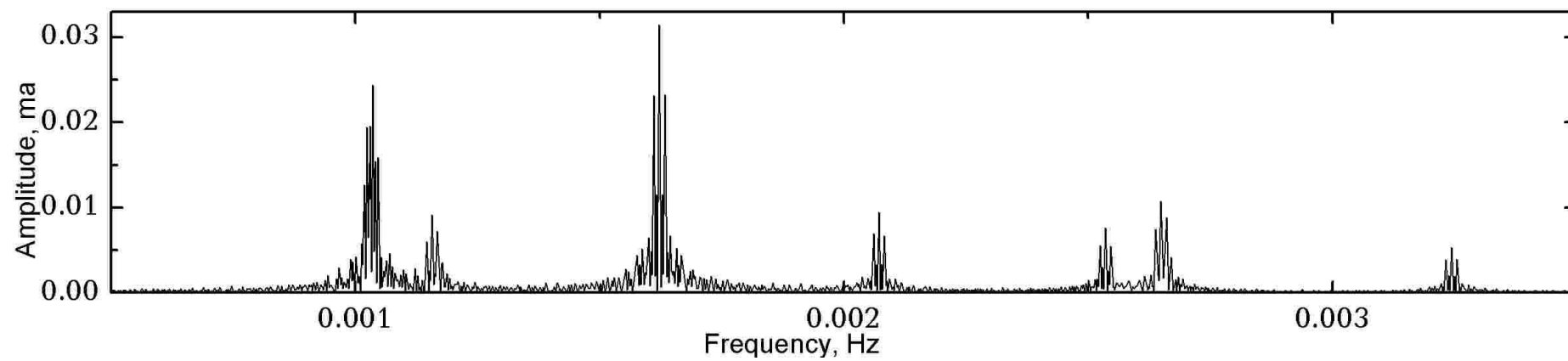
Data used to calculate synthetic light curve

	Frequency	Amplitude	Phase
F1	0.0010266301	0.01114082	0.89579
F2	0.0010273817	0.01476469	0.49031
F3	0.0010283870	0.01221335	0.25797
F4	0.0010358170	0.01912219	0.87051
F5	0.0011576700	0.00739196	0.95332
F6	0.0011657932	0.00486246	0.19975
F7	0.0016222927	0.03130058	0.05999
F8	0.0020715178	0.00902302	0.16150
F9	0.0025358221	0.00731064	0.25242
F10	0.0026499797	0.00797992	0.42015
F11	0.0026509081	0.00452670	0.28883
F12	0.0026581119	0.00453730	0.24275
F13	0.0032445705	0.00522914	0.46826

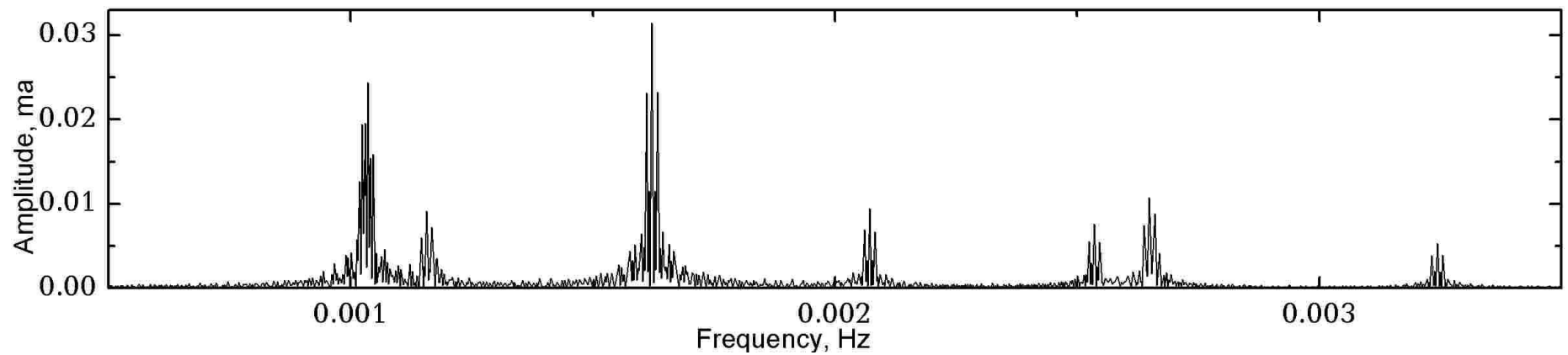
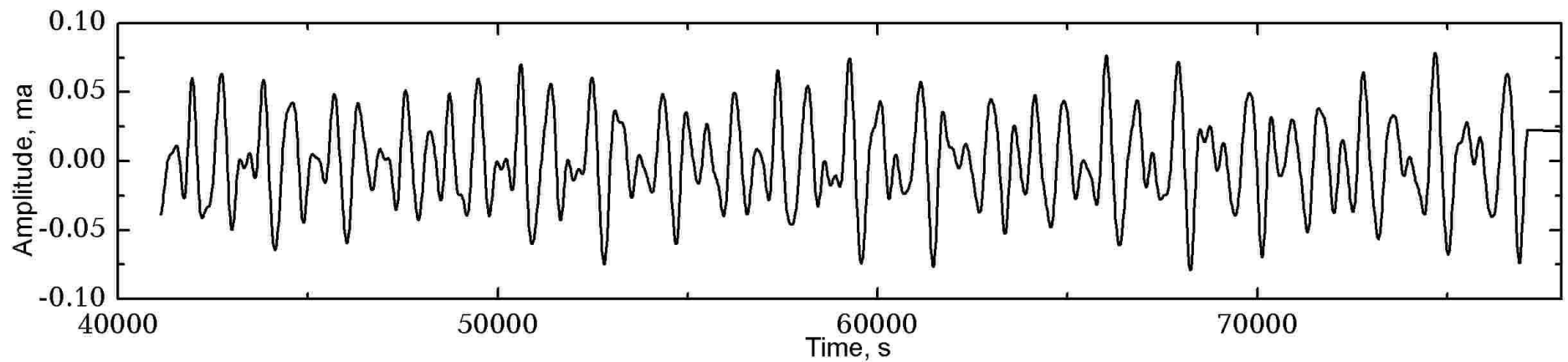




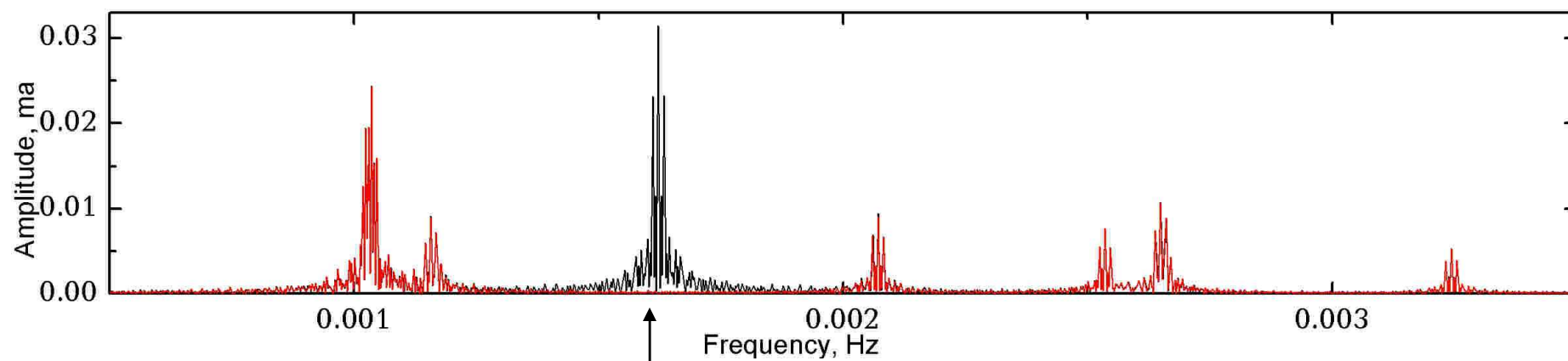
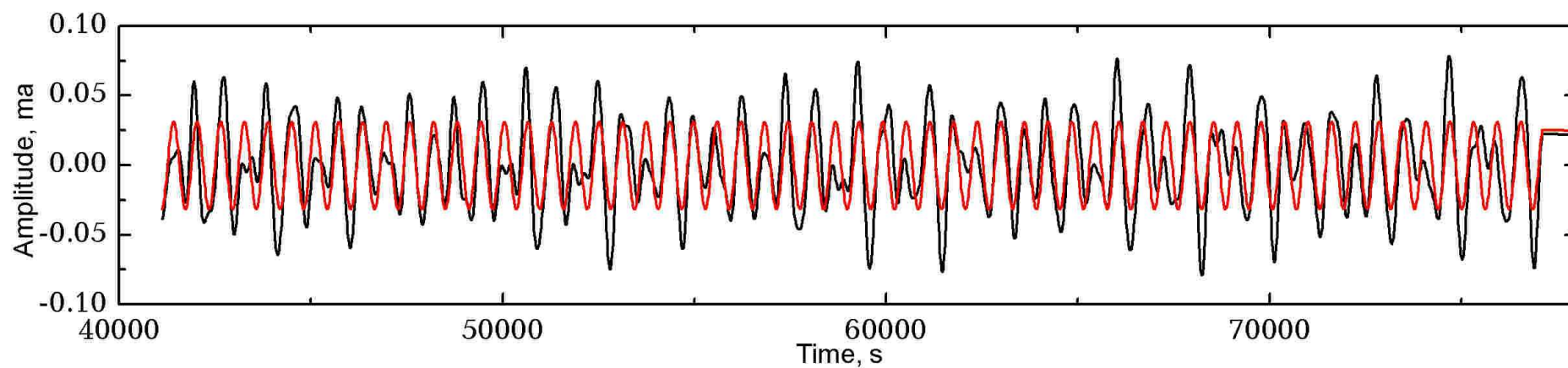




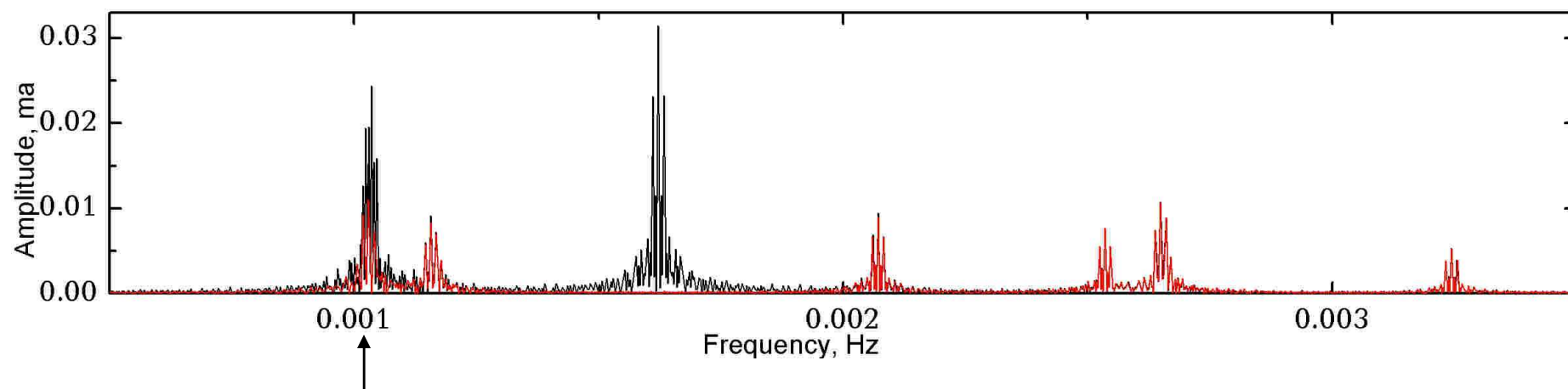
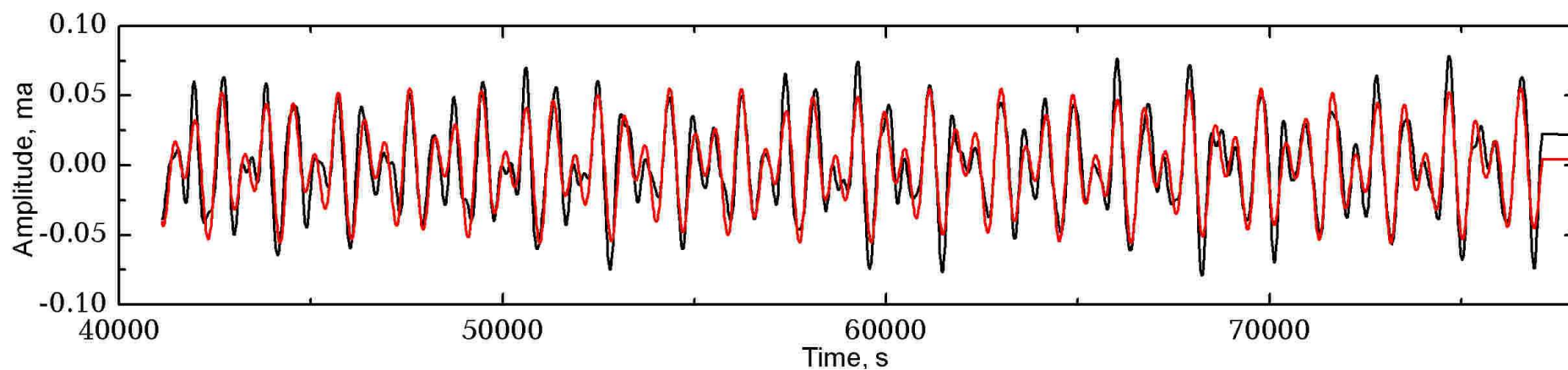
Prewhitening



