

Title: Direct Analysis in Real Time Mass Spectrometry for the Non-destructive Investigation of Conservation Treatments of Cultural Heritage

Authors: Marcello Manfredi^{*1}, Elisa Robotti¹, Greg Bearman², Fenella France³, Elettra Barberis¹, Pnina Shor⁴, Emilio Marengo¹

Supporting Information 1. Weights of each original variable on the first and second Roots calculated by canonical analysis. For Root 1, weights with absolute value > 0.1 were considered statistically significant; for Root 2 instead, statistically significant weights were characterized by an absolute value > 0.05. Statistically significant weights were identified by Normal Probability plots.

m/z	Weight on Root 1	Weight on Root 2	m/z	Weight on Root 1	Weight on Root 2	m/z	Weight on Root 1	Weight on Root 2
75.037	-0.131	0.027	188.078	0.084	0.066	259.056	-0.011	-0.053
81.058	0.021	-0.028	188.086	0.009	-0.016	259.062	0.012	0.017
81.063	0.072	0.052	188.091	0.018	-0.049	259.077	0.003	-0.016
83.039	0.018	0.020	188.1	0.024	0.017	259.125	-0.012	0.005
83.044	0.012	0.017	188.106	0.035	-0.042	259.133	-0.008	0.002
83.073	0.133	0.111	188.115	0.034	-0.001	259.14	0.012	-0.023
83.078	-0.005	-0.038	188.123	0.030	0.031	259.147	0.056	0.076
85.018	0.213	0.047	188.131	-0.002	0.017	259.155	0.017	0.020
85.052	0.124	0.139	188.147	0.025	0.013	259.164	0.017	-0.049
85.057	-0.008	-0.062	188.155	0.025	0.029	259.176	-0.005	-0.010
85.072	0.013	0.002	188.163	0.016	-0.016	259.185	0.007	-0.016
85.078	0.007	-0.001	188.171	0.002	-0.030	259.195	0.006	-0.004
85.086	0.070	0.119	188.18	0.008	-0.004	259.214	-0.012	0.003
85.091	0.011	-0.022	188.195	0.025	-0.006	259.223	-0.014	0.004
85.099	0.010	-0.006	188.212	0.056	0.043	259.286	0.006	-0.002
85.132	0.010	0.003	188.243	0.018	0.020	260.06	-0.013	0.001
86.05	0.131	0.079	189.042	0.001	-0.046	260.069	0.066	0.012
86.055	0.011	-0.013	189.052	0.006	0.006	260.081	0.010	0.003
86.083	0.109	0.033	189.063	0.060	0.134	260.098	0.011	0.030
86.09	0.004	-0.008	189.072	0.003	0.029	260.105	0.036	0.055
86.107	-0.010	-0.007	189.082	-0.032	-0.040	260.111	0.034	0.026
86.112	0.015	-0.062	189.089	0.033	-0.022	260.12	0.017	-0.034
86.128	0.007	-0.009	189.094	0.010	-0.010	260.13	0.005	-0.004
86.134	-0.012	-0.042	189.1	-0.022	-0.052	260.14	0.044	0.020
86.139	0.007	-0.008	189.12	-0.014	0.002	260.149	0.030	-0.011
86.147	0.024	0.019	189.136	0.003	-0.009	260.156	0.021	-0.026
86.166	0.020	0.012	189.145	0.006	-0.011	260.162	0.041	0.034
87.033	0.112	0.076	189.177	0.021	0.034	260.173	-0.020	0.025
87.06	0.064	0.071	189.193	0.015	0.002	260.187	0.032	0.002
87.066	0.042	0.034	189.202	0.012	0.017	260.195	0.022	-0.018
87.071	-0.005	-0.029	189.209	0.017	0.015	260.205	0.007	-0.008
87.076	0.002	0.013	189.226	0.009	0.003	260.233	-0.002	-0.054
87.082	0.007	-0.049	189.241	0.010	-0.023	261.052	-0.005	-0.038

87.087	0.015	-0.016	190.077	-0.050	0.045	261.075	0.041	0.040
87.092	-0.015	0.002	190.082	0.027	-0.033	261.085	0.020	0.013
87.098	-0.015	0.007	190.088	0.006	-0.015	261.097	0.016	0.014
87.103	-0.024	0.005	190.185	0.012	-0.014	261.107	0.023	0.052
87.109	0.009	-0.006	190.193	-0.055	0.008	261.113	0.017	0.048
87.115	0.016	0.013	190.209	-0.011	-0.053	261.122	0.002	-0.038
87.126	0.028	0.036	190.217	-0.005	-0.011	261.129	0.008	0.022
87.131	0.017	0.027	190.229	-0.065	0.014	261.135	0.013	-0.013
87.136	0.025	0.010	190.242	0.027	0.008	261.141	0.017	0.019
87.142	0.091	0.074	190.25	0.011	0.004	261.15	0.007	0.007
87.147	0.011	0.016	190.258	-0.003	-0.022	261.16	0.038	0.040
87.156	0.043	0.057	190.266	0.008	0.050	261.173	0.009	0.011
87.161	0.028	0.004	190.278	-0.036	0.051	261.188	0.034	0.086
87.169	0.033	0.037	190.297	0.007	-0.004	261.198	0.013	-0.002
87.18	0.022	0.031	190.306	0.007	0.010	261.207	0.001	-0.036
87.191	0.007	0.010	190.314	-0.012	0.003	261.245	0.003	-0.029
88.027	0.030	0.057	191.083	-0.161	0.053	261.254	-0.005	-0.038
88.033	0.032	-0.009	191.1	0.089	0.045	262.027	-0.001	-0.050
88.063	0.126	0.039	191.107	0.077	-0.099	262.043	0.007	-0.022
88.068	-0.024	0.000	191.113	0.016	-0.022	262.06	0.012	0.024
88.09	0.087	0.073	191.122	0.029	0.085	262.069	0.034	0.049
88.095	0.037	-0.079	191.22	0.006	0.006	262.075	0.002	-0.030
88.101	0.001	-0.007	191.228	0.074	0.037	262.086	0.013	0.005
88.117	-0.015	0.003	191.236	-0.003	-0.007	262.099	0.008	-0.025
88.123	-0.012	0.005	191.252	-0.005	-0.021	262.11	0.019	0.015
88.139	0.002	-0.003	191.26	0.075	-0.009	262.118	0.012	0.024
88.145	0.070	0.076	191.268	0.023	-0.025	262.126	0.027	0.029
88.15	0.054	-0.036	191.276	0.010	-0.012	262.136	0.033	0.040
88.156	0.026	0.003	191.285	0.005	-0.005	262.145	0.051	0.075
88.164	0.044	-0.005	191.293	0.040	0.008	262.153	0.004	-0.064
88.169	0.053	-0.038	191.3	0.040	-0.022	262.158	0.006	-0.011
88.175	0.043	-0.016	191.309	0.062	-0.037	262.164	0.052	0.058
88.18	0.020	0.005	191.316	0.019	0.024	262.173	0.008	-0.065
88.194	0.092	-0.004	191.325	0.009	-0.010	262.183	0.007	0.007
88.205	0.005	-0.005	192.02	0.010	0.010	262.201	0.007	-0.005
88.214	0.009	-0.061	192.043	0.010	0.012	262.211	0.008	-0.006
89.01	0.034	0.031	192.051	0.010	0.006	262.23	-0.005	-0.038
89.018	0.043	0.037	192.112	-0.094	0.006	263.066	-0.002	-0.026
89.049	0.110	0.065	192.119	-0.007	-0.023	263.099	0.000	-0.017
89.071	-0.013	0.018	192.184	0.012	-0.007	263.106	0.015	0.031
89.076	0.075	0.104	192.192	0.005	-0.007	263.114	-0.066	-0.024
89.087	0.005	-0.009	192.222	0.013	0.004	263.119	0.007	0.032
89.093	-0.034	0.012	192.229	0.007	0.005	263.125	0.050	0.085
89.098	0.114	0.095	192.258	-0.006	-0.013	263.13	0.012	-0.043
89.104	0.014	-0.017	192.265	-0.109	-0.006	263.135	0.000	-0.012
89.109	0.005	-0.009	192.273	-0.013	0.000	263.142	0.007	-0.025
89.115	0.012	0.006	192.282	-0.014	0.000	263.151	-0.001	0.015

89.12	0.029	0.021	192.287	-0.005	-0.006	263.16	0.012	-0.011
89.126	0.056	0.070	192.294	-0.008	-0.004	263.17	0.002	0.016
89.131	-0.009	-0.059	192.339	-0.014	0.000	263.179	0.005	0.001
89.137	0.010	0.012	192.347	-0.017	-0.001	263.189	-0.026	-0.003
89.142	-0.003	-0.063	193.028	0.046	0.054	263.217	0.017	0.028
89.148	0.103	0.131	193.034	-0.007	-0.062	263.226	-0.014	0.004
89.153	0.000	-0.034	193.049	0.011	0.043	263.304	0.014	0.039
89.159	0.010	0.012	193.054	0.005	-0.005	264.031	0.012	0.017
89.17	0.068	0.069	193.062	0.007	0.005	264.059	0.024	0.029
89.175	-0.011	-0.053	193.07	0.014	0.041	264.088	-0.134	0.015
90.041	0.146	0.063	193.078	0.005	-0.027	264.095	-0.052	0.041
90.046	0.016	0.012	193.09	0.024	-0.002	264.102	0.022	-0.034
90.076	0.130	-0.024	193.096	0.046	0.054	264.111	0.033	0.039
90.082	-0.016	0.000	193.104	0.035	0.023	264.122	0.013	-0.012
90.101	0.018	-0.059	193.111	-0.113	-0.069	264.127	0.018	0.012
90.106	0.031	-0.027	193.116	-0.015	-0.006	264.135	0.018	0.004
90.112	0.012	0.035	193.123	0.024	0.031	264.143	-0.013	0.004
90.129	0.012	0.017	193.152	-0.012	0.005	264.149	0.019	0.054
90.14	0.006	-0.027	193.16	0.005	-0.009	264.159	0.004	0.017
91.027	-0.143	0.060	193.188	-0.022	0.005	264.168	0.004	0.028
91.036	0.009	0.059	193.2	0.012	0.035	264.186	0.019	0.018
91.046	-0.019	0.002	193.209	-0.002	-0.026	264.202	0.010	0.010
91.055	0.041	0.056	193.225	0.044	0.046	265.051	0.002	-0.030
91.062	0.014	0.044	193.233	0.007	-0.010	265.065	0.015	0.026
91.07	-0.014	0.004	193.262	0.010	0.003	265.087	0.013	-0.002
91.082	-0.021	0.001	194.024	0.029	0.030	265.093	0.001	0.027
91.087	0.015	0.022	194.038	0.010	0.010	265.1	-0.059	0.034
91.104	0.015	0.014	194.054	0.034	0.043	265.106	-0.002	-0.055
91.11	0.040	0.086	194.063	0.012	0.017	265.112	0.032	0.026
91.132	0.010	0.014	194.068	0.075	0.082	265.121	-0.015	0.026
92.06	0.049	0.019	194.074	0.018	0.021	265.128	0.017	-0.011
93.037	-0.133	0.020	194.08	-0.013	-0.043	265.134	0.003	-0.008
93.042	-0.102	0.017	194.089	-0.091	0.023	265.141	0.013	-0.002
93.059	0.013	-0.014	194.096	-0.087	0.007	265.15	-0.046	0.013
93.065	0.009	-0.005	194.106	0.009	-0.022	265.159	0.023	0.000
93.07	0.008	-0.004	194.114	0.047	0.040	265.164	0.016	0.048
93.076	0.040	0.034	194.121	0.079	-0.095	265.178	-0.025	0.004
93.082	0.000	-0.068	194.129	0.054	0.016	265.188	0.001	0.011
93.087	0.006	-0.034	194.137	0.010	0.003	265.197	0.026	0.006
93.093	-0.222	0.031	194.163	0.058	0.084	265.206	0.012	0.035
93.104	0.010	0.012	194.17	0.009	-0.051	265.216	-0.027	0.012
93.109	0.006	-0.002	194.178	0.010	0.006	265.226	-0.002	-0.018
93.132	-0.014	0.004	194.195	0.016	0.008	265.235	0.023	0.003
93.138	-0.112	0.007	194.203	0.006	-0.031	265.255	0.022	0.029
93.155	-0.121	0.022	195.02	0.097	0.020	265.263	-0.002	-0.026
93.186	-0.213	0.032	195.026	0.015	-0.007	265.273	0.020	-0.023
93.223	-0.205	0.032	195.034	-0.032	0.036	266.073	0.009	0.009