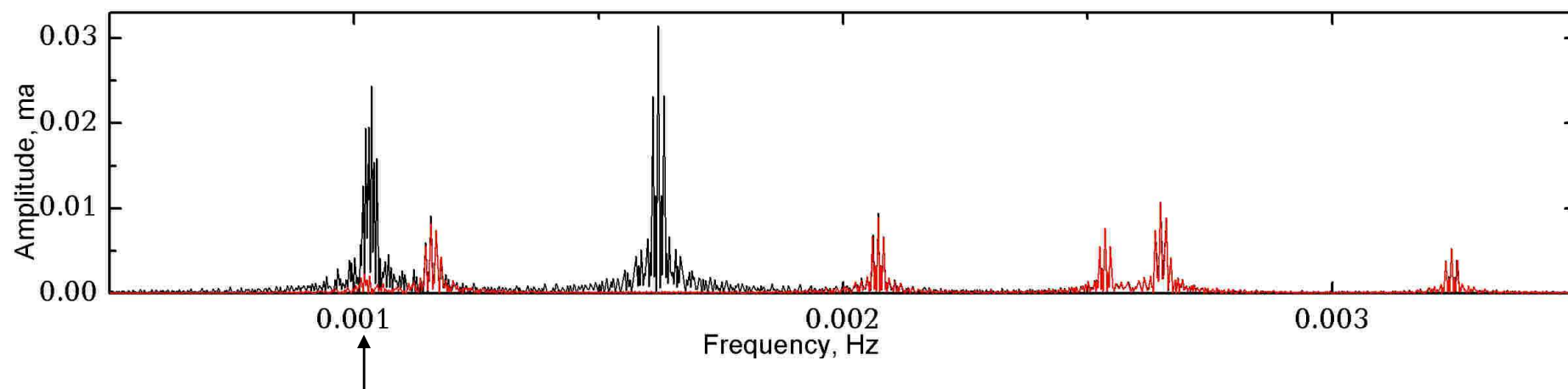
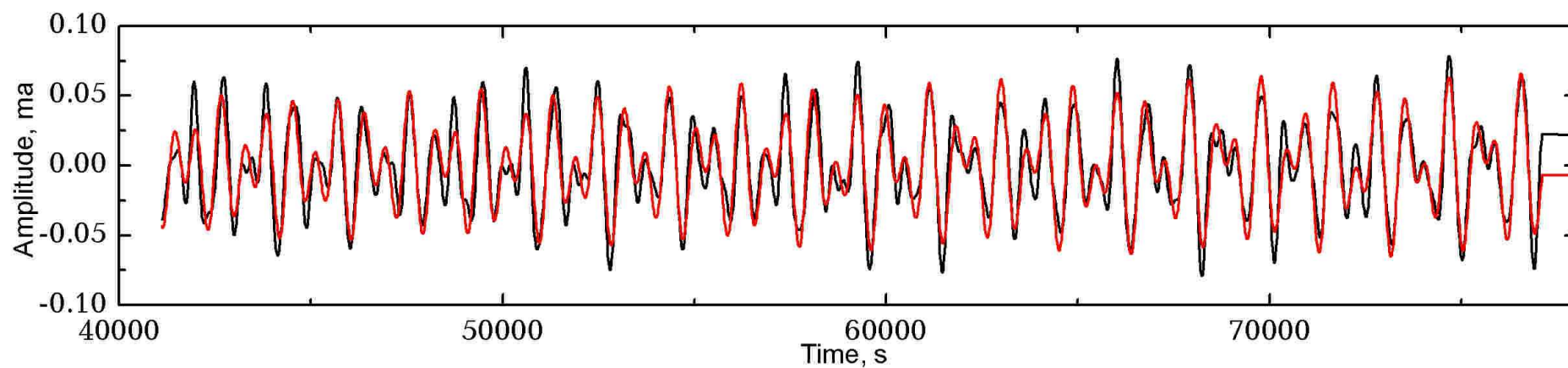
1. Synthetic light curve with 13 frequencies for one night.
2. Fourier transformation of such light curve, simulated for three runs with gaps between nights.



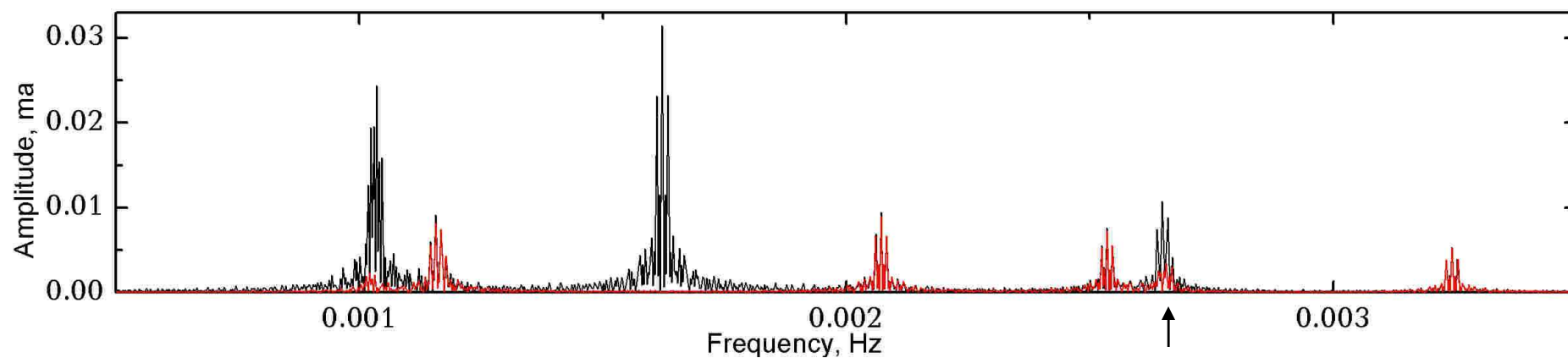
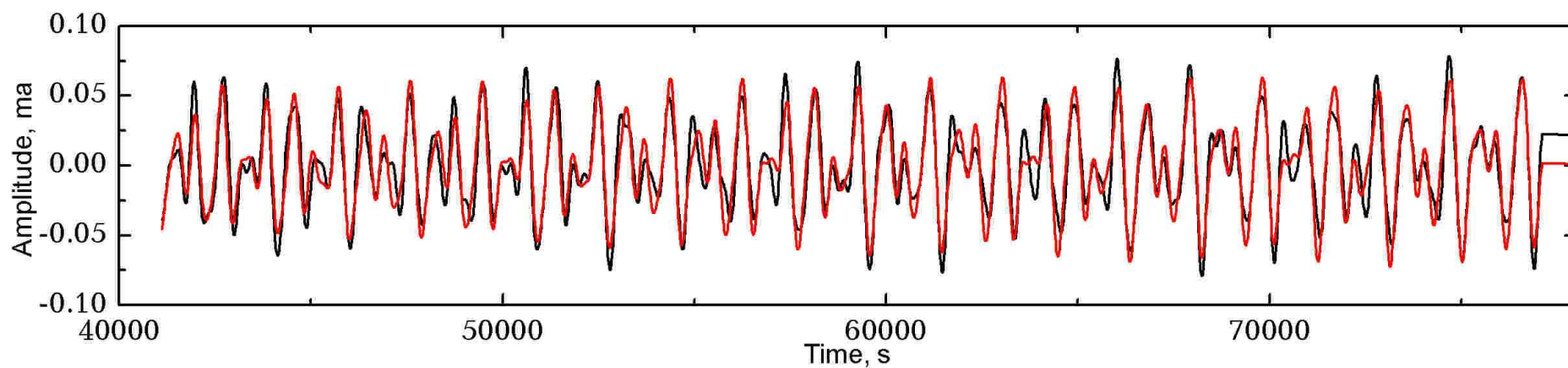
	Frequency	Amplitude	Phase
Initial data:	0.0016222927	0.03130058	0.05999
Results of prewhitening:	0.0016222938	0.03132446	0.06022



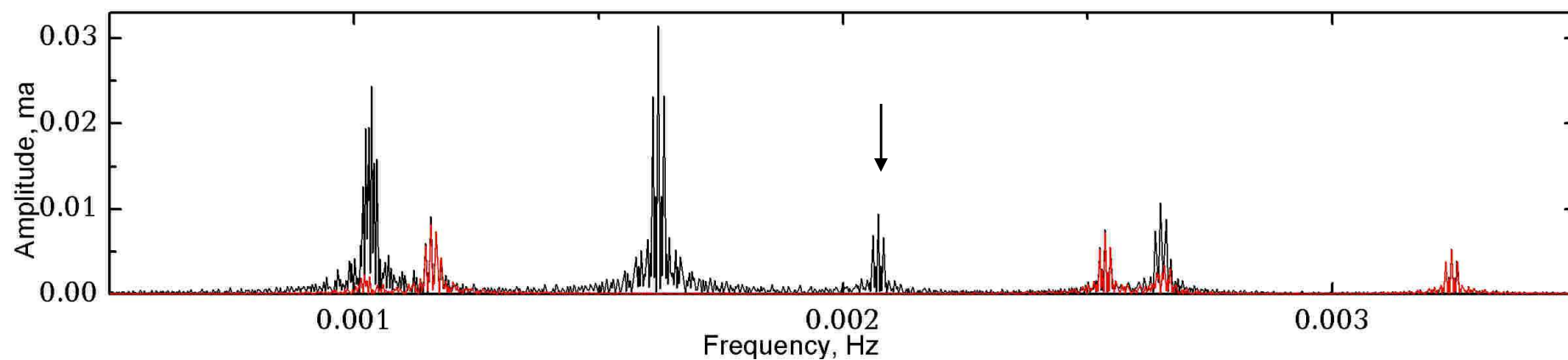
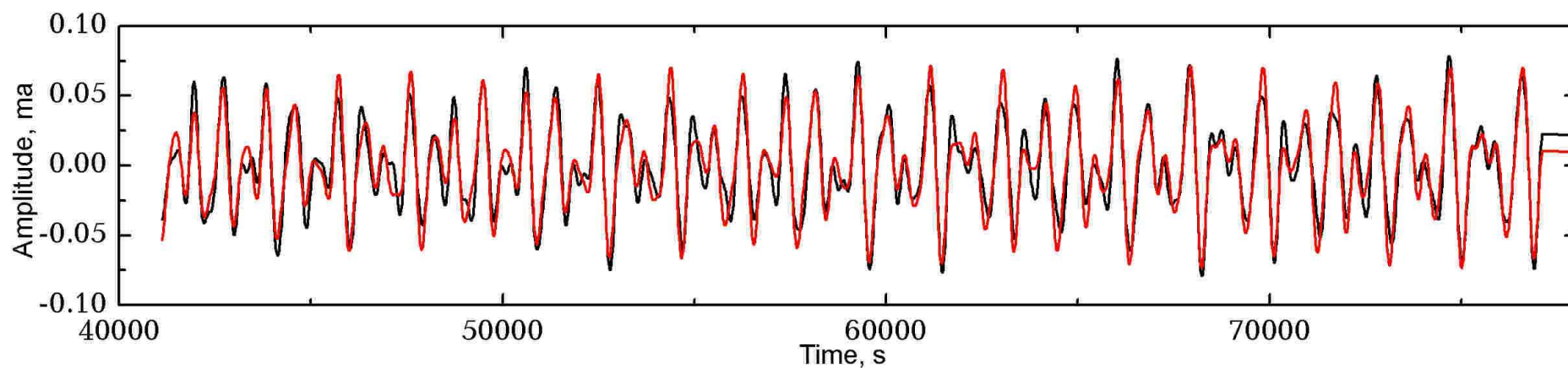
	Frequency	Amplitude	Phase
Initial data:	0.0010358170	0.01912219	0.87051
Results of prewhitening:	0.0010357288	0.02116218	0.92714