93.248	-0.231	0.035	195.042	-0.027	0.004	266.08	0.007	-0.022
93.271	-0.182	0.029	195.047	0.011	-0.007	266.096	0.015	0.011
93.294	-0.063	0.011	195.056	0.001	-0.001	266.102	0.010	0.012
93.39	-0.016	0.001	195.065	0.046	0.031	266.114	0.019	0.039
93.412	-0.016	0.001	195.076	-0.005	0.017	266.123	0.008	-0.016
93.435	-0.016	0.001	195.085	0.001	0.026	266.134	0.039	0.085
93.574	-0.112	0.014	195.094	0.010	0.012	266.141	-0.003	-0.044
93.58	-0.023	0.006	195.113	-0.019	-0.023	266.146	0.010	0.006
93.591	-0.095	0.018	195.119	-0.028	-0.009	266.152	0.058	0.026
93.596	-0.030	0.002	195.126	0.140	-0.021	266.161	0.060	0.016
93.607	-0.024	0.007	195.133	0.012	0.017	266.169	0.014	-0.007
93.616	-0.112	0.018	195.159	0.004	0.017	266.189	0.036	0.017
93.63	-0.024	0.007	195.167	-0.005	-0.049	266.219	0.009	0.009
93.636	-0.083	0.017	195.2	0.009	0.011	266.228	0.021	-0.048
93.658	-0.028	0.010	195.208	0.009	-0.012	266.237	0.007	0.005
94.036	0.009	0.003	195.216	0.102	-0.067	266.262	-0.002	-0.026
94.044	-0.201	0.033	195.241	0.004	-0.032	267.095	0.061	-0.027
94.05	0.031	0.040	195.249	0.066	-0.048	267.101	0.070	0.047
94.07	-0.031	0.020	195.257	0.012	0.017	267.11	-0.113	0.040
94.095	-0.201	0.062	195.265	0.010	0.010	267.118	-0.091	0.010
94.101	0.026	-0.017	195.282	0.021	-0.013	267.125	0.006	-0.011
94.12	-0.207	0.034	196.018	0.006	-0.002	267.131	0.003	-0.003
94.135	-0.012	0.003	196.044	0.005	-0.005	267.137	0.009	-0.010
94.141	-0.139	0.027	196.055	0.018	0.012	267.147	0.013	-0.028
94.146	-0.014	0.002	196.06	-0.012	0.003	267.156	0.009	0.004
94.158	-0.024	0.005	196.066	0.089	0.071	267.165	0.021	0.029
94.163	-0.139	0.027	196.072	0.038	0.008	267.184	0.002	-0.028
94.186	-0.041	0.006	196.078	0.007	-0.004	267.194	0.015	0.020
94.195	-0.048	0.003	196.092	0.014	-0.006	267.204	0.005	0.004
95.032	0.113	0.075	196.101	-0.002	-0.026	267.246	-0.012	0.003
95.038	-0.008	-0.006	196.115	-0.012	0.003	268.023	0.017	0.004
95.043	-0.205	0.033	196.121	0.124	0.069	268.035	0.009	-0.041
95.052	0.036	0.038	196.127	0.009	-0.014	268.083	0.020	0.009
95.057	0.013	-0.011	196.158	0.010	0.006	268.09	0.041	0.030
95.064	0.005	0.051	197.037	-0.005	-0.038	268.095	-0.012	0.005
95.069	0.067	0.018	197.063	0.013	-0.031	268.103	0.068	0.092
95.074	-0.008	0.007	197.07	0.003	-0.034	268.111	-0.031	0.034
95.092	-0.016	0.023	197.077	-0.037	0.011	268.119	-0.058	-0.021
95.097	0.005	0.043	197.084	0.065	0.110	268.124	-0.028	-0.050
97.011	0.087	0.034	197.09	-0.036	0.005	268.13	-0.042	0.002
97.016	-0.011	0.045	197.095	0.036	0.045	268.139	0.032	-0.025
97.044	0.109	0.073	197.106	0.025	-0.013	268.145	0.023	-0.026
97.049	0.005	-0.039	197.131	0.018	0.007	268.152	-0.008	0.017
97.078	0.038	0.061	197.138	-0.003	-0.002	268.161	0.029	0.045
97.083	0.058	-0.015	197.144	0.018	-0.018	268.19	0.026	0.044
97.1	0.010	-0.014	197.152	0.006	0.006	268.2	0.012	-0.020
97.105	-0.029	0.000	197.169	0.054	0.049	268.237	-0.004	-0.048

97.112	-0.010	-0.005	197.176	0.001	0.019	268.282	0.009	0.011
97.123	-0.004	-0.006	197.184	-0.001	-0.033	268.325	0.008	-0.004
97.129	0.014	0.034	198.041	0.010	0.014	269.022	0.017	0.018
97.135	0.006	0.006	198.053	0.002	-0.030	269.041	0.010	0.006
98.049	0.040	0.077	198.06	0.037	0.046	269.094	-0.013	0.001
98.075	-0.027	0.010	198.069	0.040	0.017	269.099	-0.159	0.018
98.08	0.116	0.027	198.074	0.031	0.032	269.109	0.113	0.147
98.101	0.010	-0.017	198.084	0.015	0.007	269.119	0.014	-0.066
98.106	0.051	0.002	198.107	0.021	-0.006	269.127	0.033	-0.052
98.112	0.014	0.007	198.115	0.009	-0.039	269.132	0.017	-0.027
98.13	-0.008	-0.008	198.121	0.019	-0.011	269.14	0.000	-0.007
98.135	0.170	0.070	198.126	-0.011	-0.053	269.146	-0.006	-0.002
98.156	0.093	0.034	198.132	0.098	0.095	269.16	-0.012	0.009
98.161	0.022	0.030	198.139	0.054	0.040	269.169	0.009	0.050
98.176	0.008	-0.004	198.144	-0.012	0.004	269.179	0.026	0.026
98.182	0.006	-0.011	198.173	0.010	0.006	269.189	-0.014	0.004
98.187	0.013	0.003	198.18	0.051	0.067	269.208	0.003	-0.012
98.97	0.058	-0.018	199.044	0.002	-0.030	269.217	0.111	0.083
99.029	0.081	0.018	199.054	0.036	0.039	269.222	0.010	-0.015
99.065	0.117	0.086	199.062	0.004	-0.029	269.246	-0.012	0.003
99.07	0.006	-0.007	199.07	-0.120	0.018	269.255	0.028	-0.012
99.144	0.018	-0.010	199.077	-0.042	0.002	269.285	0.016	0.018
99.15	-0.013	0.001	199.098	-0.013	0.001	269.293	0.039	0.044
99.205	0.010	0.014	199.107	-0.012	0.005	269.323	0.006	-0.002
100.094	0.125	-0.072	199.115	0.033	0.075	269.332	0.039	0.067
100.179	0.007	0.010	199.121	0.105	-0.066	269.341	0.020	0.014
100.202	-0.016	0.000	199.162	-0.016	-0.003	269.377	0.027	0.018
100.208	0.012	0.011	199.195	-0.016	0.001	270.027	0.020	0.034
100.214	-0.026	0.001	199.204	-0.012	0.005	270.036	0.030	-0.026
100.24	0.003	-0.008	199.228	0.003	-0.009	270.045	0.022	0.032
100.269	-0.028	0.010	199.237	0.015	-0.005	270.074	0.012	0.024
100.379	0.003	-0.009	199.245	0.003	-0.008	270.084	0.005	0.026
100.391	0.014	-0.018	199.259	0.003	-0.009	270.09	0.012	0.017
100.398	0.032	0.020	199.27	0.029	-0.026	270.101	0.010	0.006
101.045	0.154	0.094	200.02	0.009	0.003	270.116	0.038	0.034
101.05	-0.005	-0.038	200.036	0.010	0.014	270.125	0.031	-0.043
101.087	0.116	0.165	200.043	0.007	0.010	270.132	0.013	0.055
101.093	-0.034	-0.081	200.05	-0.003	-0.043	270.138	0.008	-0.030
101.1	0.058	-0.103	200.056	0.027	0.016	270.145	0.029	0.015
101.124	-0.012	0.005	200.062	0.048	-0.054	270.15	0.007	-0.005
101.129	0.010	0.021	200.072	0.029	0.026	270.17	0.007	-0.009
101.148	-0.012	0.005	200.082	0.002	0.019	270.179	0.013	-0.016
101.153	0.106	0.085	200.092	0.021	0.022	271.072	0.011	0.016
101.171	-0.012	0.003	200.098	0.017	0.032	271.107	0.006	0.022
101.177	0.056	0.017	200.11	0.000	0.008	271.113	-0.007	-0.003
101.183	-0.001	-0.001	200.116	0.037	-0.066	271.121	0.024	0.043
101.195	-0.012	0.003	200.123	0.038	-0.041	271.128	0.005	-0.017

101.201	0.039	-0.055	200.133	0.049	0.048	271.134	-0.010	0.021
101.206	0.041	-0.024	200.139	0.025	-0.008	271.157	-0.002	-0.068
101.227	0.016	-0.011	200.151	0.048	0.023	271.162	0.034	0.009
102.04	0.042	-0.005	200.163	-0.003	-0.001	271.178	0.004	0.030
102.045	0.006	-0.026	200.188	0.030	0.035	271.187	0.043	0.091
102.074	0.078	0.063	200.196	0.002	-0.003	271.195	0.065	-0.032
102.103	-0.021	0.003	200.221	0.107	0.128	271.277	0.025	0.013
102.127	0.012	0.017	200.23	0.009	0.011	271.287	0.018	0.010
102.133	0.002	-0.003	200.254	0.010	0.003	271.307	0.024	0.070
102.15	0.051	0.038	201.064	-0.012	0.001	271.315	0.020	-0.028
102.156	0.017	0.027	201.07	0.042	-0.037	271.326	0.012	0.017
103.023	0.098	0.082	201.075	-0.016	-0.004	271.336	-0.002	-0.026
103.028	-0.004	-0.004	201.084	0.008	0.033	271.345	0.025	0.073
103.058	0.122	0.046	201.102	0.009	-0.010	271.354	0.010	0.006
103.121	-0.012	0.005	201.11	0.026	0.027	271.364	0.016	0.019
103.127	0.008	-0.009	201.117	0.047	0.064	271.373	0.027	-0.019
103.147	0.035	-0.019	201.127	0.040	-0.005	271.383	0.023	0.049
103.153	0.020	0.029	201.137	0.004	0.017	271.388	0.010	0.006
103.174	0.061	0.063	201.209	0.006	0.006	271.412	-0.002	-0.026
103.189	-0.011	-0.053	201.234	0.022	0.049	272.041	0.045	-0.006
103.213	-0.011	-0.053	201.242	-0.011	-0.053	272.048	0.016	0.019
104.023	0.009	-0.047	201.268	0.006	-0.019	272.098	-0.001	0.016
104.051	0.163	0.024	201.276	0.041	0.049	272.104	-0.009	-0.067
104.059	-0.027	0.002	201.284	0.028	0.030	272.114	0.090	0.069
104.082	0.013	-0.043	201.292	0.010	0.003	272.119	0.019	0.019
105.036	0.129	0.101	201.317	0.007	0.005	272.124	0.017	0.026
105.045	-0.019	-0.006	202.039	0.089	0.034	272.129	0.003	0.015
105.065	0.017	0.025	202.046	0.010	-0.027	272.137	0.005	-0.019
105.071	0.011	0.034	202.066	0.046	0.058	272.142	0.008	-0.037
105.077	0.007	0.025	202.078	-0.227	0.029	272.149	0.009	-0.010
105.082	-0.012	0.005	202.085	0.017	0.009	272.16	0.023	-0.024
105.113	0.009	0.009	202.091	0.095	0.058	272.165	0.010	-0.010
105.125	0.072	0.081	202.102	0.014	-0.013	272.179	-0.013	0.001
105.137	0.009	0.009	202.107	-0.001	-0.088	272.185	0.047	0.059
105.142	0.010	0.010	202.113	0.012	-0.020	272.195	0.031	0.037
105.149	0.021	0.019	202.118	0.008	-0.015	272.203	-0.006	0.000
106.019	0.006	-0.060	202.124	0.043	0.052	272.213	0.006	-0.004
106.025	0.076	0.070	202.136	0.051	-0.004	272.242	0.003	-0.009
106.03	0.029	0.033	202.157	0.017	0.014	272.252	-0.002	-0.026
106.036	0.002	-0.030	202.166	-0.006	-0.059	272.292	0.037	0.036
106.045	0.006	-0.027	202.173	0.017	0.027	272.3	-0.005	-0.038
106.064	0.083	0.029	202.19	-0.028	0.004	272.342	0.002	-0.029
106.069	0.051	0.048	202.207	0.017	0.027	272.383	-0.005	-0.038
106.112	0.020	0.022	202.224	0.000	-0.019	273.04	0.010	0.014
107.049	0.078	0.110	202.265	-0.038	0.010	273.047	0.014	-0.054
107.054	0.025	-0.061	202.282	-0.012	0.004	273.052	0.012	0.035
107.1	0.013	-0.012	202.29	-0.060	0.005	273.094	0.012	0.024

108.035	0.010	0.003	202.332	-0.016	0.000	273.102	0.012	0.021
108.044	-0.035	0.008	203.073	0.028	0.022	273.121	0.006	0.015
108.049	-0.042	-0.050	203.078	-0.114	-0.104	273.13	0.022	0.016
108.055	0.000	-0.007	203.084	0.057	0.171	273.137	0.050	0.052
108.061	0.012	0.027	203.095	0.029	-0.027	273.145	-0.016	-0.030
108.067	0.025	0.027	203.103	0.030	-0.053	273.157	0.005	0.007
108.073	0.056	0.071	203.116	0.003	-0.008	273.166	0.026	0.011
108.081	-0.010	-0.101	203.132	0.011	-0.004	273.171	0.010	0.006
108.086	0.009	0.011	203.141	-0.014	-0.090	273.181	-0.009	-0.006
108.111	0.017	0.027	203.149	0.063	0.069	273.21	-0.012	0.004
109.035	-0.011	-0.053	203.156	-0.016	0.000	273.224	0.001	-0.011
109.044	0.100	0.081	203.166	0.006	-0.002	273.229	0.017	0.025
109.052	-0.003	-0.044	203.182	-0.016	0.002	273.258	0.015	0.015
109.063	-0.011	-0.053	203.19	-0.021	-0.007	273.267	0.004	-0.034
109.068	0.012	0.017	203.198	-0.015	0.002	273.302	0.009	0.011
109.078	0.140	0.156	203.207	-0.012	0.005	274.059	0.025	-0.009
109.084	-0.009	-0.104	203.216	-0.002	-0.007	274.159	0.032	0.050
110.044	0.008	-0.006	203.224	-0.025	0.004	274.166	0.034	-0.007
110.058	-0.218	0.029	203.232	-0.002	-0.026	274.173	0.004	-0.019
110.064	0.124	0.090	203.241	-0.016	0.000	274.178	0.045	-0.040
110.071	0.034	0.021	203.249	0.021	-0.032	274.245	0.001	-0.007
110.114	0.021	0.020	203.257	0.020	0.021	274.276	0.004	-0.060
110.255	-0.223	0.031	203.265	-0.002	-0.026	274.285	-0.005	-0.038
111.019	0.019	0.007	203.282	0.016	0.018	274.314	0.002	-0.030
111.025	0.122	0.077	204.053	0.061	0.055	275.111	0.007	-0.004
111.059	-0.093	0.022	204.059	0.023	-0.019	275.126	-0.030	0.002
111.064	-0.110	0.012	204.065	0.007	-0.020	275.133	-0.018	0.020
111.093	0.205	-0.003	204.073	-0.036	0.004	275.141	-0.061	0.019
111.098	0.021	-0.020	204.082	0.022	0.037	275.148	-0.020	-0.039
111.126	0.007	-0.012	204.087	-0.067	0.020	275.156	0.052	-0.017
111.152	-0.022	0.000	204.093	-0.011	0.062	275.162	0.073	0.051
111.157	-0.016	0.012	204.099	-0.013	0.002	275.174	0.013	0.034
111.163	-0.124	0.014	204.104	0.114	-0.013	275.197	-0.015	0.003
111.176	-0.048	0.012	204.11	0.022	-0.050	276.059	0.048	0.027
111.185	-0.151	0.031	204.118	-0.002	-0.026	276.066	0.012	0.024
111.191	-0.047	0.000	204.126	-0.027	0.005	276.1	-0.012	0.005
111.213	-0.075	0.016	204.151	0.026	0.017	276.116	-0.002	-0.026
111.243	-0.059	0.012	204.181	0.019	0.020	276.122	0.006	-0.033
111.249	-0.042	0.002	204.218	0.040	0.045	276.134	0.078	0.125
112.052	0.034	0.019	204.243	0.017	0.027	276.143	0.016	-0.059
112.058	0.150	0.114	204.248	0.019	0.023	276.148	-0.040	0.009
112.063	-0.181	0.022	205.036	0.006	0.006	276.156	0.065	0.040
112.069	-0.050	0.011	205.061	0.005	-0.005	276.166	0.013	-0.019
112.076	0.007	-0.005	205.087	0.021	0.036	276.227	0.010	0.012
112.092	0.173	0.055	205.094	0.067	0.028	277.09	0.010	0.012
112.097	-0.005	-0.038	205.102	0.004	-0.008	277.103	0.003	-0.009
112.141	-0.007	-0.002	205.132	0.014	-0.019	277.115	0.006	-0.031

112.147	0.007	0.015	205.14	-0.007	-0.004	277.129	0.007	-0.002
112.153	0.015	0.013	205.148	0.004	-0.008	277.135	0.039	0.018
112.171	0.009	0.003	205.165	-0.014	0.002	277.143	-0.062	-0.017
113.041	0.158	0.095	205.173	0.003	-0.003	277.151	0.054	0.088
113.048	-0.012	0.005	205.223	0.010	0.003	277.156	-0.007	-0.005
113.072	0.057	0.049	205.249	0.022	0.033	277.161	-0.012	0.005
113.078	0.056	0.009	205.256	0.010	0.003	277.192	0.014	0.010
113.104	-0.018	-0.013	205.287	0.053	0.029	277.222	-0.002	-0.026
113.11	0.083	0.027	205.294	0.022	0.023	277.231	0.012	0.017
113.12	-0.011	-0.003	205.32	0.007	0.005	277.262	-0.002	-0.026
113.141	-0.023	0.015	206.065	0.019	0.060	277.27	0.054	0.022
113.147	0.012	-0.017	206.073	0.025	0.026	277.305	0.037	0.037
113.163	-0.028	0.003	206.079	-0.028	0.034	278.062	-0.011	-0.053
113.172	0.050	0.036	206.085	-0.088	0.006	278.114	0.019	0.036
113.191	0.006	-0.002	206.091	0.036	-0.030	278.122	0.059	0.047
113.197	0.026	0.009	206.096	0.013	-0.021	278.128	0.010	0.010
113.222	0.031	-0.010	206.106	0.011	0.031	278.134	0.027	0.009
113.228	0.002	-0.025	206.114	0.013	-0.011	278.14	0.008	-0.006
113.246	0.011	0.016	206.122	0.020	0.008	278.145	-0.002	-0.077
113.254	0.006	0.006	206.139	-0.013	0.001	278.151	0.012	0.035
114.031	0.013	0.008	206.172	0.011	0.016	278.157	0.006	0.006
114.071	0.129	0.060	206.211	0.043	0.050	278.173	0.017	0.027
114.127	-0.001	-0.015	207.045	0.018	0.016	278.178	0.010	0.006
114.14	-0.012	0.003	207.05	0.009	0.003	278.207	0.009	0.009
114.146	0.027	-0.018	207.101	-0.024	0.035	278.216	0.006	-0.002
114.152	0.005	-0.009	207.108	0.099	0.010	278.227	0.019	0.006
114.158	-0.028	0.010	207.115	0.003	-0.009	278.236	0.010	0.014
114.165	-0.009	-0.004	207.216	-0.006	-0.006	279.092	0.097	0.043
114.171	0.021	-0.007	207.229	-0.016	0.001	279.097	-0.006	-0.031
114.177	0.008	-0.041	207.25	0.000	0.001	279.146	-0.012	-0.025
114.19	0.005	-0.005	207.28	-0.007	-0.001	279.175	-0.013	0.001
114.199	0.015	-0.045	207.292	0.010	0.014	279.214	-0.013	0.001
114.227	0.045	0.040	208.053	0.010	0.006	279.234	-0.029	0.004
115.021	0.046	0.050	208.096	0.025	0.065	279.253	0.001	-0.007
115.056	0.041	-0.084	208.105	0.014	0.144	279.263	0.009	-0.001
115.062	0.127	0.137	208.112	-0.003	-0.101	279.273	-0.026	0.041
115.074	0.040	-0.051	208.124	0.086	-0.116	279.308	-0.025	-0.005
115.079	-0.023	0.005	208.133	0.004	-0.008	280.095	0.074	0.081
115.089	-0.052	-0.093	208.153	-0.015	0.002	280.101	-0.059	-0.002
115.143	-0.025	-0.008	208.195	-0.002	-0.026	280.106	0.039	-0.022
115.148	0.131	0.062	208.204	0.003	-0.009	280.117	-0.001	-0.045
115.168	-0.027	-0.007	208.221	0.013	-0.021	280.164	-0.006	0.009
115.174	0.143	0.059	208.229	0.023	0.008	280.174	0.022	-0.004
115.18	-0.013	0.002	208.242	0.056	0.032	280.179	0.015	0.012
115.193	0.005	-0.009	208.25	0.067	-0.053	280.199	0.007	-0.024
115.199	0.007	-0.072	208.263	0.009	0.011	280.222	0.008	-0.012
115.205	0.012	0.004	208.272	0.011	-0.001	281.109	-0.046	-0.024

115.224	-0.015	-0.061	208.28	0.028	-0.048	281.116	0.002	0.043
115.23	0.009	0.009	208.288	0.043	-0.055	281.124	-0.010	0.022
115.237	0.012	0.002	208.301	0.003	-0.002	281.129	0.049	0.068
115.25	0.040	0.021	208.314	0.005	-0.009	281.137	0.037	0.008
116.05	0.020	-0.080	208.322	0.007	-0.004	281.144	0.006	-0.047
116.084	0.131	0.030	209.063	0.005	-0.047	281.152	0.025	0.010
116.144	0.021	0.027	209.069	-0.012	0.004	281.158	0.009	-0.010
116.156	-0.015	0.003	209.082	-0.041	-0.012	281.164	0.002	-0.003
116.169	0.024	0.039	209.09	0.059	0.157	281.179	-0.001	-0.016
116.175	-0.006	-0.014	209.096	0.023	-0.023	281.243	0.027	0.024
116.181	-0.008	-0.005	209.104	0.027	-0.077	281.258	0.018	0.006
116.188	-0.013	0.000	209.11	0.003	-0.008	282.092	0.041	0.033
116.206	-0.015	0.003	209.119	0.013	-0.022	282.098	-0.055	-0.050
116.213	-0.008	-0.005	209.135	0.021	0.004	282.108	-0.078	0.088
116.242	0.050	0.019	209.143	-0.016	-0.082	282.113	-0.006	0.049
117.036	0.075	0.168	209.169	-0.016	-0.026	282.123	-0.005	-0.038
117.071	0.112	0.097	209.176	0.010	-0.004	282.129	0.012	0.024
117.076	-0.003	-0.044	209.21	0.003	-0.028	282.136	0.011	0.016
117.133	-0.016	0.000	209.249	0.007	0.010	282.158	0.010	0.003
117.156	-0.002	-0.026	209.995	0.012	0.017	282.167	0.009	0.003
117.162	0.021	0.002	210.006	0.007	0.010	282.181	0.017	0.016
117.167	0.122	0.085	210.012	0.012	0.017	282.187	0.010	0.010
117.177	0.007	-0.005	210.035	0.010	0.003	282.201	0.025	0.037
117.188	0.030	-0.002	210.041	0.009	0.011	282.216	-0.005	-0.038
117.193	0.146	0.085	210.051	0.021	0.000	283.089	0.026	-0.017
117.219	0.086	0.081	210.058	0.024	0.003	283.094	0.014	0.027
117.225	0.006	0.006	210.068	0.040	0.045	283.1	0.003	-0.021
117.237	-0.011	-0.053	210.077	0.045	0.030	283.106	-0.006	0.014
117.244	0.012	0.017	210.085	0.008	0.003	283.118	-0.046	0.009
118.098	0.092	-0.072	210.092	-0.002	-0.026	283.125	-0.012	0.005
118.184	-0.016	0.000	210.098	0.009	-0.004	283.132	-0.017	0.076
118.261	0.007	-0.009	210.104	0.002	-0.030	283.138	0.018	0.034
118.28	-0.026	0.002	210.11	0.020	0.042	283.148	-0.011	-0.056
118.386	0.017	-0.008	210.126	0.021	0.011	283.153	0.042	0.041
118.411	0.092	-0.085	210.143	0.085	0.107	283.159	0.007	0.005
118.416	0.008	0.035	210.151	0.038	0.045	283.172	0.009	-0.042
118.461	0.094	-0.068	210.16	0.006	-0.001	283.177	0.009	0.002
118.487	0.052	-0.050	210.177	0.025	0.024	283.186	0.006	0.010
118.672	0.005	-0.007	210.185	0.019	-0.004	283.195	0.022	0.026
118.825	0.004	-0.008	210.193	-0.002	-0.026	283.211	-0.013	0.011
118.875	0.011	-0.021	210.211	0.009	0.011	283.216	-0.013	0.001
119.01	0.009	0.011	210.224	-0.002	-0.026	283.221	-0.015	0.010
119.047	-0.054	-0.013	211.003	0.019	0.021	283.23	0.022	0.043
119.054	-0.015	0.002	211.019	0.002	-0.030	283.259	-0.002	0.016
119.099	0.088	-0.057	211.027	0.006	0.006	283.27	-0.006	-0.048
119.192	-0.016	0.000	211.04	-0.012	0.003	284.081	0.012	0.024
119.199	-0.038	0.034	211.053	0.014	0.039	284.1	0.027	0.015