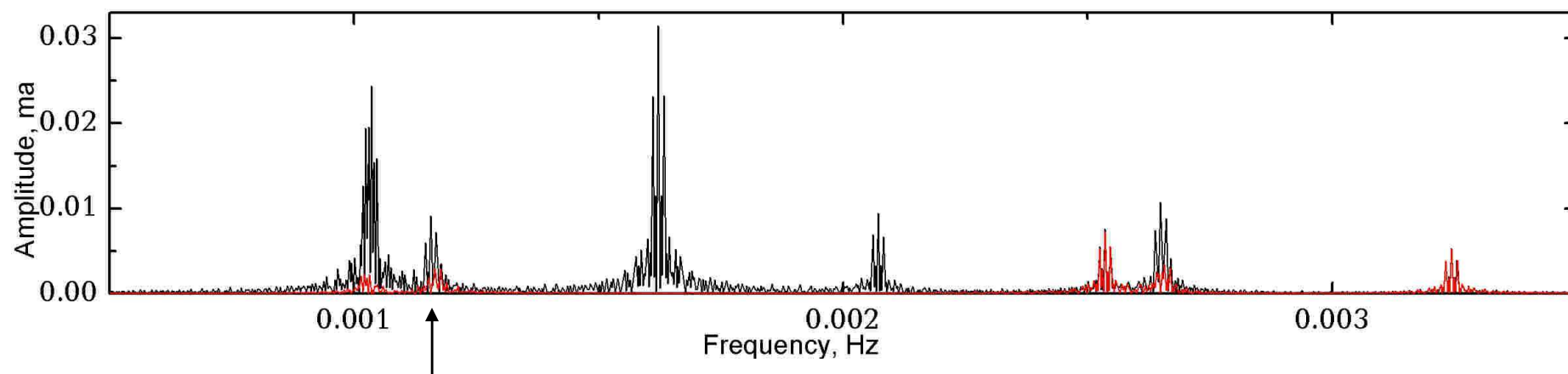
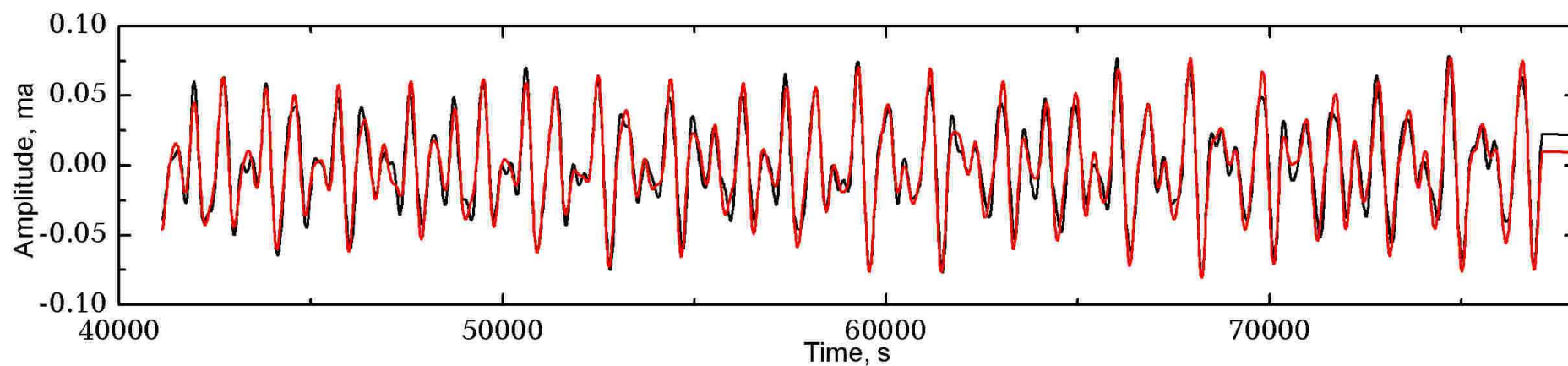
	Frequency	Amplitude	Phase
Initial data:	0.0010283870	0.01221335	0.25797
Results of prewhitening:	0.0010285793	0.01364001	0.55126



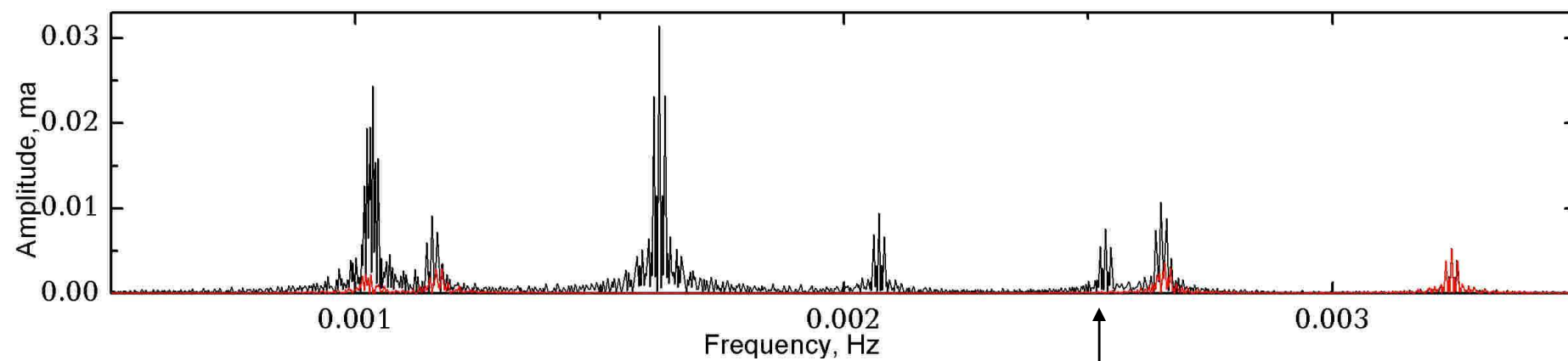
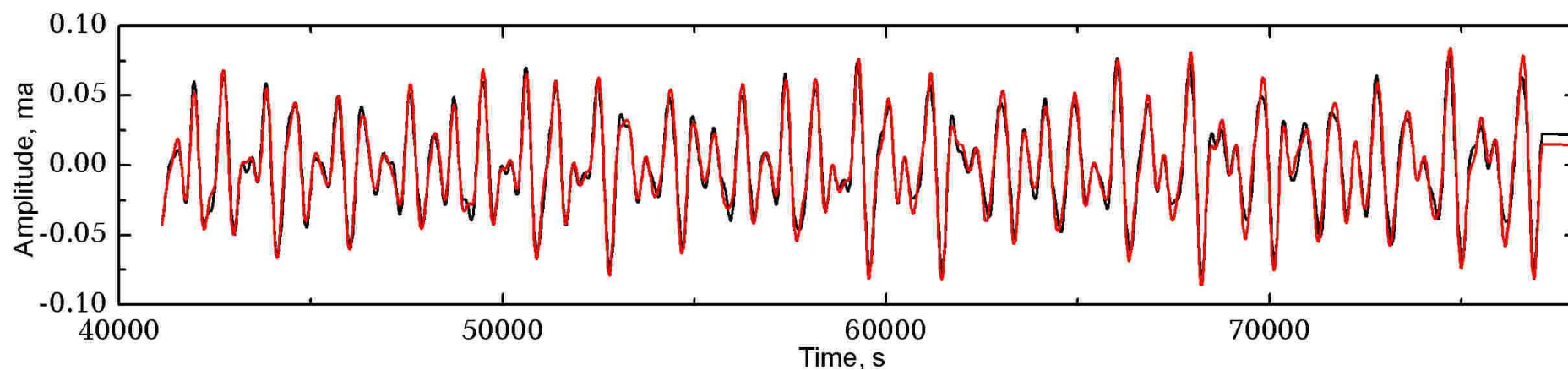
	Frequency	Amplitude	Phase
Initial data:	0.0026499797	0.00797992	0.42015
	0.0026509081	0.00452670	0.28883
Results of prewhitening:	0.0026502747	0.00954511	0.93457



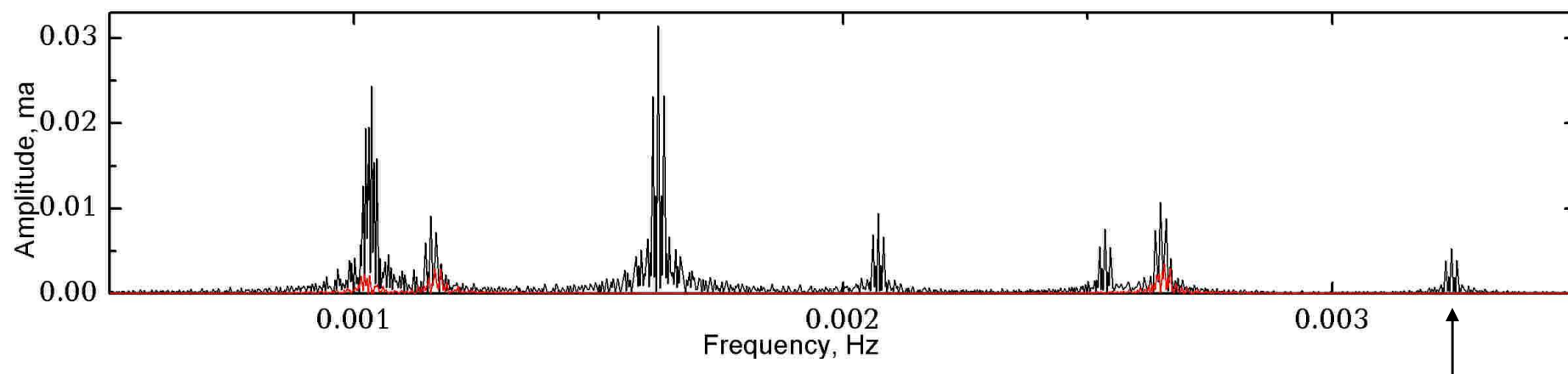
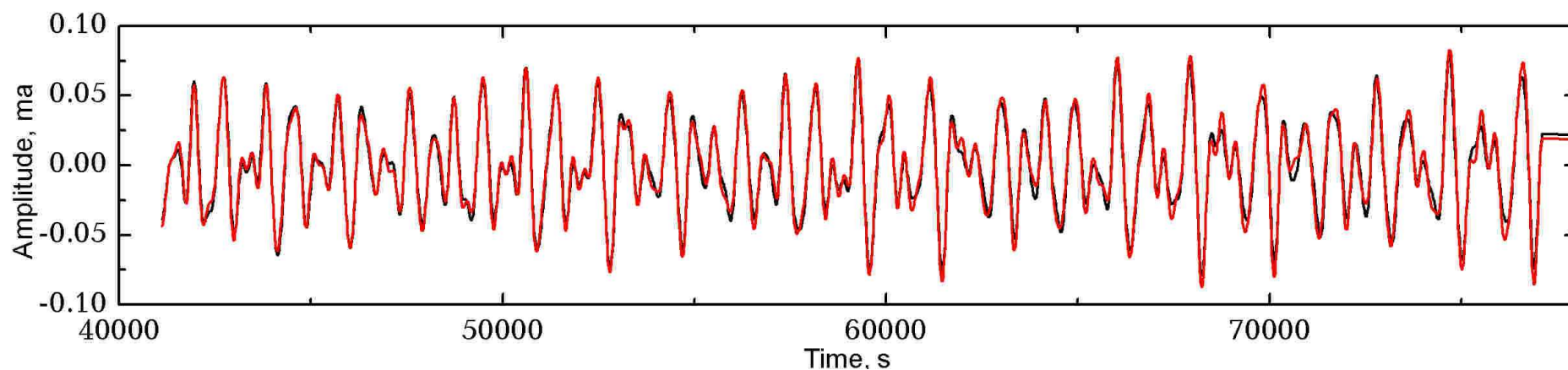
	Frequency	Amplitude	Phase
Initial data:	0.0020715178	0.00902302	0.16150
Results of prewhitening:	0.0020715116	0.00901540	0.51934