119.205	0.106	-0.051	211.06	0.012	0.004	284.113	0.046	0.073
119.224	-0.039	0.008	211.068	0.008	-0.017	284.119	0.006	-0.002
119.23	0.100	-0.051	211.074	0.003	0.011	284.132	0.005	-0.057
119.25	-0.015	0.003	211.084	0.015	-0.036	284.143	0.014	-0.030
119.256	0.116	-0.018	211.091	0.036	0.054	284.152	0.035	0.040
119.275	-0.016	0.001	211.097	-0.025	0.004	284.16	0.003	-0.009
119.281	-0.016	0.000	211.102	-0.068	0.100	284.174	0.043	0.058
119.287	0.044	-0.031	211.112	0.026	-0.054	284.182	0.016	-0.001
119.294	-0.021	0.000	211.117	0.017	-0.013	284.192	0.042	0.055
119.31	0.016	0.049	211.137	0.003	-0.009	284.217	0.007	0.010
119.316	-0.012	0.005	211.146	-0.004	-0.010	284.227	0.020	0.020
119.339	0.082	0.027	211.154	0.003	-0.002	284.256	-0.006	-0.059
119.348	0.015	-0.022	211.163	-0.014	0.002	284.262	0.010	0.006
119.362	0.007	0.005	211.172	0.012	0.017	284.275	0.012	0.017
119.367	0.051	-0.020	211.189	0.040	0.042	284.305	0.007	0.005
119.397	0.021	-0.030	211.196	0.004	0.006	285.104	0.015	0.004
119.403	0.021	0.017	211.231	0.046	0.016	285.115	0.029	0.039
119.412	0.081	-0.022	211.239	0.045	0.046	285.124	-0.011	-0.029
119.422	0.009	-0.054	211.265	0.038	0.036	285.133	-0.005	-0.029
119.435	0.006	-0.007	211.274	0.023	-0.047	285.14	0.023	0.014
119.441	0.031	0.007	212.024	-0.002	-0.026	285.147	0.005	0.031
119.983	0.024	-0.015	212.029	0.002	-0.030	285.154	0.025	-0.026
119.992	0.085	0.057	212.044	0.004	-0.034	285.165	-0.001	0.065
120.041	0.131	-0.077	212.054	0.013	0.005	285.172	0.005	0.042
120.047	0.042	0.078	212.066	0.006	-0.014	285.18	-0.010	0.010
120.076	0.025	-0.044	212.077	0.028	0.020	285.188	0.010	-0.023
120.082	0.007	0.005	212.082	0.036	0.024	285.195	0.031	-0.002
120.093	0.075	0.073	212.091	0.047	0.047	285.204	0.036	-0.028
120.099	0.006	-0.050	212.1	0.013	-0.032	286.007	0.006	-0.002
120.104	0.031	-0.049	212.105	-0.016	0.000	286.111	0.004	0.009
120.156	0.033	0.037	212.114	-0.015	0.007	286.117	0.032	0.031
120.162	0.024	-0.019	212.134	0.026	-0.030	286.123	0.000	0.009
120.188	0.001	-0.007	212.143	0.079	-0.025	286.129	0.045	0.039
121.062	0.078	-0.056	212.151	0.019	0.029	286.136	0.018	0.022
121.253	0.010	-0.015	212.159	-0.017	-0.053	286.141	0.003	-0.003
121.279	-0.011	-0.051	212.19	-0.002	-0.026	286.148	-0.003	0.011
121.301	0.020	-0.094	213.027	0.052	0.056	286.156	0.006	-0.019
121.33	-0.023	-0.047	213.046	0.009	0.011	286.162	0.019	-0.050
121.335	0.127	-0.012	213.056	0.012	0.024	286.169	0.011	-0.024
121.343	0.006	0.006	213.065	0.018	0.030	286.175	0.013	-0.011
121.35	0.019	-0.002	213.082	-0.199	0.026	286.18	0.019	-0.030
121.362	0.072	-0.075	213.095	0.020	0.016	286.195	0.010	0.006
121.368	-0.006	-0.003	213.105	0.005	-0.072	286.204	0.025	0.011
121.482	0.010	0.014	213.115	0.015	0.009	286.214	-0.013	0.001
122.018	0.012	0.017	213.124	0.051	0.025	286.244	0.020	0.041
122.024	0.006	0.032	213.133	0.089	0.111	287.14	0.020	0.012
122.066	0.086	-0.039	213.142	0.067	-0.095	287.148	0.086	0.007

122.092	-0.016	0.001	213.15	0.018	-0.015	287.156	0.015	-0.041
122.15	0.004	-0.008	213.167	0.023	0.008	287.251	-0.001	0.018
122.157	-0.013	0.001	213.223	0.010	0.008	287.265	0.003	-0.031
122.163	0.043	0.001	213.253	-0.013	0.000	287.35	0.012	0.024
122.169	0.036	0.030	213.261	-0.037	0.013	288.041	0.019	0.016
122.176	0.016	-0.004	214.033	0.018	0.018	288.133	0.041	-0.083
122.189	0.025	-0.002	214.04	0.106	0.069	288.141	0.059	0.144
122.195	0.022	0.047	214.048	-0.036	-0.003	288.148	-0.007	0.010
123.02	0.025	-0.011	214.065	-0.027	0.002	288.157	0.017	-0.071
123.026	0.047	0.004	214.074	-0.013	-0.004	288.166	-0.003	-0.010
123.058	0.010	0.003	214.083	-0.046	-0.027	288.183	0.007	-0.008
123.093	0.052	-0.020	214.092	-0.061	-0.003	288.19	0.011	-0.009
123.181	0.018	0.037	214.105	0.047	0.045	288.214	0.086	0.017
123.207	-0.016	-0.008	214.113	0.089	0.024	288.22	0.005	-0.014
123.213	0.022	0.006	214.118	0.020	-0.039	288.229	0.018	-0.038
124.068	0.036	0.023	214.126	0.031	-0.036	288.249	0.006	-0.018
124.074	0.070	-0.012	214.143	0.006	-0.007	288.258	0.003	-0.008
124.083	0.027	-0.016	214.152	-0.029	0.027	288.269	0.011	0.016
124.092	-0.016	-0.009	214.16	0.004	0.011	288.288	0.008	-0.017
124.099	0.010	-0.005	214.168	-0.024	0.006	288.298	0.028	-0.029
124.124	0.002	-0.030	214.177	0.013	-0.016	288.308	0.010	0.012
125.033	0.068	0.030	214.185	-0.024	0.006	288.318	0.009	0.003
125.04	-0.002	-0.026	214.194	-0.009	0.001	288.327	0.012	0.017
125.063	0.007	0.014	214.202	-0.026	0.011	288.338	-0.001	-0.037
125.072	0.127	0.043	214.211	0.007	-0.005	289.134	-0.003	-0.045
125.079	-0.002	-0.026	214.229	0.003	-0.002	289.143	0.037	0.027
125.105	-0.002	-0.014	214.237	0.026	0.028	289.15	0.056	0.002
125.122	-0.013	0.001	214.246	0.079	0.008	289.158	-0.045	0.024
125.138	0.021	0.045	214.254	0.006	0.019	289.163	0.023	0.036
125.144	0.006	0.006	214.263	0.010	0.010	289.173	0.003	-0.008
126.027	-0.011	-0.053	214.28	0.007	0.005	289.214	0.012	0.035
126.034	0.026	0.030	214.285	0.012	0.024	289.234	-0.013	0.001
126.053	-0.222	0.034	215.04	0.011	0.004	289.254	0.074	0.055
126.067	0.140	0.084	215.048	0.017	-0.005	289.274	0.010	0.010
126.073	0.007	-0.005	215.055	0.012	-0.034	289.284	0.007	0.010
126.102	-0.003	0.008	215.096	0.032	0.039	289.294	0.059	0.052
126.109	-0.009	-0.080	215.105	0.053	0.133	289.299	0.000	-0.051
127.009	0.010	-0.007	215.113	-0.002	-0.056	289.334	0.010	0.010
127.015	0.027	0.049	215.121	-0.007	-0.063	289.342	0.012	0.017
127.02	-0.005	-0.038	215.146	0.006	-0.007	289.375	0.007	0.005
127.048	0.051	0.065	215.155	-0.010	-0.003	289.388	0.009	0.009
127.055	0.012	0.009	215.173	0.005	-0.009	290.056	0.017	0.027
127.085	0.134	0.070	215.18	0.012	0.002	290.066	0.000	-0.035
127.09	-0.017	-0.004	215.212	0.003	-0.009	290.141	0.029	0.034
127.117	0.090	0.057	215.22	-0.005	-0.001	290.146	0.009	0.011
127.124	-0.016	-0.013	215.25	0.006	-0.002	290.158	0.027	0.026
127.143	0.003	-0.008	216.029	0.010	0.006	290.167	0.011	-0.048

127.156	-0.008	-0.006	216.037	-0.001	-0.044	290.172	0.045	0.044
127.17	-0.026	0.003	216.046	0.039	0.035	290.181	0.003	-0.017
127.177	-0.016	0.000	216.052	0.007	0.005	290.19	0.059	-0.075
127.183	0.021	-0.002	216.06	0.021	0.018	290.196	0.019	-0.029
127.189	0.026	0.029	216.067	0.010	0.006	290.21	0.012	0.017
127.196	-0.010	-0.002	216.076	0.011	-0.022	290.241	0.010	0.014
127.21	0.003	-0.008	216.084	0.011	0.016	290.256	0.003	-0.009
127.216	0.029	0.037	216.09	0.021	0.023	290.296	-0.002	-0.026
127.25	0.040	0.074	216.095	0.009	0.009	291.15	-0.014	0.004
128.041	0.000	-0.033	216.106	0.003	-0.051	291.159	0.056	-0.011
128.047	0.009	0.011	216.111	0.020	0.012	291.168	0.009	0.032
128.082	0.131	0.001	216.118	0.014	0.017	291.176	-0.001	0.039
128.135	-0.015	0.003	216.125	0.064	0.078	291.181	0.003	-0.018
128.149	-0.014	0.000	216.136	0.029	-0.062	291.188	0.028	-0.041
128.155	-0.025	0.001	216.148	0.038	0.056	291.193	0.031	-0.003
128.162	0.044	0.060	216.157	-0.015	0.002	291.203	0.007	-0.014
128.169	0.005	-0.009	216.17	0.034	0.006	291.259	-0.012	0.003
128.182	0.001	-0.016	216.178	0.010	0.003	291.288	0.002	-0.042
128.189	0.054	0.025	216.204	0.022	0.012	291.344	0.012	0.017
128.195	0.005	-0.009	216.217	-0.005	-0.038	292.064	-0.002	-0.026
128.202	0.010	0.014	217.054	0.003	-0.014	292.122	0.009	0.003
128.219	0.009	0.004	217.06	0.009	-0.008	292.139	0.036	0.009
129.03	-0.015	-0.005	217.067	0.018	-0.008	292.147	0.044	0.059
129.039	-0.013	0.002	217.126	0.106	-0.073	292.152	-0.002	-0.026
129.06	-0.026	0.002	217.261	-0.068	0.007	292.157	0.042	0.026
129.066	0.108	0.112	217.273	0.130	-0.041	292.163	0.013	0.006
129.072	-0.017	-0.001	217.283	-0.015	0.003	292.17	0.012	-0.008
129.081	0.034	0.054	217.29	0.003	-0.009	292.178	0.015	-0.012
129.088	-0.025	-0.064	217.298	-0.066	0.012	293.135	0.007	0.005
129.095	0.037	-0.062	217.307	0.103	-0.045	293.146	0.011	0.001
129.101	0.108	0.091	217.334	-0.048	0.009	293.155	0.007	0.063
129.158	-0.014	0.004	217.342	0.133	-0.080	293.161	-0.002	0.030
129.164	0.002	-0.003	217.377	-0.011	-0.004	293.211	0.008	0.003
129.191	0.044	0.049	217.385	0.111	-0.084	293.221	0.007	0.012
129.198	0.008	-0.004	217.393	0.009	0.009	293.231	-0.013	0.001
129.225	0.129	0.092	217.411	0.016	-0.019	293.266	0.018	0.023
129.231	0.006	-0.002	217.416	0.039	-0.006	294.065	0.003	-0.009
129.245	0.023	0.023	217.452	0.035	-0.044	294.078	0.008	-0.015
130.063	0.171	0.049	217.459	0.005	-0.009	294.098	0.046	0.055
130.068	-0.009	-0.013	217.486	0.025	-0.025	294.105	0.017	0.013
130.08	-0.015	0.003	217.493	0.025	-0.031	294.113	0.018	0.030
130.092	0.047	0.034	217.498	0.013	-0.018	294.122	-0.005	-0.078
130.098	0.062	-0.016	217.532	0.016	-0.022	294.13	0.061	0.094
130.104	0.019	-0.022	217.546	0.038	-0.044	294.149	0.002	-0.027
130.125	0.007	-0.008	217.551	0.020	0.007	294.159	0.010	0.010
130.132	0.005	-0.005	217.558	0.014	-0.018	294.175	0.010	-0.008
130.138	0.008	-0.028	217.567	0.021	-0.029	294.184	0.017	0.012

130.158	0.020	0.012	217.584	0.020	-0.025	294.198	0.028	0.042
130.164	0.028	0.009	217.592	0.006	-0.011	294.205	0.019	0.028
131.066	0.088	0.157	217.6	0.005	-0.009	294.214	0.010	0.012
131.072	-0.021	-0.092	217.623	0.006	-0.011	295.116	0.010	0.012
131.136	0.002	-0.003	218.027	0.020	0.018	295.125	-0.015	0.009
131.142	-0.006	-0.071	218.035	0.014	-0.009	295.133	0.034	0.001
131.149	0.020	0.035	218.045	0.007	-0.004	295.14	-0.007	0.033
131.162	0.010	-0.006	218.053	0.020	-0.015	295.147	-0.002	-0.050
131.169	-0.016	-0.054	218.062	-0.008	0.010	295.152	0.039	0.046
131.176	0.010	0.037	218.073	-0.041	0.009	295.199	-0.015	0.003
131.182	0.010	-0.013	218.081	-0.016	0.000	295.23	-0.011	-0.053
131.189	0.002	-0.003	218.119	0.014	0.028	295.24	-0.005	-0.038
131.196	-0.029	0.003	218.126	0.074	-0.015	295.261	0.012	0.017
131.209	0.012	0.017	218.134	0.033	-0.057	296.11	0.013	0.015
131.253	0.010	0.010	219.042	-0.012	0.005	296.119	0.083	0.037
132.04	0.039	0.013	219.052	0.003	-0.009	296.129	0.032	-0.042
132.067	0.022	0.000	219.061	0.005	-0.005	296.137	0.000	0.025
132.072	0.107	0.029	219.072	0.055	0.017	296.143	0.006	-0.007
132.078	0.001	0.002	219.078	0.018	0.027	296.177	0.007	0.010
132.142	0.012	0.017	219.09	0.007	-0.011	296.182	-0.002	-0.026
133.031	0.014	0.039	219.103	-0.007	0.018	296.222	0.012	0.017
133.058	0.114	0.075	219.115	-0.011	0.056	297.008	-0.012	0.005
133.065	0.007	-0.028	219.125	0.075	-0.048	297.014	0.019	-0.007
133.074	0.021	-0.031	219.133	0.038	0.032	297.076	0.000	-0.049
133.08	-0.016	0.018	219.141	0.009	0.003	297.084	-0.075	-0.003
133.087	0.015	0.015	219.15	-0.012	0.004	297.091	-0.143	0.053
133.093	0.015	0.027	219.194	0.005	0.016	297.096	0.029	0.048
133.1	-0.014	0.002	219.202	-0.004	-0.014	297.103	0.038	0.017
133.127	-0.014	0.002	219.21	0.012	-0.005	297.113	0.041	0.022
133.147	-0.012	0.003	219.219	-0.012	0.005	297.136	0.012	0.017
133.154	0.016	0.012	219.228	0.007	-0.009	297.155	0.003	-0.009
133.161	0.006	0.006	219.237	-0.011	-0.053	297.167	-0.033	0.011
133.167	0.033	-0.037	219.246	0.023	0.059	297.176	-0.012	-0.023
133.174	0.011	-0.014	219.258	0.007	-0.009	297.186	-0.017	0.050
133.181	0.012	0.017	219.271	-0.011	-0.053	297.195	0.050	0.035
133.198	0.022	0.037	219.288	0.004	-0.027	297.2	-0.025	0.022
134.048	0.102	0.070	220.041	0.009	0.003	297.206	0.006	0.005
134.055	0.038	0.033	220.048	0.104	0.089	297.215	0.019	0.022
134.072	0.043	0.006	220.053	-0.006	-0.038	297.235	0.039	0.054
134.079	-0.039	-0.002	220.058	0.017	0.017	297.245	0.002	0.019
134.085	0.059	-0.039	220.067	0.007	0.010	297.255	0.012	0.024
134.092	0.056	0.055	220.079	0.017	0.027	297.266	0.009	0.011
134.121	0.015	0.011	220.087	0.010	0.003	297.276	0.054	0.029
134.149	0.026	0.023	220.126	-0.133	0.014	297.286	0.007	0.029
134.156	0.010	0.010	220.136	0.087	-0.054	297.295	0.012	0.024
134.163	0.021	0.018	220.235	-0.013	0.000	298.086	-0.015	0.002
134.169	0.024	0.039	220.252	0.010	0.003	298.092	-0.067	-0.026

134.196	0.014	0.039	220.27	0.014	-0.034	298.1	-0.027	0.004
135.07	0.086	-0.015	220.278	0.013	0.008	298.112	0.010	0.010
135.075	0.007	-0.009	220.287	0.044	-0.009	298.123	0.032	0.036
135.134	-0.023	-0.003	220.3	0.070	-0.063	298.128	0.019	0.012
135.161	-0.008	-0.005	220.305	0.010	0.006	298.134	0.021	0.030
135.181	0.010	0.012	220.313	0.017	0.007	298.143	-0.011	-0.053
135.993	0.132	0.042	220.322	0.047	0.077	298.158	0.019	0.022
136.027	-0.012	0.003	220.331	0.029	0.020	298.176	0.002	-0.030
136.041	-0.016	0.001	220.339	0.010	-0.032	298.185	-0.005	-0.038
136.062	0.029	0.056	220.347	0.011	0.016	298.245	0.010	0.014
136.068	0.019	0.076	220.382	0.005	-0.009	299.054	0.019	0.003
136.075	0.017	0.027	220.387	0.003	-0.002	299.07	-0.004	-0.041
136.089	-0.010	-0.026	221.085	-0.014	0.002	299.088	-0.013	0.001
136.094	-0.010	0.001	221.094	0.068	0.047	299.1	0.011	0.032
136.103	0.144	-0.034	221.101	0.010	0.051	299.138	-0.002	-0.026
136.109	0.005	-0.001	221.112	-0.006	0.019	299.183	-0.005	-0.038
136.123	-0.016	0.001	221.119	0.003	-0.031	299.196	-0.020	-0.042
136.13	0.003	0.026	221.125	0.018	-0.022	299.205	0.019	0.053
136.15	-0.016	0.001	221.134	0.021	-0.044	299.213	0.057	0.089
136.157	0.002	0.027	221.14	0.050	-0.014	299.222	0.056	-0.024
136.171	-0.012	0.005	221.148	-0.003	-0.009	299.309	0.021	0.038
136.184	0.043	0.084	221.156	-0.069	0.014	300.065	0.007	0.010
136.191	0.007	-0.009	221.166	-0.017	-0.001	300.106	0.019	0.021
136.198	0.007	-0.005	221.192	-0.046	0.003	300.115	0.003	-0.009
136.212	0.128	0.081	221.218	-0.013	0.001	300.122	0.010	0.012
136.218	0.037	-0.062	221.227	0.001	-0.045	300.13	0.026	0.008
136.239	0.027	0.005	221.235	0.004	0.004	300.138	0.007	0.010
137	0.050	0.058	221.244	-0.006	-0.026	300.166	-0.002	-0.044
137.007	-0.002	-0.050	221.262	0.051	0.017	300.175	0.020	-0.001
137.022	0.088	0.062	221.27	-0.002	-0.080	300.186	0.011	-0.005
137.027	-0.023	-0.003	221.297	0.009	0.003	300.191	0.020	0.033
137.033	0.069	0.048	221.304	-0.011	-0.053	300.197	0.017	0.018
137.041	0.004	-0.008	222.055	0.011	0.016	300.206	0.022	0.032
137.061	-0.027	-0.082	222.061	0.015	0.035	300.213	0.046	0.007
137.067	0.116	0.098	222.069	0.008	-0.004	300.235	0.019	0.028
137.09	0.000	-0.012	222.074	-0.012	0.004	300.251	0.002	-0.030
137.096	-0.008	-0.034	222.082	-0.006	-0.031	301.112	0.009	0.003
137.101	0.106	0.085	222.09	0.037	0.057	301.141	0.006	-0.061
137.107	0.006	-0.022	222.097	0.033	-0.025	301.149	0.035	0.052
137.171	0.004	-0.024	222.105	0.017	0.067	301.154	0.015	0.007
137.984	0.010	-0.044	222.112	-0.013	0.017	301.16	0.014	0.051
137.991	0.069	0.098	222.118	0.003	-0.003	301.165	0.034	0.039
137.997	0.034	0.024	222.134	0.001	-0.009	301.172	0.003	-0.002
138.04	-0.016	0.001	222.141	0.015	-0.011	301.179	-0.010	-0.004
138.083	0.085	-0.095	222.148	0.010	-0.020	301.191	0.009	0.003
138.194	0.012	0.045	222.155	0.065	0.061	301.256	0.017	0.027
138.2	0.007	0.010	222.164	-0.077	-0.040	302.141	0.007	0.005

138.225	-0.016	0.001	222.261	-0.011	-0.053	302.148	0.010	0.006
138.26	0.006	0.006	222.277	-0.005	-0.038	302.156	0.007	0.010
138.393	0.004	-0.014	223.042	0.191	-0.016	302.162	0.016	0.029
138.407	0.007	-0.045	223.048	-0.045	0.009	302.169	0.056	-0.051
138.438	0.013	-0.017	223.066	-0.048	0.014	302.174	0.033	0.064
139.012	0.034	0.032	223.074	-0.062	0.001	302.184	-0.040	-0.004
139.045	0.037	0.026	223.086	-0.015	0.022	302.197	0.010	-0.014
139.083	0.070	-0.051	223.095	0.046	0.049	302.234	0.012	0.035
139.117	0.020	0.028	223.103	0.020	0.029	302.254	0.010	0.014
139.145	-0.027	0.002	223.112	0.013	-0.062	302.259	0.010	0.012
139.151	-0.015	0.007	223.12	0.003	-0.008	302.268	0.012	0.017
139.172	0.019	0.010	223.138	-0.013	0.002	302.274	0.014	-0.018
139.179	-0.028	0.007	223.147	0.002	-0.003	302.311	0.017	0.027
139.186	-0.025	0.009	223.155	0.007	-0.016	303.121	-0.011	-0.001
139.2	0.046	-0.005	223.19	0.004	-0.024	303.138	0.030	0.043
139.207	0.103	0.004	223.225	-0.012	-0.007	303.148	0.073	0.047
139.214	-0.014	0.004	224.045	0.005	-0.036	303.154	-0.035	-0.024
139.222	0.010	-0.023	224.051	0.028	-0.032	303.164	-0.043	0.003
139.228	0.033	0.018	224.059	0.092	0.075	303.17	0.014	-0.014
139.234	0.059	-0.041	224.064	0.048	0.067	303.175	0.007	-0.004
139.256	0.029	-0.017	224.073	-0.026	0.002	303.181	0.007	-0.005
139.262	0.078	-0.013	224.078	-0.066	0.007	303.262	0.010	0.012
140.048	0.017	0.027	224.085	-0.047	0.014	304.127	-0.012	0.005
140.069	0.010	0.006	224.093	-0.026	-0.080	304.14	-0.002	-0.026
140.08	0.078	0.122	224.101	0.002	-0.017	304.147	0.041	0.051
140.086	0.053	-0.129	224.111	-0.019	0.004	304.158	0.043	-0.058
140.092	0.005	-0.014	224.119	0.044	0.020	304.164	0.021	0.071
140.12	0.117	0.102	224.127	0.078	0.037	304.17	0.028	0.028
140.127	0.004	-0.008	224.137	0.035	0.016	304.179	0.076	-0.086
141.02	0.018	0.023	224.145	0.006	-0.002	304.231	0.003	-0.009
141.027	0.003	-0.058	224.154	0.005	-0.005	304.269	0.012	0.024
141.055	-0.013	0.000	224.159	-0.040	0.004	305.125	0.022	0.020
141.096	0.046	-0.021	224.176	-0.030	0.004	305.13	0.018	-0.025
141.162	-0.015	0.002	224.188	0.005	-0.005	305.138	0.004	-0.038
141.19	-0.004	-0.024	224.198	0.013	-0.016	305.144	0.015	0.026
141.197	-0.057	0.003	224.215	0.022	0.037	305.155	0.004	0.064
141.204	0.012	0.027	224.224	0.019	0.029	305.162	0.017	-0.011
141.211	0.006	0.006	224.232	0.019	-0.010	305.172	0.029	-0.036
141.218	0.030	-0.035	224.241	-0.010	-0.070	305.177	0.007	-0.009
141.225	-0.030	-0.052	224.25	0.017	0.027	305.186	0.006	-0.007
141.232	-0.024	0.018	224.259	0.021	0.035	305.213	0.012	0.035
141.238	0.006	0.006	224.268	0.008	-0.040	305.234	0.002	-0.030
141.266	-0.020	0.020	224.303	0.009	0.003	306.079	-0.012	0.003
142.051	0.011	-0.030	225.003	0.043	0.026	306.115	-0.013	0.001
142.059	0.098	0.098	225.014	0.009	0.009	306.125	-0.012	0.004
142.065	-0.012	0.004	225.07	0.023	0.035	306.132	-0.007	0.014
142.093	0.014	-0.067	225.075	0.011	0.013	306.14	0.021	0.008

142.099	0.055	0.044	225.085	-0.051	0.002	306.146	0.017	0.010
142.124	-0.006	0.007	225.093	-0.003	0.027	306.153	0.027	0.008
142.13	0.003	0.017	225.099	-0.048	-0.011	306.163	0.040	0.008
142.158	0.005	-0.009	225.104	0.069	0.025	306.176	0.015	0.029
142.187	0.002	-0.003	225.113	0.013	-0.019	306.182	-0.007	-0.009
143.009	0.012	0.017	225.12	0.030	0.035	306.196	0.006	-0.007
143.075	0.146	0.111	225.129	0.013	0.001	306.227	0.006	-0.002
143.08	-0.011	-0.014	225.137	-0.022	0.005	306.233	0.009	0.009
143.109	0.023	0.022	225.145	0.009	-0.009	307.123	0.003	0.012
143.148	-0.012	0.005	225.155	0.017	0.000	307.132	0.020	0.030
143.179	0.006	-0.002	225.163	-0.009	0.025	307.139	0.017	-0.002
143.207	0.035	0.037	225.172	-0.015	-0.054	307.145	-0.027	0.004
143.214	0.107	0.078	225.181	0.008	-0.004	307.153	0.045	-0.025
143.221	0.009	0.009	225.19	-0.009	0.009	307.16	0.018	0.024
143.235	0.012	-0.003	225.198	-0.005	0.001	307.168	0.020	0.040
143.243	0.046	0.076	225.233	0.003	-0.009	307.191	-0.035	0.012
143.264	0.050	0.040	225.26	0.017	0.027	307.262	0.009	0.011
143.271	0.039	0.040	226.048	0.010	0.003	307.273	0.007	0.010
143.299	0.019	0.026	226.053	0.010	0.014	308.034	0.006	-0.002
143.33	0.010	0.012	226.062	0.062	0.038	308.1	0.012	0.035
144.026	0.002	-0.030	226.07	0.022	-0.005	308.121	-0.002	-0.026
144.033	-0.003	-0.039	226.079	0.014	-0.014	308.138	0.010	0.014
144.039	0.007	-0.018	226.084	0.026	0.062	308.148	0.031	-0.004
144.075	0.140	0.055	226.095	0.010	0.014	308.154	0.031	0.000
144.081	0.005	-0.009	226.105	0.010	0.003	308.16	0.059	0.088
144.106	0.069	0.061	226.114	0.023	0.022	308.168	0.004	-0.049
144.112	0.054	-0.018	226.126	0.034	0.005	308.174	0.008	-0.032
144.134	0.005	-0.009	226.139	0.021	0.023	308.181	0.049	-0.004
144.141	0.026	0.002	226.157	0.039	-0.054	308.189	0.006	-0.007
144.148	0.006	-0.011	226.174	0.012	0.017	308.208	-0.002	-0.026
144.169	0.020	0.009	226.192	-0.001	-0.069	308.249	-0.011	-0.053
144.175	0.021	0.013	226.197	0.041	0.012	308.259	0.010	0.003
144.183	0.021	0.021	226.219	0.010	0.014	309.063	0.010	0.012
144.197	0.017	0.015	226.236	0.010	0.010	309.141	0.018	-0.002
144.208	0.025	0.022	227.044	0.006	0.006	309.152	-0.005	0.021
145.051	0.023	0.008	227.052	0.022	0.023	309.159	0.000	0.001
145.061	-0.016	0.000	227.06	0.003	-0.009	309.166	0.007	0.061
145.089	0.119	0.138	227.072	-0.011	-0.053	309.173	0.001	0.014
145.095	-0.004	-0.121	227.079	0.007	0.053	309.227	0.017	0.027
145.161	-0.015	0.007	227.085	-0.064	-0.008	309.268	0.005	-0.027
145.169	0.018	-0.007	227.091	-0.072	0.012	310.062	0.006	-0.002
145.176	-0.008	-0.003	227.097	0.006	0.025	310.067	0.018	0.016
145.183	0.018	-0.008	227.105	0.041	0.032	310.074	-0.007	-0.069
145.19	0.023	0.023	227.112	0.022	0.015	310.085	0.020	0.025
145.197	0.051	0.005	227.122	0.028	0.023	310.106	0.007	-0.020
145.204	0.010	-0.008	227.134	-0.006	-0.043	310.116	0.035	0.033
145.211	0.034	0.012	227.141	0.020	0.025	310.124	0.006	0.006