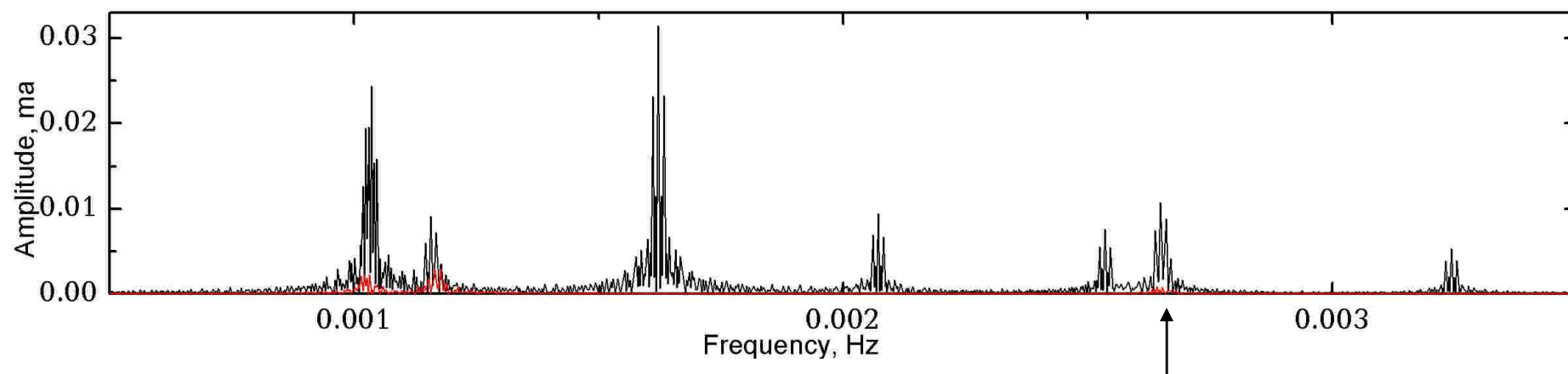
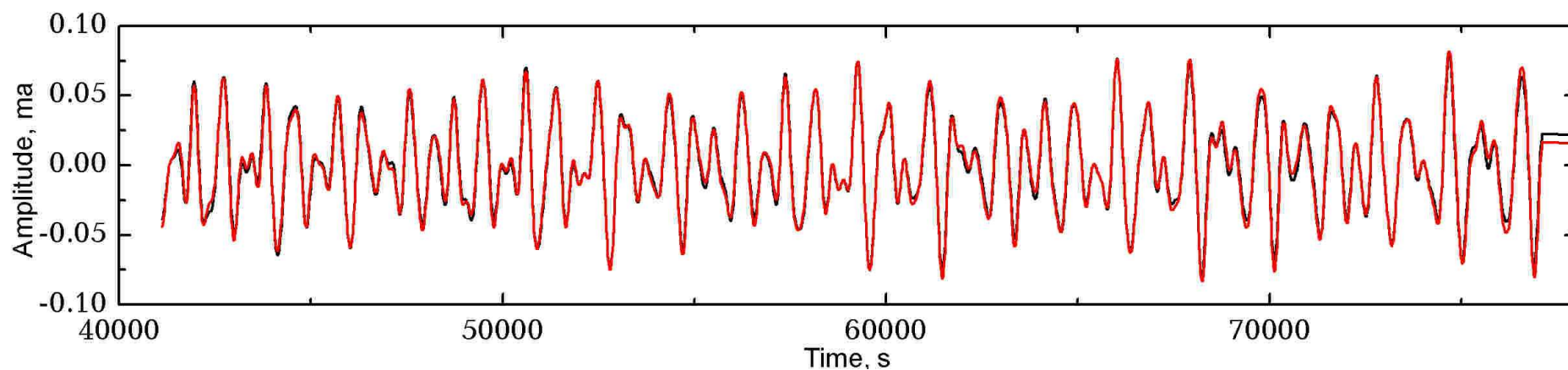
	Frequency	Amplitude	Phase
Initial data:	0.0011576700	0.00739196	0.95332
Results of prewhitening:	0.0011577075	0.00734622	0.66727



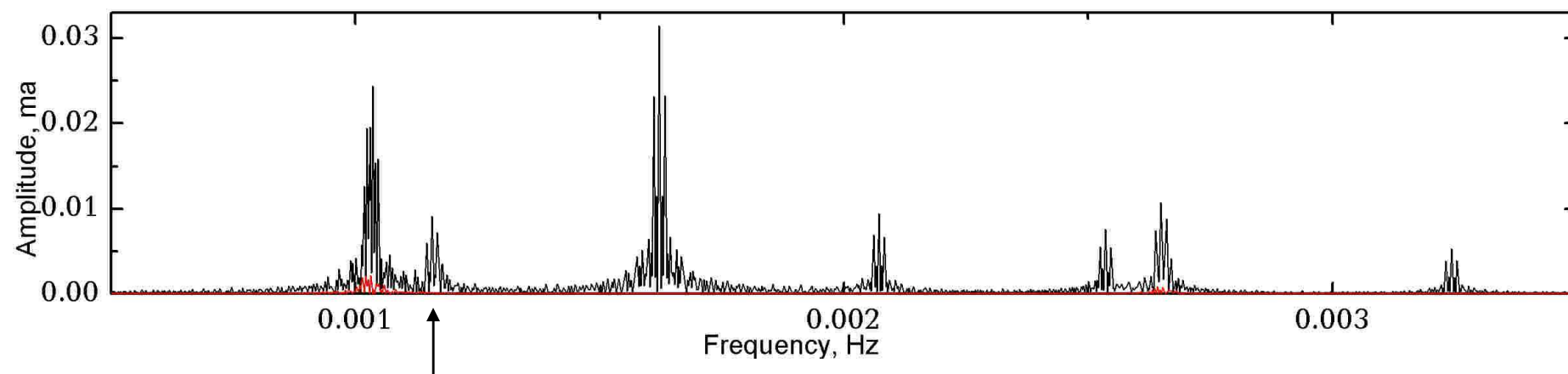
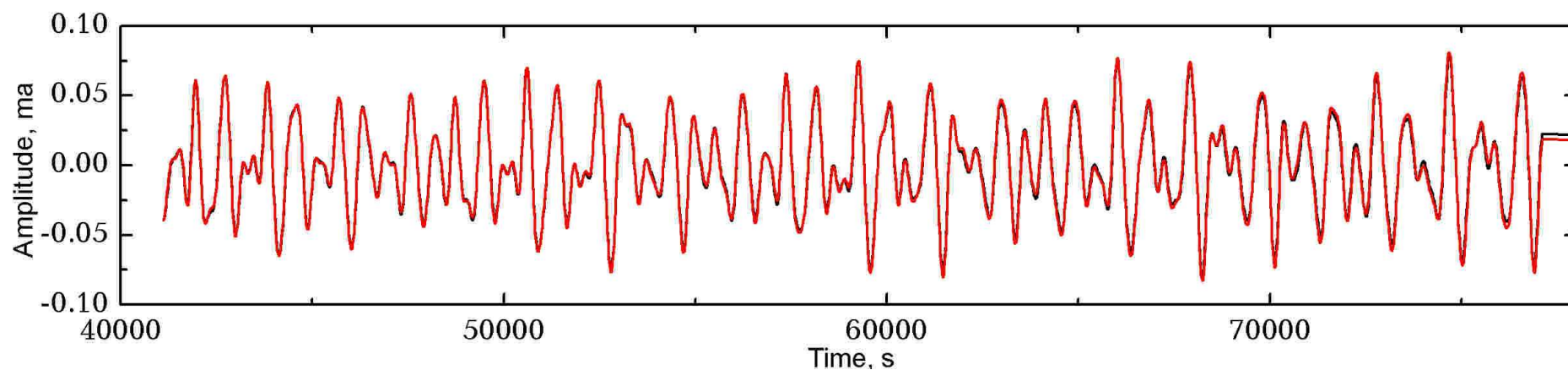
	Frequency	Amplitude	Phase
Initial data:	0.0025358221	0.00731064	0.25242
Results of prewhitening:	0.0025358154	0.00734202	0.83245



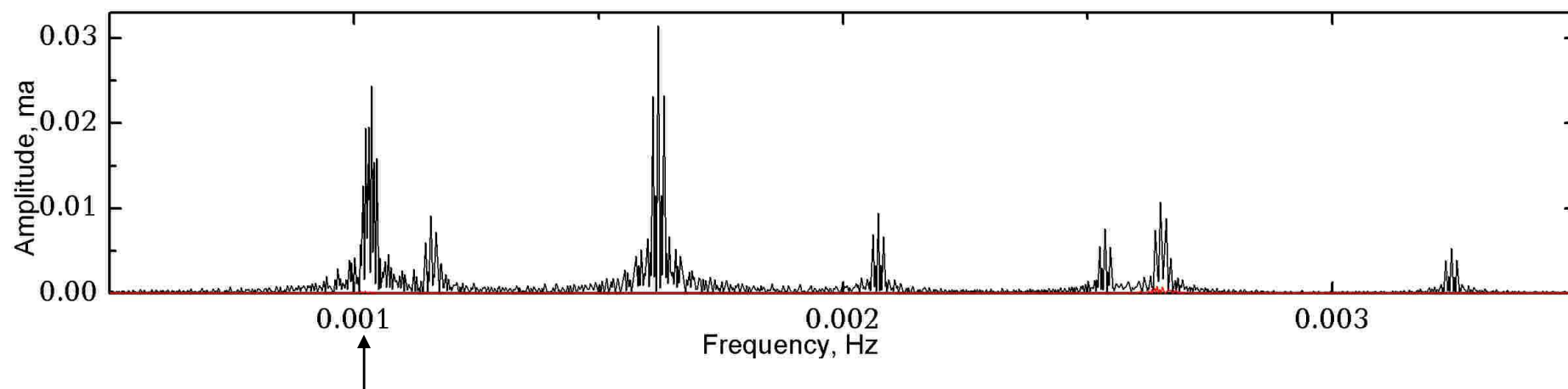
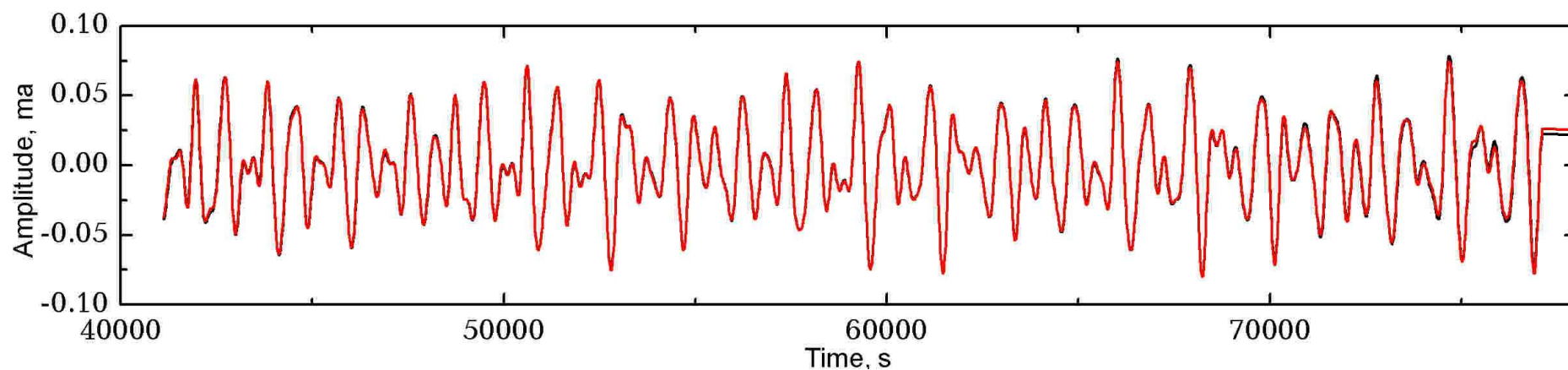
	Frequency	Amplitude	Phase
Initial data:	0.0032445705	0.00522914	0.46826
Results of prewhitening:	0.0032445716	0.00522444	0.16532



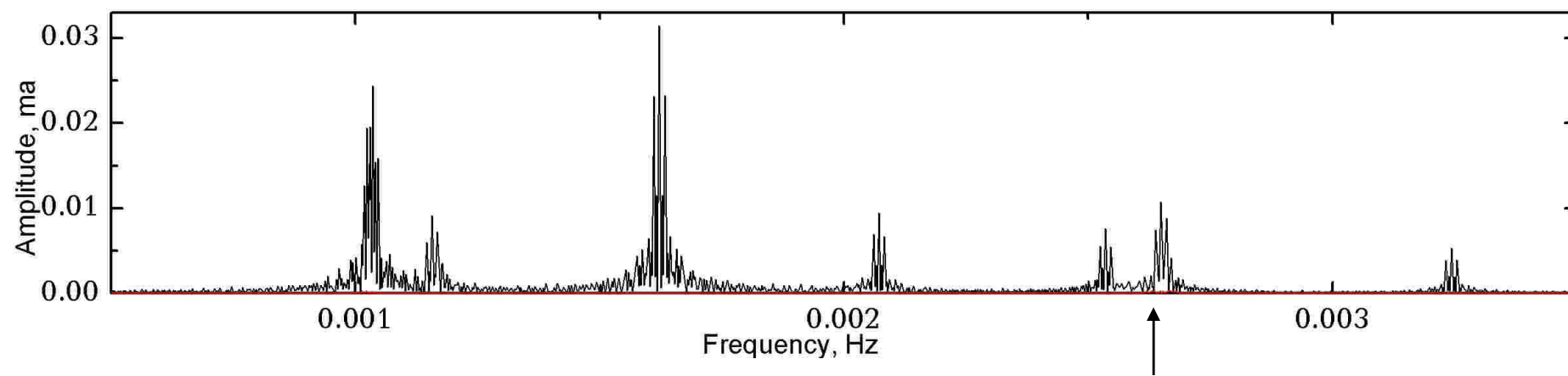
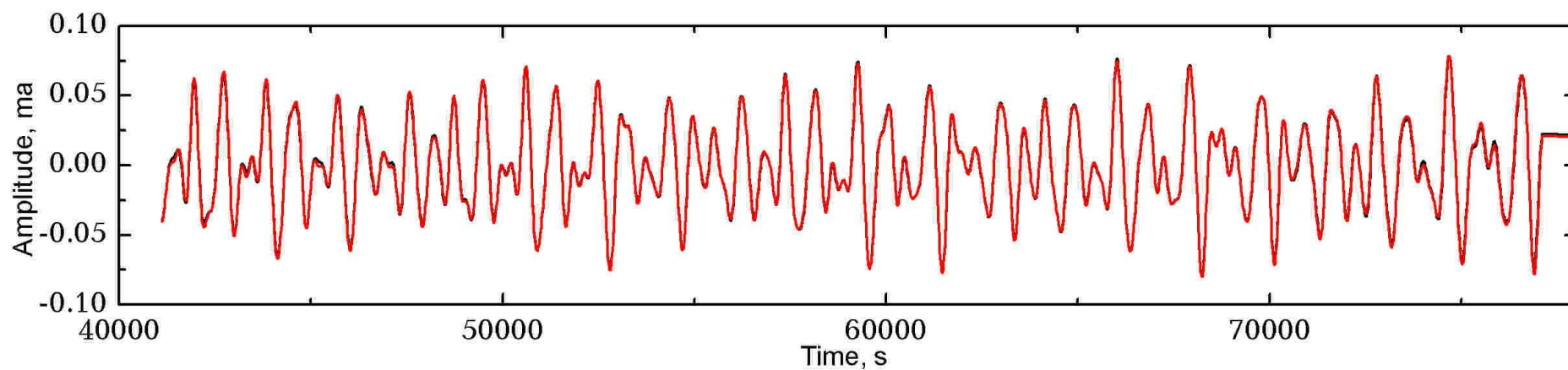
	Frequency	Amplitude	Phase
Initial data:	0.0026581119	0.00453730	0.24275
Results of prewhitening:	0.0026582845	0.00525374	0.87729