145.219	0.009	-0.018	227.149	0.024	-0.028	310.133	0.025	0.030
145.226	0.030	-0.046	227.158	0.014	-0.066	310.143	0.027	0.044
145.232	0.029	0.019	227.171	0.029	0.065	310.149	-0.030	-0.042
145.239	0.120	0.124	227.18	0.003	0.006	310.16	0.000	0.015
145.247	0.006	-0.011	227.255	0.009	0.003	310.176	0.029	0.029
145.257	-0.002	-0.026	228.007	0.025	0.024	311.073	0.010	0.010
146.05	0.130	0.048	228.012	0.058	0.055	311.092	0.019	0.024
146.059	0.004	0.006	228.02	-0.011	-0.053	311.097	0.015	0.015
146.075	0.023	0.017	228.026	0.014	0.017	311.107	0.021	0.003
146.084	0.019	-0.044	228.035	0.007	-0.033	311.117	0.074	0.096
146.09	0.124	0.050	228.045	0.025	0.000	311.127	-0.017	-0.079
146.116	0.008	0.023	228.057	0.015	0.059	311.135	0.008	0.023
146.122	-0.007	-0.044	228.079	0.020	0.028	311.156	0.014	-0.026
146.136	0.003	-0.009	228.084	0.010	0.006	311.166	0.018	0.016
146.144	0.032	0.003	228.092	0.019	0.013	311.186	0.010	0.006
146.151	0.009	0.009	228.097	0.026	0.015	311.206	0.058	0.097
146.158	0.010	-0.022	228.105	0.007	-0.034	311.222	0.012	0.017
146.173	0.007	-0.005	228.11	0.018	0.042	311.227	0.010	0.006
146.179	0.009	0.009	228.118	0.026	0.028	311.238	0.003	-0.009
147.042	-0.026	0.002	228.125	0.001	-0.006	311.248	0.022	0.048
147.057	0.109	0.092	228.134	0.020	0.017	311.258	-0.011	-0.053
147.063	0.016	-0.008	228.143	0.032	-0.024	312.116	0.010	-0.053
147.071	-0.061	-0.002	228.152	0.014	-0.014	312.127	0.037	0.025
147.081	0.018	-0.014	228.161	-0.008	-0.031	312.133	0.014	-0.015
147.087	0.011	-0.021	228.169	0.028	0.061	312.138	0.028	0.036
147.092	0.003	-0.008	228.178	0.031	-0.030	312.149	0.012	0.017
147.101	-0.028	-0.004	228.188	0.006	-0.004	312.155	0.026	0.035
147.108	0.032	-0.048	228.196	-0.005	-0.038	312.205	0.009	0.009
147.179	0.007	0.005	228.204	0.010	0.014	312.21	0.010	0.014
148.062	0.086	0.011	228.231	0.014	0.039	313.067	0.029	0.025
148.067	0.009	0.025	228.24	0.009	0.009	313.075	0.043	0.053
148.097	0.007	-0.009	229.043	0.020	-0.033	313.082	0.011	0.004
148.133	0.029	-0.091	229.048	0.012	0.024	313.096	0.011	-0.084
148.154	0.012	0.017	229.064	-0.015	0.007	313.104	0.020	0.045
148.161	0.012	0.035	229.07	-0.013	0.001	313.111	0.007	0.010
148.19	0.016	0.030	229.076	0.011	0.012	313.142	-0.001	0.039
148.211	0.018	0.031	229.083	-0.003	0.006	313.157	0.012	0.024
148.217	0.012	0.035	229.096	0.009	0.025	313.162	0.010	0.003
149.052	-0.229	0.031	229.101	0.004	0.001	313.167	0.012	0.035
149.074	0.121	0.122	229.109	-0.026	-0.002	313.173	0.022	0.007
149.08	0.005	-0.040	229.115	0.001	-0.019	313.179	0.006	-0.002
149.086	0.084	-0.117	229.121	-0.012	0.005	313.188	0.021	0.052
149.118	0.008	0.008	229.127	0.015	-0.044	313.194	-0.011	-0.053
149.189	-0.018	0.021	229.132	0.007	-0.009	313.203	-0.007	-0.038
149.196	-0.074	-0.012	229.137	0.079	0.085	313.213	0.027	0.026
149.225	-0.015	-0.033	229.144	-0.040	-0.008	313.22	0.010	0.014
150.039	0.004	-0.008	229.149	0.021	0.020	313.228	0.009	0.003

150.046	0.024	0.044	229.156	0.025	0.020	313.234	0.019	-0.009
150.054	-0.172	0.022	229.223	0.006	-0.012	314.11	0.031	0.046
150.065	0.050	0.035	229.241	0.019	0.027	314.117	-0.015	0.007
150.072	0.037	0.012	229.249	0.019	0.018	314.126	0.028	0.032
150.077	-0.002	-0.044	229.258	0.007	0.005	314.134	0.010	0.014
150.084	0.008	-0.021	229.271	0.014	0.039	314.139	-0.002	-0.050
150.089	0.012	-0.017	229.303	0.007	0.005	314.148	0.002	-0.061
150.095	0.015	-0.021	230.024	0.021	0.024	314.159	0.003	-0.009
150.106	0.009	0.009	230.03	0.047	-0.039	314.164	0.017	0.024
150.113	-0.001	0.045	230.036	0.039	0.033	314.171	0.010	0.006
150.141	0.004	0.037	230.072	0.009	0.011	314.211	0.010	0.003
150.148	-0.010	-0.003	230.081	0.005	0.037	314.232	0.006	-0.024
150.174	0.011	0.016	230.096	0.021	0.027	315.11	0.012	-0.012
151.066	-0.022	0.130	230.104	0.071	-0.030	315.116	0.010	0.010
151.075	0.069	-0.109	230.111	0.022	0.036	315.121	0.021	0.021
151.118	0.003	-0.009	230.128	0.015	0.033	315.129	0.015	0.001
151.148	-0.002	-0.026	230.134	-0.002	-0.005	315.142	0.004	-0.036
151.155	-0.013	0.000	230.139	0.013	-0.014	315.15	0.033	0.044
151.162	0.002	0.006	230.146	0.026	0.039	315.161	0.026	-0.010
151.169	0.025	0.021	230.155	0.057	0.015	315.169	0.032	0.061
151.177	-0.002	-0.026	230.164	0.072	0.046	315.175	0.012	0.017
151.184	0.003	0.022	230.19	0.021	0.018	315.186	0.002	0.020
151.191	0.042	0.071	230.199	0.039	0.029	315.192	0.007	0.010
151.198	-0.003	-0.004	230.235	0.009	0.009	315.202	0.011	-0.022
151.205	-0.013	-0.077	230.243	0.007	0.005	315.207	0.006	-0.002
151.22	0.007	0.010	230.279	0.015	0.002	315.212	0.001	-0.038
151.231	0.007	-0.039	231.054	0.027	0.038	316.096	0.005	-0.020
151.981	0.006	0.006	231.06	0.050	-0.009	316.114	0.009	0.009
152.045	0.009	-0.017	231.068	0.007	0.010	316.135	0.010	0.014
152.058	-0.041	0.032	231.082	0.038	-0.005	316.185	0.025	-0.007
152.067	-0.012	0.005	231.092	-0.012	0.016	316.191	0.009	0.003
152.084	-0.060	0.065	231.098	0.002	0.016	316.198	0.030	0.076
152.092	0.080	-0.105	231.107	-0.021	-0.032	316.208	0.067	-0.101
152.098	0.021	0.000	231.116	0.014	0.013	316.214	0.032	-0.018
152.157	0.018	0.028	231.121	0.014	0.039	316.221	0.023	0.052
152.183	0.023	-0.034	231.129	0.029	-0.006	316.29	0.009	0.011
152.193	0.006	-0.011	231.142	0.011	-0.034	316.3	0.013	-0.010
153.021	0.030	0.051	231.15	-0.014	0.000	316.31	0.053	-0.010
153.027	-0.004	0.007	231.209	0.007	-0.004	316.341	0.003	-0.008
153.044	0.028	-0.027	231.227	-0.015	-0.085	316.347	0.029	0.008
153.054	0.141	0.109	232.055	0.018	0.019	316.352	0.007	-0.008
153.061	0.016	0.000	232.062	0.021	0.026	317.102	0.017	0.027
153.072	-0.013	0.001	232.068	0.027	0.046	317.113	0.011	-0.026
153.078	-0.144	0.043	232.077	0.006	-0.033	317.122	0.004	-0.024
153.084	-0.022	-0.038	232.105	0.010	0.014	317.136	0.012	0.024
153.09	0.127	0.032	232.112	0.005	0.000	317.146	0.012	0.017
153.097	0.075	-0.039	232.124	0.079	0.025	317.158	0.010	0.003

153.126	-0.013	0.001	232.131	0.042	-0.019	317.167	0.012	0.036
153.155	-0.013	0.001	232.136	0.021	-0.007	317.178	0.025	-0.054
154.049	0.020	0.012	232.142	0.008	-0.014	317.19	0.019	0.026
154.056	0.027	0.039	232.171	0.009	0.002	317.198	0.031	0.036
154.064	0.036	0.026	233.053	0.014	-0.026	317.207	0.062	-0.074
154.072	0.017	-0.002	233.078	0.010	0.012	317.212	0.043	-0.051
154.078	0.019	0.038	233.096	0.031	0.033	317.223	0.003	-0.027
154.085	0.049	-0.022	233.106	0.001	-0.041	317.247	0.012	0.017
154.092	0.057	-0.024	233.115	-0.163	0.043	317.306	0.007	0.010
154.121	0.012	0.017	233.121	-0.035	0.000	318.102	0.000	-0.036
155.009	-0.004	-0.067	233.132	0.024	0.000	318.109	0.006	-0.002
155.028	0.019	-0.005	233.176	0.007	0.005	318.123	0.016	0.023
155.071	0.100	0.033	233.203	0.012	0.017	318.135	0.076	0.056
155.077	-0.001	0.006	233.212	0.015	0.017	318.141	0.040	0.018
155.09	-0.023	0.006	233.238	0.012	0.017	318.154	0.002	-0.030
155.107	0.112	0.075	233.247	-0.004	0.016	318.168	0.014	0.039
155.113	0.012	-0.048	233.256	-0.006	0.008	318.187	0.009	0.009
155.14	-0.003	0.021	233.266	-0.018	0.006	318.204	0.006	-0.002
155.169	0.003	-0.008	233.275	-0.012	0.003	318.209	0.010	0.014
155.176	-0.024	0.006	233.283	-0.098	0.015	318.218	0.003	-0.028
155.191	-0.015	0.003	233.292	-0.049	0.005	318.229	0.009	0.009
155.198	-0.012	-0.017	233.301	-0.038	0.002	318.24	0.012	0.017
155.205	0.029	0.070	233.311	-0.012	0.003	318.25	0.008	-0.034
155.212	0.001	-0.007	233.319	-0.016	0.000	319.122	0.000	-0.036
155.232	-0.006	0.021	234.021	-0.009	-0.061	319.129	-0.005	-0.038
155.239	0.003	-0.002	234.041	0.012	0.017	319.148	-0.015	0.007
155.264	0.010	0.012	234.056	0.024	0.011	319.153	0.045	0.037
156.072	0.108	0.080	234.062	0.020	0.009	319.16	0.050	0.066
156.079	-0.019	0.015	234.072	0.030	0.015	319.171	0.005	0.018
156.092	0.020	-0.073	234.127	-0.016	0.001	319.176	0.018	0.030
156.097	0.003	-0.008	234.133	-0.013	0.000	319.201	-0.023	-0.085
156.104	0.026	-0.013	234.141	-0.155	0.022	319.243	0.001	-0.039
156.111	0.039	0.031	234.148	0.123	-0.095	320.111	0.018	-0.002
156.134	0.002	0.013	234.232	-0.014	0.004	320.117	0.032	0.036
156.14	0.047	0.070	234.241	-0.015	0.002	320.122	0.022	0.033
156.17	0.010	0.010	234.268	-0.012	-0.028	320.131	0.047	0.041
157.016	0.011	0.016	234.277	-0.010	0.019	320.141	0.005	-0.034
157.086	0.075	-0.021	234.285	0.012	0.017	320.151	0.016	-0.017
157.152	-0.003	-0.013	234.313	0.010	-0.006	320.186	0.010	0.012
157.159	-0.017	-0.001	234.318	0.030	0.044	320.197	0.012	0.017
157.181	-0.026	0.000	234.358	0.011	-0.013	320.207	0.007	0.005
157.188	0.011	-0.003	234.367	0.007	-0.009	320.218	0.004	-0.027
157.204	-0.037	0.004	234.376	0.005	-0.014	320.227	0.010	0.014
157.211	-0.003	-0.034	234.381	0.025	-0.031	320.238	0.009	-0.029
157.218	0.048	0.030	234.42	0.007	-0.008	320.248	0.002	-0.030
157.226	-0.020	-0.001	234.425	0.008	-0.004	321.113	0.010	0.012
157.233	-0.038	0.005	235.073	-0.011	-0.053	321.123	0.047	0.019