	Frequency	Amplitude	Phase
Initial data:	0.0011657932	0.00486246	0.19975
Results of prewhitening:	0.0011657819	0.00484521	0.40603



	Frequency	Amplitude	Phase
Initial data:	0.0010266301	0.01114082	0.89579
	0.0010273817	0.01476469	0.49031
Results of prewhitening:	0.0010199910	0.00243898	0.55994

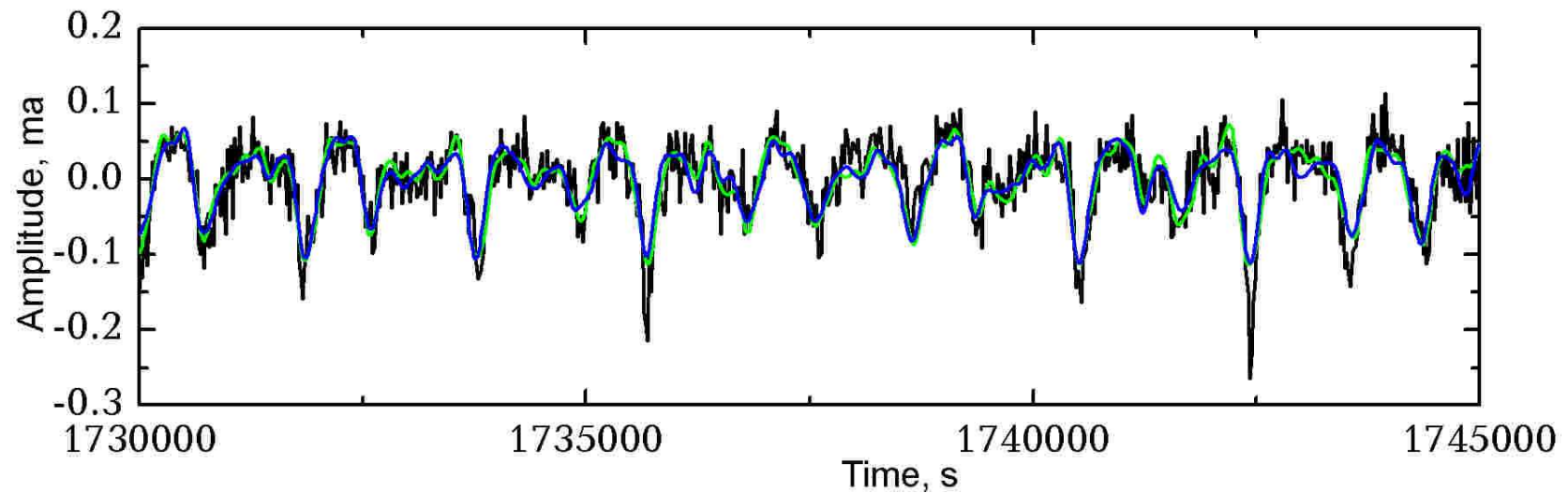
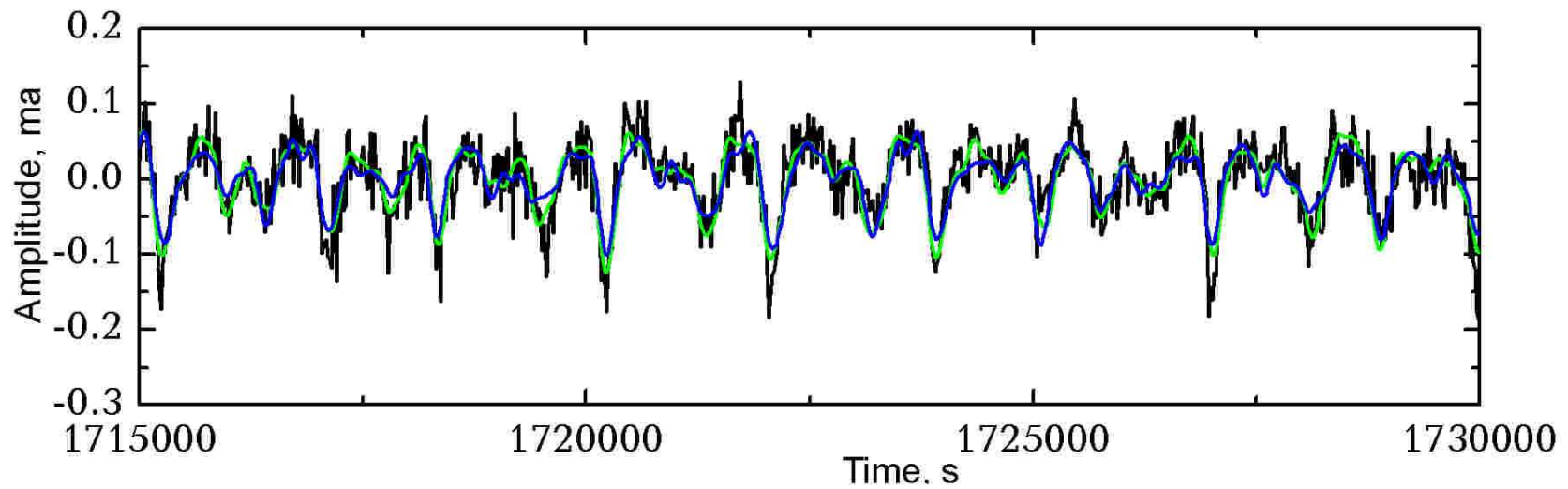


	Frequency	Amplitude	Phase
Initial data:	0.0026509081	0.00452670	0.28883
Results of prewhitening:	0.0026422134	0.00095305	0.87041

	Frequency*	Amplitude*	Phase*	Frequency**	Amplitude**	Phase**
-				0.0010199910	0.00243898	0.55994
<u>F1</u>	<u>0.0010266301</u>	<u>0.01114082</u>	<u>0.89579</u>	-		
<u>F2</u>	<u>0.0010273817</u>	<u>0.01476469</u>	<u>0.49031</u>	-		
F3	0.0010283870	0.01221335	0.25797	0.0010285793	0.01364001	0.55126
F4	0.0010358170	0.01912219	0.87051	0.0010357288	0.02116218	0.92714
F5	0.0011576700	0.00739196	0.95332	0.0011577075	0.00734622	0.66727
F6	0.0011657932	0.00486246	0.19975	0.0011657819	0.00484521	0.40603
F7	0.0016222927	0.03130058	0.05999	0.0016222938	0.03132446	0.06022
F8	0.0020715178	0.00902302	0.16150	0.0020715116	0.00901540	0.51934
F9	0.0025358221	0.00731064	0.25242	0.0025358154	0.00734202	0.83245
<u>F10</u>	<u>0.0026499797</u>	<u>0.00797992</u>	<u>0.42015</u>	<u>0.0026502747</u>	<u>0.00954511</u>	<u>0.93457!</u>
<u>F11</u>	<u>0.0026509081</u>	<u>0.00452670</u>	<u>0.28883</u>	<u>0.0026422134</u>	<u>0.00095305</u>	<u>0.87041!</u>
F12	0.0026581119	0.00453730	0.24275	0.0026582845	0.00525374	0.87729
F13	0.0032445705	0.00522914	0.46826	0.0032445716	0.00522444	0.16532

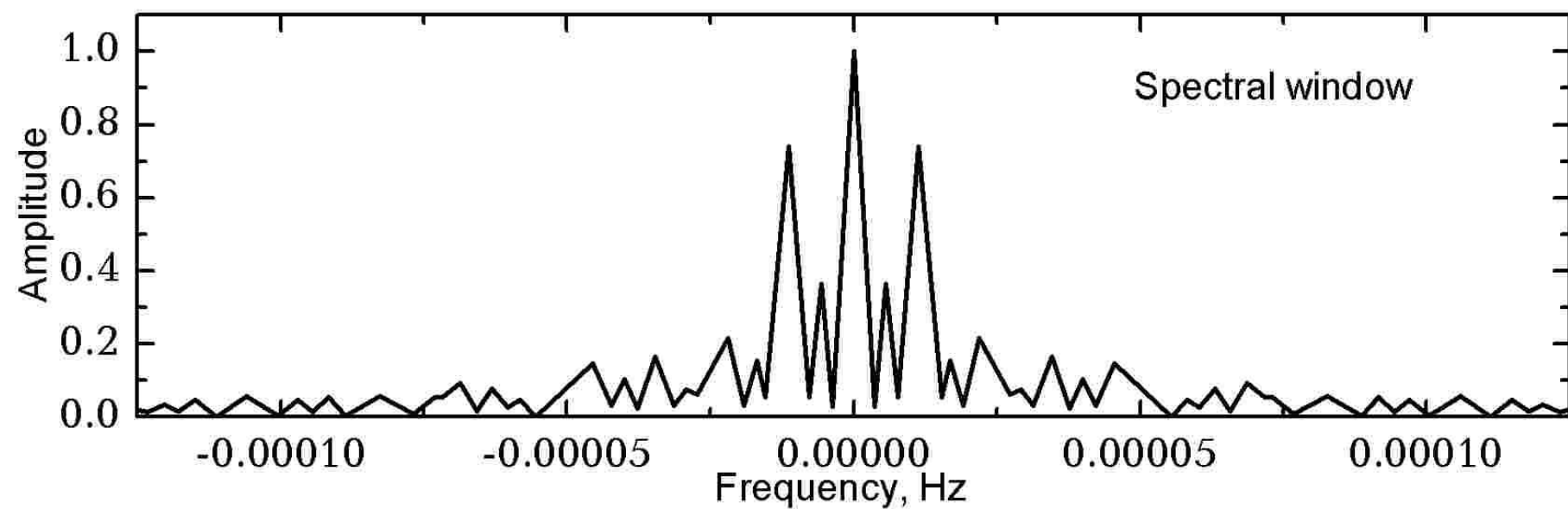
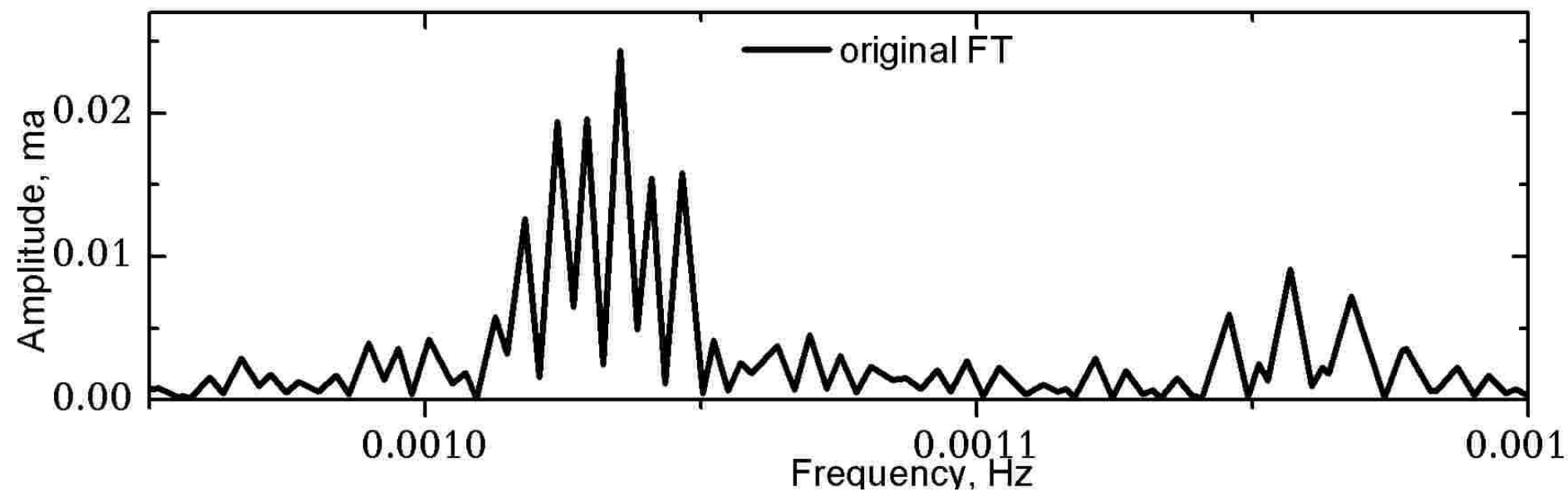
* Frequencies used to calculate synthetic light curve