157.239	0.012	-0.043	235.09	0.003	-0.003	321.134	0.016	-0.053
157.247	0.022	0.028	235.101	0.018	0.029	321.142	0.029	0.041
157.269	0.000	-0.009	235.109	0.090	0.090	321.15	0.019	0.016
157.276	0.040	0.011	235.116	-0.022	-0.050	321.159	0.006	0.020
158.027	0.012	0.024	235.122	-0.033	0.017	321.173	-0.011	0.014
158.057	0.012	0.024	235.13	-0.005	0.009	321.182	-0.043	0.006
158.065	0.028	0.037	235.139	0.010	-0.006	321.193	-0.018	0.005
158.076	0.081	0.042	235.147	0.093	-0.109	321.203	-0.002	0.035
158.086	-0.026	0.002	235.236	0.037	-0.010	321.213	0.017	0.027
158.094	0.037	0.024	235.264	0.007	-0.009	321.224	-0.005	-0.086
158.1	-0.005	-0.038	235.269	0.015	0.009	321.235	0.017	0.017
158.107	0.022	-0.069	235.304	0.032	-0.074	321.246	0.022	0.030
158.115	-0.009	-0.012	235.336	0.025	-0.020	321.26	0.012	0.017
158.122	0.011	-0.007	235.373	-0.005	-0.038	322.125	0.011	-0.010
158.152	-0.013	0.020	236.034	0.093	0.056	322.134	0.078	0.120
158.158	0.012	0.029	236.04	-0.003	-0.021	322.14	0.046	-0.042
158.188	0.034	0.046	236.045	0.021	0.030	322.147	0.015	0.002
158.217	0.012	0.024	236.079	0.013	0.014	322.154	0.012	0.007
159.1	0.051	-0.001	236.092	-0.002	-0.010	322.21	0.012	0.024
159.199	0.038	0.097	236.099	-0.041	0.007	322.236	0.019	0.018
159.229	0.014	-0.003	236.107	0.071	0.019	322.242	-0.011	-0.053
159.236	-0.017	-0.003	236.115	0.010	0.062	323.118	0.018	0.030
159.243	0.007	-0.004	236.12	-0.005	-0.019	323.128	0.030	0.060
159.276	0.034	-0.023	236.128	0.006	-0.017	323.137	0.005	-0.053
160.032	-0.011	-0.053	236.136	0.031	-0.038	323.145	0.036	0.011
160.063	0.011	0.013	236.144	0.014	-0.021	323.15	0.035	0.031
160.093	0.040	0.033	236.154	0.032	0.001	323.157	0.010	0.003
160.099	0.097	-0.015	236.163	-0.015	0.007	323.164	0.007	0.005
160.104	-0.037	-0.002	236.171	-0.020	0.005	323.21	0.014	0.039
160.168	0.007	-0.005	236.199	0.007	-0.008	323.237	0.010	0.014
161.048	0.009	-0.052	236.204	-0.006	-0.003	323.252	0.007	0.010
161.055	0.017	-0.019	237.075	0.002	0.001	323.279	0.010	0.014
161.066	0.027	0.031	237.087	0.010	-0.009	324.127	0.009	0.009
161.072	0.095	0.077	237.107	0.085	0.077	324.145	0.026	-0.027
161.08	-0.032	0.007	237.113	0.006	-0.013	324.155	0.033	0.029
161.088	-0.008	-0.038	237.123	-0.002	-0.006	324.165	0.068	0.065
161.096	0.007	-0.013	237.133	0.005	-0.009	324.171	0.003	-0.009
161.103	0.005	-0.005	237.153	0.004	-0.005	324.201	0.009	0.009
161.117	-0.003	-0.008	237.163	0.007	-0.008	325.134	0.028	0.050
161.177	0.010	0.014	237.195	-0.007	-0.001	325.14	-0.049	0.008
162.031	0.010	0.003	237.235	0.016	0.012	325.146	-0.063	0.107
162.042	0.113	0.099	237.244	0.018	0.027	325.154	-0.005	0.020
162.049	-0.013	0.005	237.253	0.018	0.030	325.162	-0.003	-0.065
162.058	0.027	0.026	237.28	0.007	0.005	325.169	-0.008	-0.042
162.069	-0.002	-0.018	237.29	0.040	0.034	325.192	-0.013	0.000
162.078	0.033	0.020	237.298	0.007	0.010	325.203	0.012	0.024
162.085	0.033	-0.042	237.308	0.006	-0.002	325.225	0.006	0.006

162.093	0.050	0.078	237.329	0.041	-0.010	326.11	0.009	0.009
162.099	0.004	-0.023	237.334	0.007	0.010	326.116	-0.011	-0.053
162.108	0.021	-0.036	238.053	0.003	-0.009	326.134	0.002	-0.030
162.115	0.038	-0.016	238.067	0.011	0.016	326.139	0.014	0.007
162.145	0.017	-0.006	238.082	-0.013	0.001	326.148	0.030	0.016
162.176	0.007	0.005	238.09	0.006	0.010	326.155	0.043	0.037
163.03	0.017	0.006	238.098	0.025	0.031	326.161	0.010	0.006
163.037	0.072	0.076	238.111	0.013	0.027	326.175	0.012	0.024
163.042	0.021	-0.026	238.12	0.040	-0.033	326.181	0.006	0.006
163.054	-0.014	0.002	238.126	0.012	0.047	326.191	0.020	0.003
163.064	-0.016	0.000	238.132	0.009	0.012	326.214	0.014	0.039
163.088	0.030	-0.020	238.143	0.041	-0.090	326.228	0.009	0.003
163.093	0.063	0.041	238.15	0.003	-0.008	327.082	0.018	0.012
163.1	-0.019	-0.005	238.165	-0.010	-0.001	327.092	0.042	0.048
163.131	-0.003	-0.005	238.183	0.012	0.035	327.097	0.044	0.042
163.138	-0.001	-0.011	238.191	0.017	-0.067	327.102	0.024	-0.017
163.145	-0.002	0.001	238.227	0.039	0.057	327.112	0.012	-0.002
163.161	-0.009	-0.007	238.236	0.005	-0.009	327.123	-0.018	-0.007
163.168	0.018	0.040	238.255	0.011	0.016	327.171	0.021	0.028
163.175	0.022	0.011	238.264	0.028	-0.016	327.177	0.009	0.009
163.183	0.005	-0.009	238.273	-0.001	-0.032	327.182	0.007	0.030
163.198	0.031	0.036	238.301	0.025	-0.031	327.192	0.017	-0.050
163.205	0.027	0.025	238.332	0.007	0.005	327.202	0.008	-0.007
163.213	0.029	0.026	239.091	0.038	-0.007	327.212	0.037	0.036
163.22	-0.011	-0.053	239.096	0.035	0.018	327.222	0.007	0.010
163.228	0.017	0.027	239.103	0.014	0.057	327.235	-0.004	-0.048
163.236	0.033	0.034	239.112	-0.026	0.015	328.105	-0.011	-0.053
163.243	0.024	-0.004	239.119	0.028	-0.033	328.122	0.010	0.012
164.046	0.019	0.015	239.126	0.017	-0.038	328.133	0.031	0.027
164.052	0.005	-0.042	239.142	0.004	-0.024	328.149	0.010	-0.020
164.058	0.082	0.101	239.151	0.020	0.024	328.16	0.016	-0.008
164.064	0.002	-0.003	239.169	0.007	-0.014	328.168	0.033	0.034
164.072	0.003	-0.009	239.178	0.007	0.012	328.177	0.028	0.050
164.081	0.061	0.032	239.187	0.031	0.037	328.19	0.003	-0.049
164.09	-0.013	-0.049	239.214	-0.004	-0.003	328.195	0.007	0.005
164.097	0.082	0.089	239.223	0.019	-0.001	328.214	0.016	0.011
164.105	-0.003	0.001	239.269	0.017	0.027	328.22	0.017	0.027
164.113	0.029	-0.051	240.054	0.049	0.067	328.229	0.010	0.006
164.12	-0.006	-0.014	240.06	0.062	0.022	329.13	0.032	0.041
164.126	0.028	-0.002	240.067	0.003	0.036	329.136	0.028	0.035
164.134	0.032	0.049	240.073	0.011	-0.053	329.145	-0.008	-0.036
164.156	0.018	0.009	240.078	-0.040	0.009	329.153	0.034	0.064
164.165	0.026	0.010	240.085	-0.034	0.009	329.158	-0.011	-0.022
164.171	0.017	0.027	240.094	0.019	0.013	329.167	-0.003	-0.045
164.196	0.010	0.012	240.103	0.019	0.019	329.173	0.006	-0.002
165.041	-0.012	0.004	240.112	0.016	-0.010	329.183	0.012	0.024
165.048	0.015	0.021	240.121	0.014	0.046	329.192	0.010	0.006

165.055	0.083	0.045	240.13	0.048	0.038	329.208	0.009	0.011
165.061	-0.059	0.015	240.14	-0.008	0.001	329.223	0.026	0.029
165.066	-0.022	-0.015	240.148	-0.008	-0.016	329.234	0.016	0.018
165.074	-0.021	0.003	240.157	0.020	0.024	329.245	0.012	0.017
165.081	-0.031	0.008	240.166	0.028	0.043	330.174	0.036	0.073
165.088	0.030	0.046	240.174	0.002	-0.003	330.182	0.074	0.078
165.096	0.028	0.027	240.203	0.021	0.023	330.191	0.007	-0.068
165.107	-0.028	0.000	240.212	0.018	0.013	330.199	0.004	-0.031
165.115	0.022	0.046	240.22	-0.008	-0.094	330.249	0.012	0.017
165.126	0.054	0.073	240.239	0.015	0.016	331.142	-0.005	-0.038
165.133	0.009	-0.014	240.248	0.014	0.008	331.172	-0.002	-0.026
165.155	0.021	0.047	240.998	-0.017	-0.001	331.177	0.092	0.059
165.164	0.023	-0.005	241.053	0.012	0.035	331.186	0.037	0.092
165.197	0.009	0.009	241.067	-0.217	0.031	331.193	0.009	0.003
166.027	0.008	-0.004	241.074	-0.016	0.000	332.178	0.008	-0.026
166.038	0.017	-0.014	241.103	0.096	-0.089	332.185	0.020	-0.016
166.05	-0.011	-0.053	241.112	0.050	-0.010	332.2	0.022	0.030
166.062	0.047	0.043	241.117	0.039	0.035	332.205	0.010	0.010
166.069	-0.212	0.028	241.123	0.006	-0.002	333.173	0.026	0.029
166.086	0.022	0.021	241.13	0.026	0.034	333.186	0.000	-0.083
166.097	0.081	0.091	241.184	0.007	-0.004	333.191	0.046	0.069
166.105	0.110	-0.156	241.202	0.006	-0.004	333.198	0.029	0.068
166.192	-0.064	0.016	241.219	0.007	-0.004	333.205	-0.005	0.002
166.211	0.006	-0.007	241.252	0.027	-0.006	333.284	0.009	0.003
166.222	-0.133	0.025	241.283	0.005	-0.009	334.144	0.012	0.017
166.241	0.004	-0.008	241.289	-0.073	-0.002	334.191	-0.005	-0.054
166.257	0.003	-0.009	241.294	-0.014	0.002	334.201	0.026	-0.007
166.268	-0.231	0.029	241.302	-0.088	0.007	334.207	0.036	0.033
166.274	-0.013	0.001	241.31	-0.013	0.002	334.215	0.078	-0.037
166.294	-0.027	0.007	241.32	0.007	0.010	334.222	0.037	-0.037
166.306	-0.013	0.001	241.329	-0.007	0.007	334.231	0.012	0.024
167.019	0.053	0.012	241.357	-0.050	0.005	334.263	0.012	0.017
167.025	0.052	-0.006	241.365	-0.060	0.011	335.129	0.012	0.017
167.031	-0.014	0.004	241.406	-0.030	0.004	335.141	0.017	-0.051
167.055	0.036	0.037	241.411	-0.065	0.010	335.148	0.039	0.007
167.063	0.010	-0.015	241.428	-0.013	0.000	335.155	0.020	0.035
167.069	-0.068	0.029	241.467	-0.012	0.005	335.16	0.016	0.007
167.077	-0.058	0.028	242.045	0.010	0.010	335.166	0.018	0.025
167.087	0.034	-0.006	242.054	0.026	0.044	335.177	0.061	-0.020
167.097	0.023	-0.039	242.064	-0.006	0.009	335.186	0.007	0.014
167.103	0.081	0.001	242.071	-0.199	0.041	335.206	-0.038	-0.003
167.11	0.003	-0.008	242.076	0.006	0.027	335.216	-0.030	-0.002
167.134	0.056	0.058	242.085	0.019	-0.019	335.226	-0.036	-0.040
167.156	-0.016	0.000	242.094	0.029	0.021	335.232	-0.004	-0.006
167.163	-0.005	0.009	242.103	0.028	-0.069	335.238	0.019	0.063
167.171	-0.003	-0.055	242.112	0.054	-0.007	335.249	0.014	-0.007
167.179	0.018	0.018	242.118	0.005	-0.009	335.28	0.010	0.010