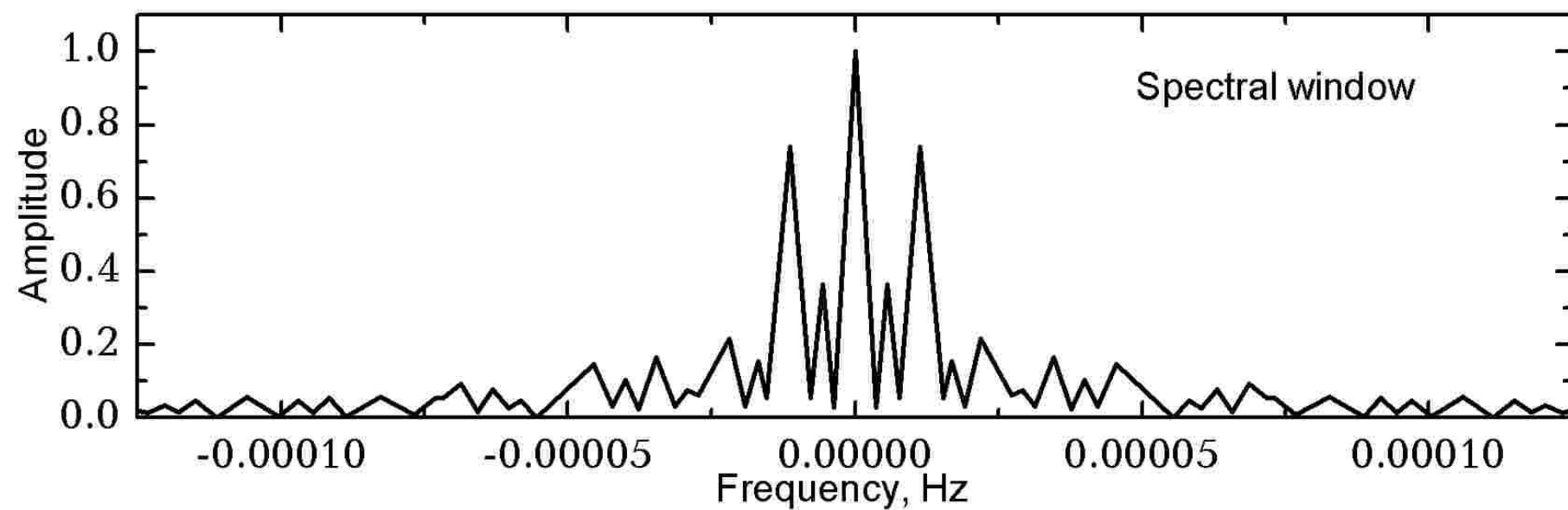
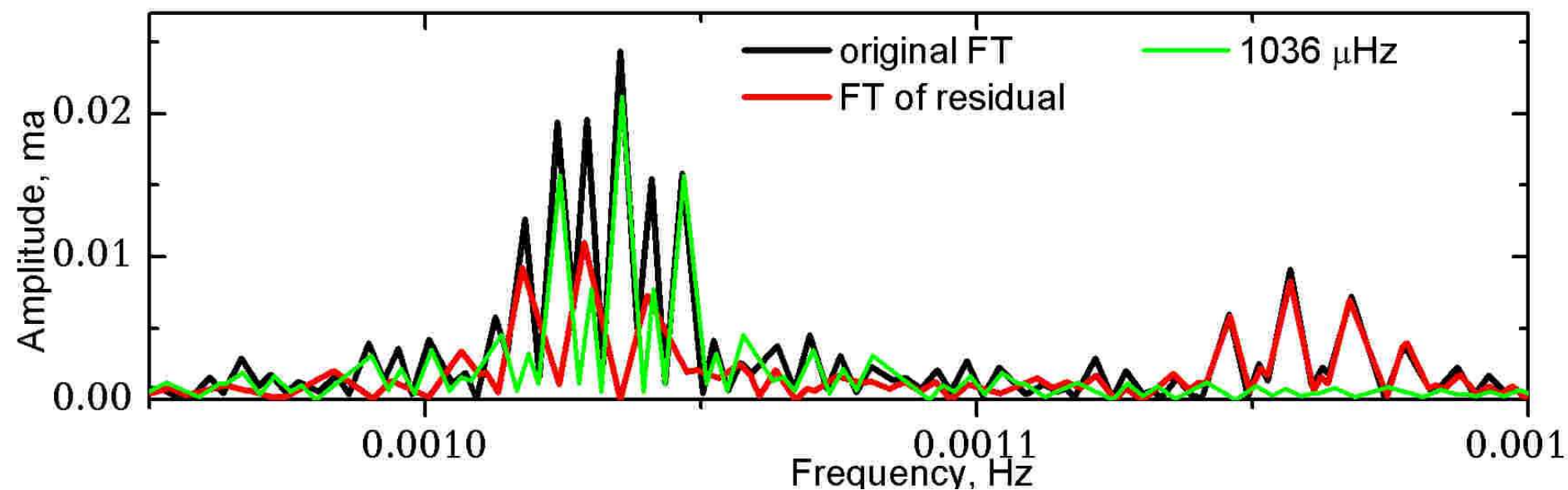
** Frequencies estimated by prewhitening

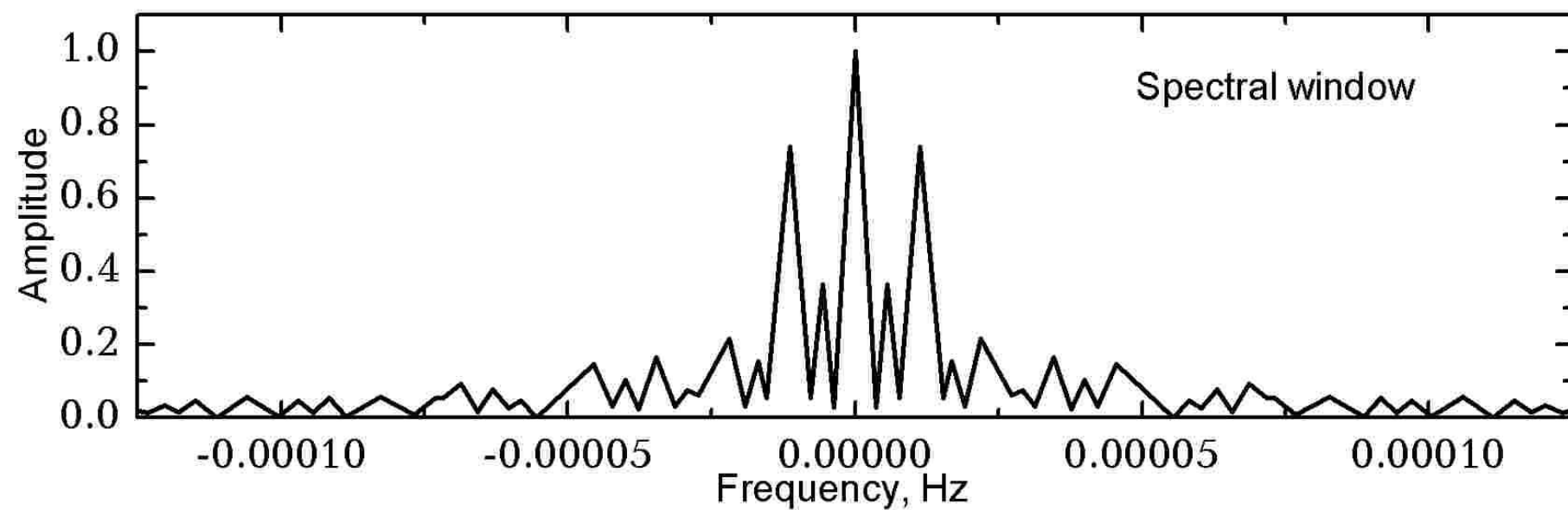
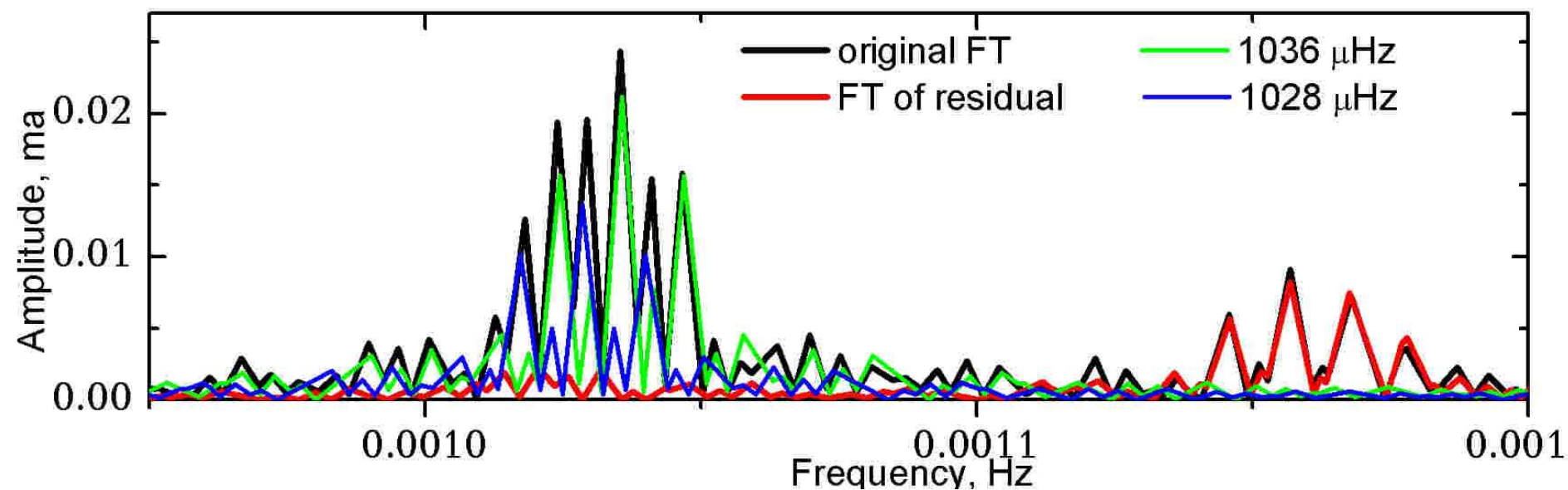


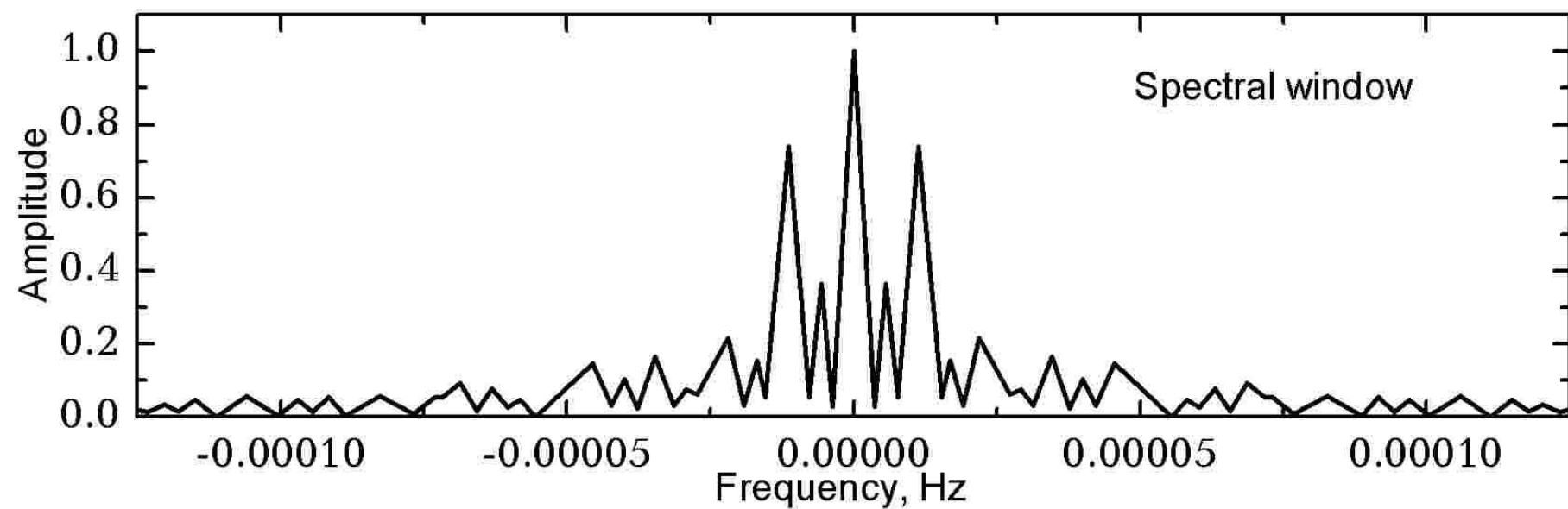
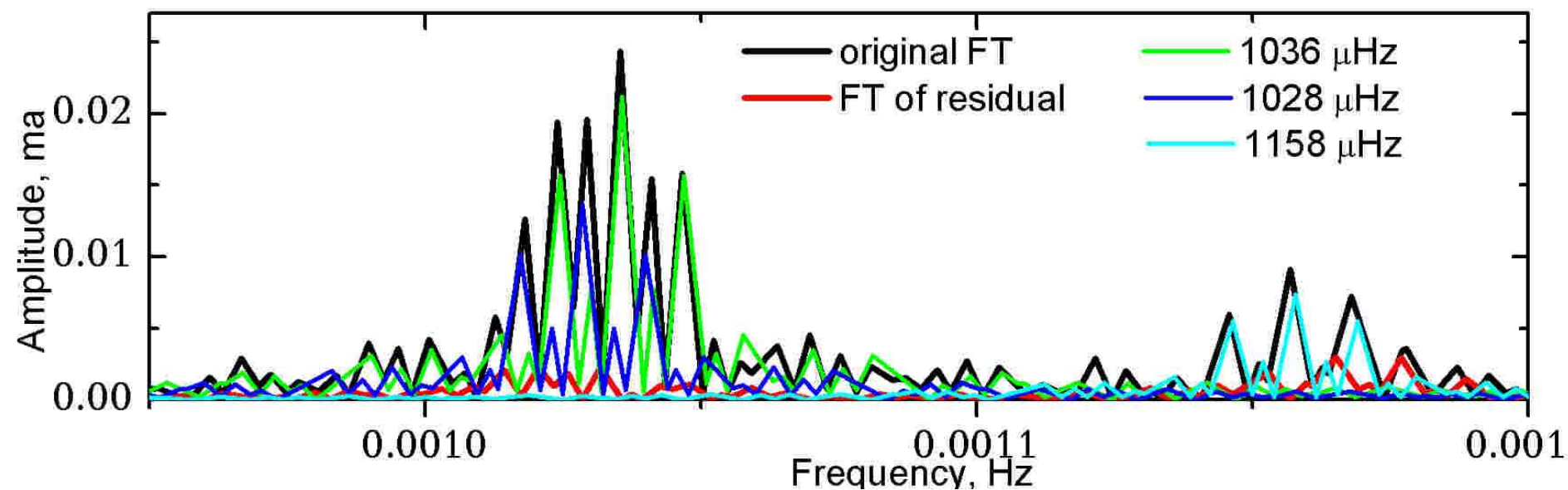
- Observed LC of PG2303+243 in Teide Obs. (16/09/2004)
- Synthetic LC with 21 frequencies, estimated using one night observations
- Synthetic LC with 69 frequencies, estimated using 15 nights observations

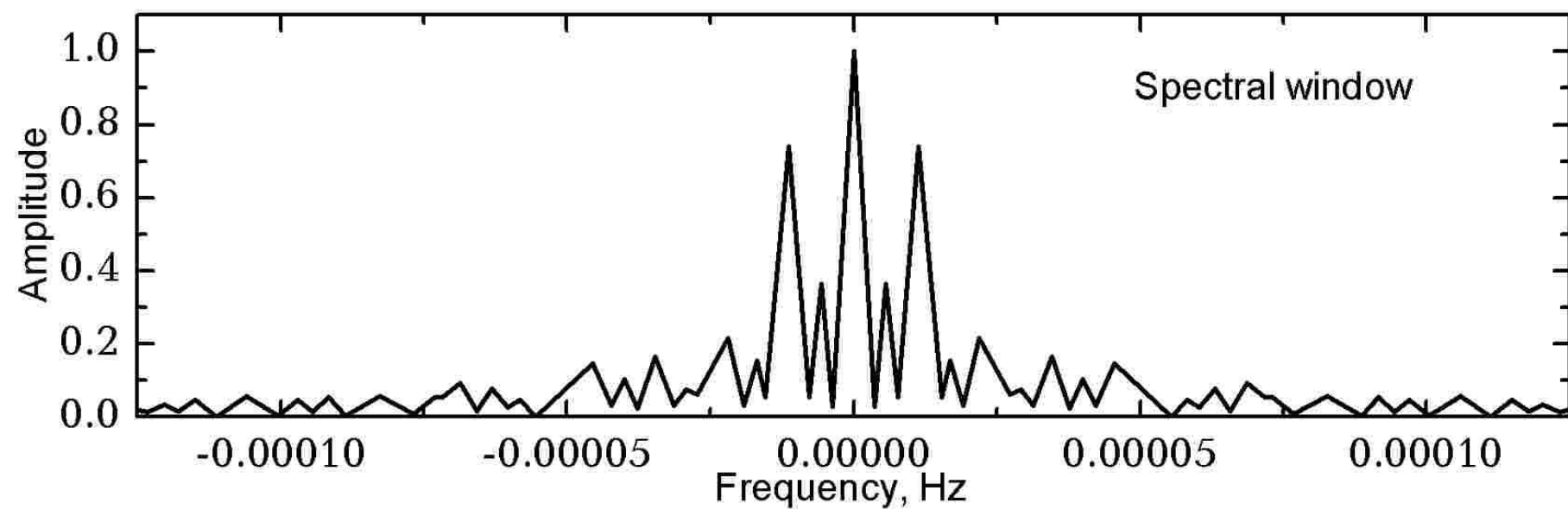
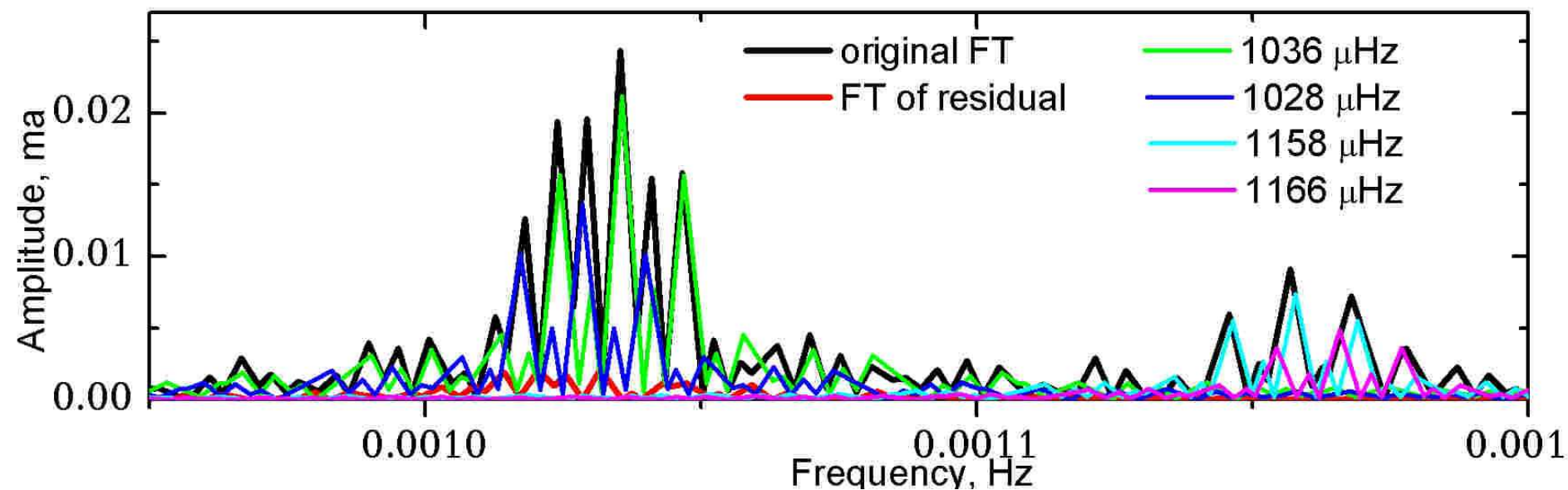
What happen when close spaced
frequencies data should be estimated

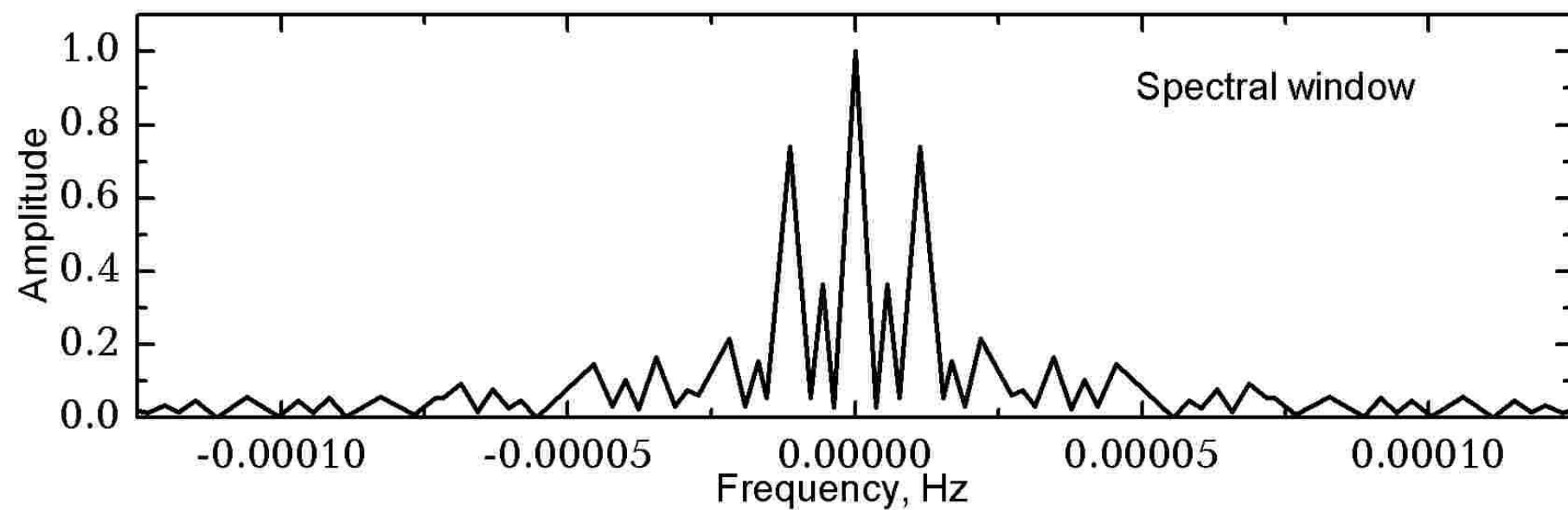
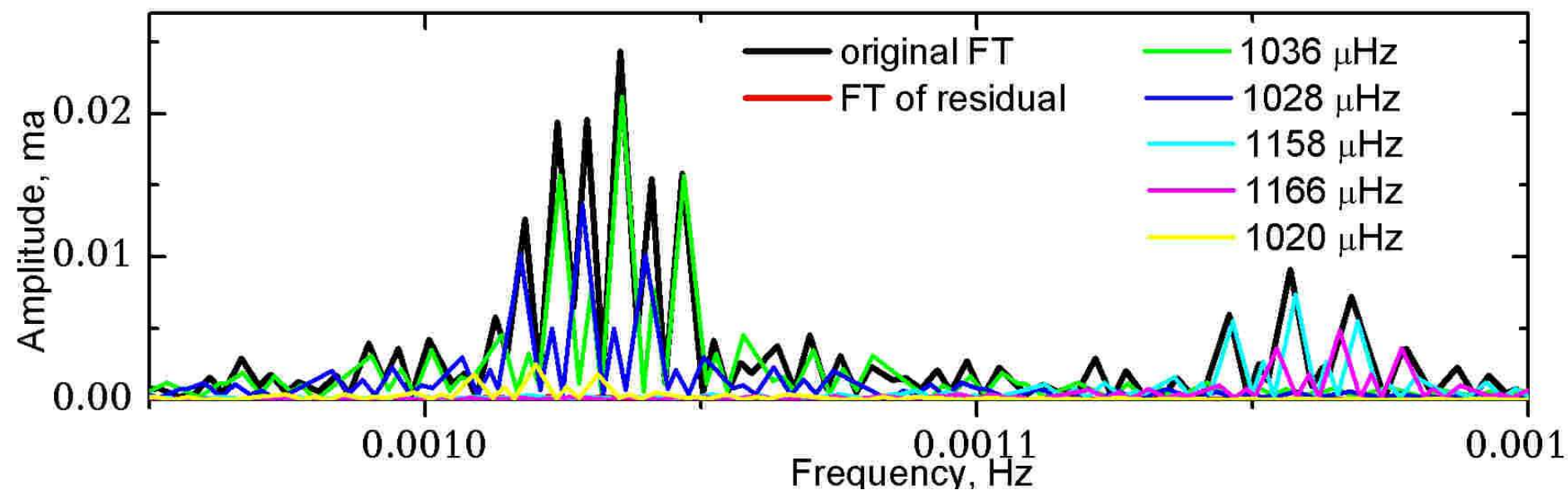












ID	Comments ^a	Frequency (μ Hz)	σ_{freq}	Amplitude (mma)	σ_{amp}	Phase	σ_{phase}	A_{min} ^b (mma)	Combinations of frequencies
f1	b	447.5	0.13	3.3	0.60	0.164	0.019	2.1	
f2		488.6	0.05	3.1	0.29	0.538	0.016	2.1	
f3	b,*,h1/2	578.6	0.11	6.2	0.60	0.306	0.009	2.1	(1/2) $\times$ f10 (0.3)
f4		594.5	0.07	2.2	0.30	0.196	0.030	2.1	
f5		938.0	0.07	2.2	0.29	0.316	0.025	2.0	
f6	b	1027.5	0.12	22.2	2.14	0.984	0.003	2.0	
f7	b,**,h0	1035.9	0.14	19.7	1.13	0.925	0.003	2.0	
f8		1044.3	0.05	3.9	0.35	0.662	0.011	2.0	
f9		1145.2	0.05	3.9	0.31	0.487	0.012	2.0	
f10	**,h0	1157.7	0.02	7.4	0.31	0.066	0.007	2.0	
f11		1165.8	0.03	4.9	0.30	0.276	0.012	2.0	
f12	b	1173.3	0.07	6.1	0.61	0.477	0.013	2.0	
f13		1287.7	0.06	2.5	0.29	0.619	0.020	2.0	
f14		1405.5	0.07	2.0	0.29	0.256	0.025	2.0	
f15		1489.0	0.07	2.2	0.30	0.424	0.024	2.0	
f16		1524.5	0.06	2.7	0.31	0.668	0.020	2.0	
f17		1527.7	0.06	2.5	0.31	0.737	0.019	2.0	
f18		1606.2	0.03	4.9	0.29	0.119	0.010	2.0	f3+f6 (0.1)
f19	*,h0	1622.3	0.00	31.3	0.29	0.055	0.002	2.0	
f20	***	1729.8	0.05	2.8	0.29	0.815	0.018	1.9	
f21	b,**,h1	2071.8	0.08	9.4	0.59	0.158	0.005	1.9	2 $\times$ f7 (0.0)
f22	**	2201.7	0.04	3.4	0.30	0.167	0.015	1.9	f3+f19 (0.8)
f23		2211.6	0.07	2.2	0.30	0.398	0.023	1.9	
f24	***	2535.8	0.02	7.3	0.31	0.300	0.010	1.9	
f25	b	2559.5	0.16	2.8	0.61	0.084	0.025	1.8	
f26	b,*	2650.3	0.24	10.0	1.38	0.305	0.006	1.8	f6+f19 (0.5)
f27		2658.1	0.04	4.5	0.31	0.348	0.011	1.8	f7+f19 (0.1)
f28	b,***	2779.4	0.14	3.6	0.60	0.290	0.014	1.8	f10+f19 (0.6)
f29	b,**	3100.9	0.14	3.1	0.60	0.030	0.017	1.8	
f30	h2	3107.4	0.06	2.4	0.30	0.221	0.021	1.8	3 $\times$ f7 (0.3)
f31	**,h1	3244.6	0.03	5.2	0.30	0.479	0.010	1.8	2 $\times$ f19 (0.0)
f32	b	3563.2	0.20	2.6	0.63	0.388	0.020	1.7	f6+f24 (0.1)

Find more info about Period04:
\Papers\Period04_tutorials\
\Papers\period04manual_v1.0.0.pdf

Example:
\Papers\2011MNRAS_Pakstiene_PG2303+243.pdf

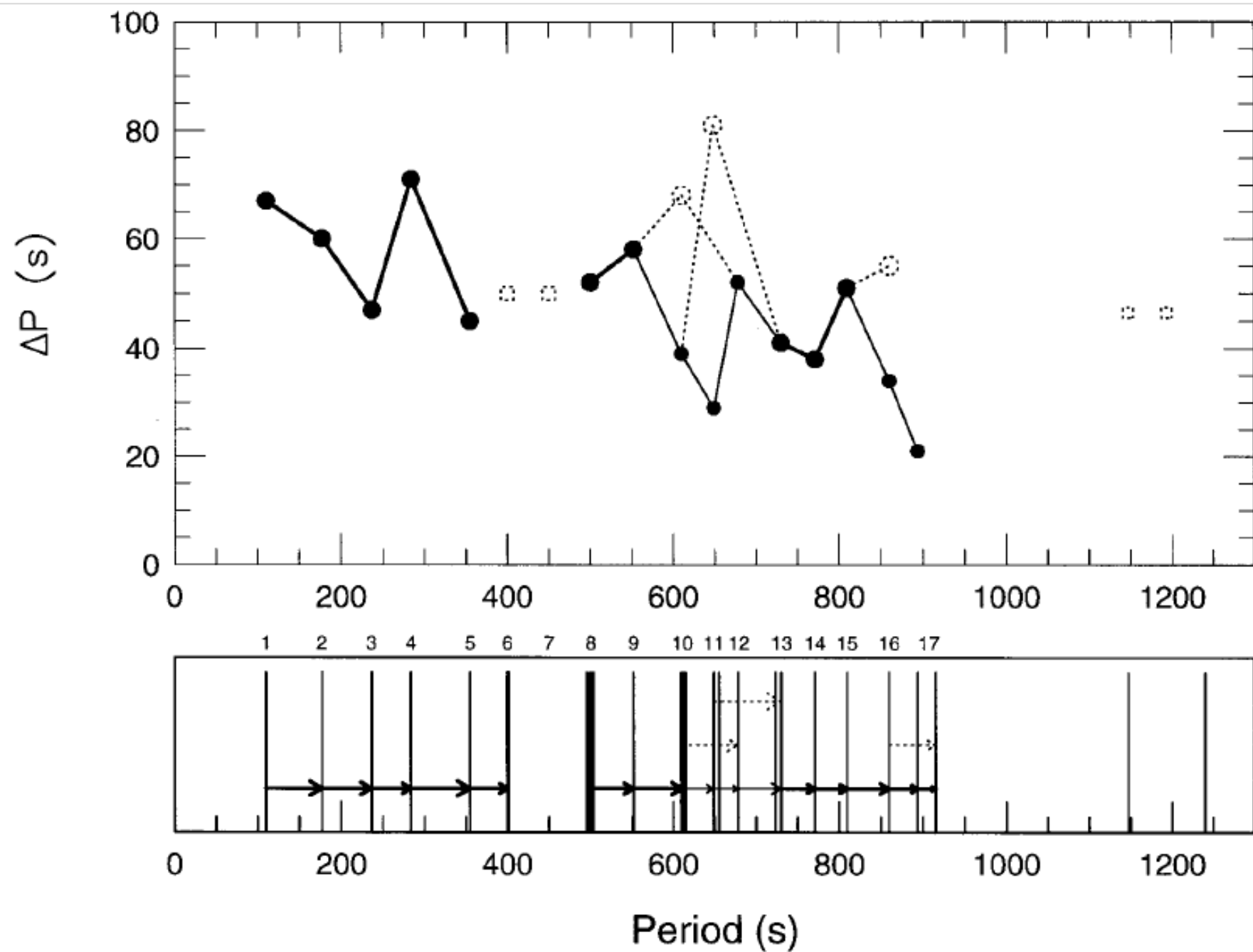
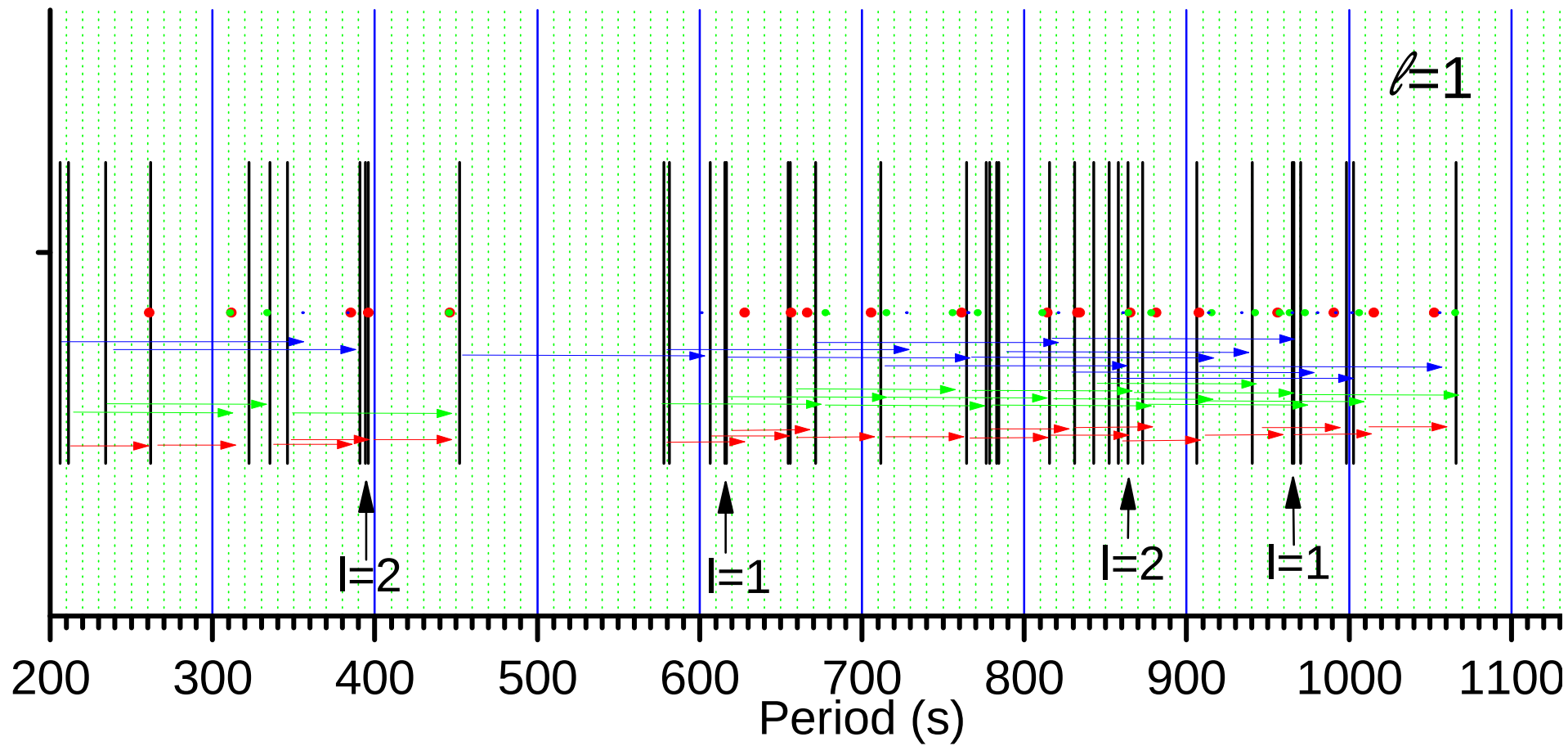


FIG. 5.—Observed ΔP vs. P diagram for G29 – 38



No	ν; μHz	P; s	A; mma	ΔP; s	l	k	year
1	447.5	2234.6	3.3	--	--		2004
2	488.6	2046.7	3.1	--	--		2004
3	586.5	1705.0	1.6	--	--		2004
4	770.0	1298.7	4	--	--		2005
5	938.0	1066.1	2.2	--	1;2	17;30	2004
6	997.1	1002.9	5.4	31.6	2	28	2005
7	1001.7	998.3	6.7	--	--		2005
8	1030.6	970.3	5.1	32.6	2	27	2005
9	1035.9	965.3	19.7	50.4	1	15	2004
10	1063.1	940.6	7.5	29.7	2	26	2005
11	1103.2	906.5	8.3	34.1	2	25	2005
12	1145.2	873.2	3.9	33.3	2	24	2004
13	1157.7	863.8	7.4	50.7	1	13	2004
14	1165.8	857.8	4.9	--	--		2004
15	1173.3	852.3	6.1	--	--		2004
16	1186.6	842.7	5.3	30.5	2	23	2005
17	1203.0	831.3	6	--	--		2005
18	1226.1	815.6	12.4	48.2	1;(2)	12;(22)	2005
19	1274.7	784.5	14.5	--	(2)	(21)	2005
20	1284.5	778.5	20.9	32.1	2	21	2005
21	1308.1	764.5	6.2	51.12	1	11	2005
22	1405.5	711.5	2	53	1	10	2004
23	1489.0	671.6	2.2	--	--		2004
24	1524.5	656.0	2.7	30.6	2	17	2004

Find more info about Period04:

- \Papers\Period04_tutorials\
 - \Papers\period04manual_v1.0.0.pdf
- Example:
 - \Papers\2011MNRAS_Pakstiene_PG2303+243.pdf
- Example of period spacing:
 - \Papers\1998Kleinman_G29-38.pdf