167.201	-0.011	-0.053	242.139	0.041	0.049	335.291	0.028	0.028
167.232	-0.011	-0.053	242.148	0.030	0.023	335.313	0.009	0.011
168.033	0.009	0.011	242.157	-0.015	0.002	336.118	0.009	0.003
168.041	0.014	0.039	242.166	0.012	0.017	336.135	0.020	0.025
168.048	-0.004	-0.042	242.176	-0.013	0.001	336.148	0.006	-0.021
168.064	0.009	0.037	242.185	-0.007	0.051	336.154	0.006	-0.002
168.069	0.028	0.052	242.208	-0.013	0.001	336.162	0.019	-0.009
168.075	0.040	-0.006	242.993	0.009	0.009	336.177	-0.002	-0.026
168.081	0.028	0.046	243	0.002	-0.030	337.145	0.009	0.011
168.088	0.019	-0.102	243.006	0.010	0.010	337.159	0.035	-0.013
168.1	0.005	-0.016	243.043	0.017	0.027	337.168	0.040	0.025
168.126	0.010	0.006	243.062	0.007	0.010	337.176	0.083	-0.072
168.141	0.003	-0.042	243.079	-0.065	0.021	337.181	0.017	-0.012
168.149	0.015	0.019	243.085	-0.030	0.003	337.186	0.009	-0.014
168.176	-0.011	-0.053	243.091	-0.039	-0.001	337.194	0.010	0.006
169.005	0.010	0.010	243.108	-0.025	0.007	337.224	0.009	0.011
169.074	-0.119	0.009	243.115	-0.013	0.001	337.246	-0.011	-0.053
169.082	-0.007	-0.137	243.123	-0.036	0.005	337.256	0.020	0.026
169.089	0.170	0.207	243.132	-0.085	0.011	337.267	0.030	0.021
169.122	0.012	-0.006	243.143	-0.064	0.007	337.288	0.004	-0.032
169.146	-0.013	0.001	243.15	0.059	0.011	337.31	0.026	0.025
169.153	0.086	0.063	243.159	0.088	0.085	337.331	-0.002	-0.026
169.16	0.008	0.032	243.168	-0.013	-0.002	338.126	0.015	0.022
169.168	-0.015	0.003	243.175	-0.053	0.008	338.136	0.012	0.017
169.183	0.015	0.049	243.191	0.032	-0.045	338.15	0.022	-0.022
169.191	-0.022	-0.005	243.199	0.034	-0.044	338.166	0.028	-0.014
169.199	-0.015	0.003	243.207	0.006	-0.007	338.182	0.005	-0.009
169.207	0.006	-0.007	243.216	0.012	0.011	338.203	0.012	0.017
169.214	-0.028	-0.011	243.252	-0.007	0.000	339.134	0.012	0.017
169.221	0.002	-0.026	243.257	-0.012	0.003	339.147	0.031	0.002
169.229	-0.008	-0.007	244.068	0.021	0.030	339.156	0.032	0.035
169.245	-0.015	0.007	244.075	0.023	-0.001	339.163	0.013	-0.030
169.251	0.032	0.031	244.082	0.014	0.019	339.168	0.012	0.024
169.993	0.009	0.009	244.103	-0.004	-0.075	339.177	-0.005	-0.054
170.001	0.007	0.005	244.108	0.042	0.044	339.184	0.027	0.038
170.054	0.014	-0.077	244.116	0.016	0.086	339.201	0.010	0.006
170.061	0.103	0.100	244.124	-0.006	-0.019	339.26	-0.005	-0.038
170.066	0.019	0.075	244.13	0.035	0.020	340.124	0.018	-0.002
170.071	0.006	-0.011	244.139	0.015	0.011	340.13	0.063	0.042
170.077	-0.012	-0.018	244.144	0.001	-0.005	340.14	0.039	-0.003
170.086	0.024	-0.052	244.151	0.024	-0.031	340.145	-0.001	-0.050
170.091	0.000	-0.051	244.157	0.027	-0.038	340.156	0.019	0.022
170.098	-0.013	0.002	244.162	0.007	0.019	340.187	-0.002	-0.026
170.107	0.003	-0.008	244.167	0.002	-0.003	340.2	0.009	0.009
170.114	0.023	0.012	244.175	0.016	0.000	341.137	0.006	-0.002
170.122	0.024	0.017	244.193	-0.012	0.004	341.145	0.029	0.034
170.129	0.002	-0.003	244.203	0.041	0.030	341.152	0.012	-0.019

170.152	0.053	0.048	244.212	0.066	-0.036	341.162	0.018	-0.003
170.16	0.050	0.004	244.221	0.006	-0.002	341.176	0.001	-0.053
170.19	0.027	0.042	244.239	0.010	0.010	341.181	0.002	-0.030
170.213	0.012	0.017	244.249	0.026	-0.010	341.189	0.032	0.047
170.221	0.010	0.006	244.259	0.006	-0.002	341.236	0.014	0.001
170.997	-0.011	-0.053	244.286	0.010	0.014	341.242	0.032	-0.002
171.014	0.006	0.006	244.295	0.013	-0.011	341.285	0.010	0.010
171.064	0.031	0.064	245.01	0.063	0.068	342.15	0.018	0.016
171.086	-0.013	0.010	245.015	0.062	0.000	342.164	0.022	-0.009
171.094	0.051	-0.028	245.023	0.008	-0.008	342.171	0.004	-0.039
171.1	0.086	0.115	245.055	0.014	0.039	342.179	0.016	0.020
171.107	0.003	-0.021	245.084	0.018	0.000	342.242	0.012	0.017
171.131	-0.030	0.008	245.094	-0.003	0.003	342.287	-0.011	-0.053
171.138	0.013	0.019	245.103	0.002	0.039	343.169	0.022	0.014
171.161	-0.025	0.004	245.11	-0.021	-0.025	343.185	0.010	0.003
171.169	0.000	-0.015	245.12	0.013	-0.022	343.193	0.015	-0.005
171.2	0.007	-0.009	245.128	0.003	0.038	343.209	0.013	-0.051
171.207	0.031	0.039	245.133	0.004	0.003	343.217	0.022	0.026
171.23	0.010	0.006	245.142	0.028	0.049	343.224	-0.011	-0.053
171.237	0.018	0.017	245.147	0.021	0.034	344.164	0.010	0.014
171.246	0.013	0.013	245.157	0.039	-0.026	344.181	-0.004	-0.041
172.063	-0.021	0.002	245.165	0.021	0.018	344.188	0.006	-0.002
172.068	-0.086	0.013	245.17	-0.021	-0.002	344.194	0.010	-0.007
172.078	-0.067	0.029	245.183	0.026	-0.013	344.207	-0.005	-0.038
172.086	0.067	0.004	245.188	-0.013	0.000	344.214	0.017	0.027
172.091	0.067	-0.061	245.201	0.005	-0.011	345.182	0.016	0.013
172.096	0.062	-0.005	245.22	0.012	0.000	345.228	0.012	0.017
172.103	0.024	0.021	245.238	0.009	0.011	346.184	0.010	0.010
172.109	-0.015	0.002	245.256	0.019	0.005	347.178	0.012	0.017
172.124	0.001	0.027	245.262	0.026	0.016	347.185	0.047	0.031
172.135	-0.011	-0.050	245.275	0.009	0.011	347.195	0.011	-0.059
172.143	-0.014	0.000	245.293	0.007	0.010	347.202	0.016	0.018
172.159	0.018	0.021	245.298	0.041	0.037	347.213	0.009	0.003
172.166	0.004	0.000	246.025	0.023	0.023	348.17	0.012	0.017
172.227	0.007	0.005	246.031	0.009	0.011	348.184	0.016	-0.055
173.072	0.030	-0.004	246.085	0.051	0.061	348.195	0.010	0.014
173.08	-0.039	-0.018	246.09	-0.020	-0.086	348.206	0.007	0.010
173.087	-0.015	-0.006	246.096	0.091	0.089	349.154	0.002	-0.030
173.095	0.091	0.075	246.104	0.021	0.049	349.166	0.020	0.023
173.101	0.017	0.027	246.109	-0.007	-0.027	349.173	0.015	-0.039
173.113	0.022	-0.002	246.115	0.016	0.003	349.181	0.021	-0.007
173.174	-0.013	0.002	246.126	0.006	-0.013	349.196	-0.026	0.012
173.181	-0.012	0.003	246.137	0.008	0.015	349.207	-0.015	0.002
173.202	0.007	-0.005	246.146	0.015	0.013	349.254	0.013	-0.014
173.213	0.002	0.006	246.157	0.016	-0.009	350.162	0.010	0.012
174.036	0.012	0.017	246.168	0.030	0.014	350.187	0.006	-0.023
174.059	0.021	0.025	246.183	0.036	0.057	350.204	0.010	0.003

174.064	0.009	0.011	246.188	0.018	0.014	351.173	0.006	0.006
174.089	-0.014	0.002	247.047	-0.011	-0.053	351.178	0.009	0.009
174.098	0.097	0.064	247.057	0.044	0.064	351.183	0.007	0.010
174.104	0.059	-0.081	247.064	0.020	-0.002	351.195	-0.015	-0.083
174.111	0.001	-0.008	247.07	0.011	0.016	351.2	0.025	-0.013
174.193	0.014	-0.016	247.076	0.003	0.012	351.206	0.023	0.020
174.2	0.012	-0.017	247.088	-0.002	-0.006	351.214	-0.001	0.021
175.091	0.036	0.047	247.093	-0.003	0.022	351.232	0.012	0.017
175.097	-0.014	-0.018	247.102	-0.049	-0.049	352.162	0.007	0.010
175.191	-0.016	-0.031	247.113	-0.070	0.051	352.187	0.007	0.005
175.222	-0.002	-0.034	247.122	-0.010	-0.003	353.142	-0.005	-0.038
175.229	-0.011	0.005	247.132	0.030	0.007	353.151	0.008	-0.005
175.249	0.010	0.012	247.14	0.039	0.013	353.165	0.022	0.019
176.022	0.009	0.011	247.147	0.001	-0.018	353.233	-0.011	-0.053
176.035	0.002	-0.030	247.152	0.021	0.032	353.249	0.007	0.010
176.122	0.071	-0.059	247.158	0.060	0.076	354.181	0.018	0.013
176.223	-0.002	-0.007	247.163	0.023	0.018	354.196	0.036	-0.052
176.254	0.009	-0.016	247.177	-0.016	-0.051	354.203	0.021	-0.034
176.262	0.031	0.021	247.204	0.002	-0.030	355.141	0.007	0.005
176.282	0.043	-0.061	247.214	-0.014	0.004	355.155	0.010	0.014
176.317	0.073	-0.092	247.222	-0.012	0.003	355.166	0.004	-0.017
176.324	0.007	-0.008	247.231	0.020	0.043	355.172	-0.009	-0.060
176.352	0.013	-0.014	247.241	0.057	0.041	355.194	0.030	0.035
176.361	0.007	-0.008	247.25	0.009	0.009	355.224	0.012	0.017
176.383	0.006	-0.004	247.268	0.012	0.004	355.229	0.009	0.003
176.419	0.007	-0.008	247.278	0.024	0.028	355.235	0.021	0.048
177.042	0.013	0.023	248.072	0.010	0.010	356.155	0.012	0.017
177.053	-0.016	-0.005	248.116	-0.026	-0.037	356.187	-0.004	-0.044
177.059	0.017	0.027	248.125	-0.018	0.034	357.205	0.016	0.018
177.071	-0.048	0.011	248.131	-0.029	0.003	357.219	0.010	0.003
177.076	0.000	-0.036	248.136	0.053	0.031	357.231	0.010	0.014
177.084	0.019	0.044	248.143	0.053	-0.050	357.239	-0.005	-0.038
177.092	0.056	0.027	248.15	0.030	-0.007	358.225	0.017	0.027
177.1	0.028	0.049	248.162	0.025	-0.037	360.174	0.009	0.009
177.107	-0.068	0.010	248.2	0.030	-0.013	360.215	0.010	0.010
177.118	0.034	-0.105	248.208	-0.013	0.000	361.165	0.012	0.017
177.126	-0.002	-0.010	248.236	0.049	-0.021	361.173	-0.002	-0.026
177.142	0.001	0.005	248.246	0.044	-0.015	361.209	0.010	0.014
177.172	0.003	-0.003	248.283	0.012	0.017	363.16	0.012	0.017
178.036	0.029	-0.011	249.056	0.006	0.006	363.19	-0.011	-0.053
178.052	0.015	0.009	249.108	-0.027	-0.022	363.207	0.010	0.010
178.06	-0.011	-0.029	249.113	0.053	0.072	363.214	0.012	0.017
178.065	0.002	0.054	249.12	-0.001	0.047	363.231	-0.002	0.012
178.075	0.000	0.031	249.13	0.002	-0.029	363.237	0.012	0.017
178.081	0.041	0.041	249.138	0.015	-0.019	365.167	0.010	0.014
178.087	-0.001	-0.004	249.16	0.001	-0.007	365.173	0.006	-0.002
178.092	0.043	-0.023	250.051	-0.006	-0.061	365.181	0.007	0.010

178.098	0.026	-0.064	250.062	0.002	-0.030	365.193	-0.011	-0.053
178.105	-0.012	0.007	250.068	0.013	0.001	365.209	0.009	0.003
178.117	-0.015	0.007	250.089	0.029	0.038	371.008	0.023	0.040
178.125	0.002	-0.003	250.098	0.010	0.014	371.015	-0.108	0.050
178.14	0.017	0.022	250.104	0.023	0.007	371.022	0.004	-0.012
179.026	0.097	0.005	250.113	0.020	0.016	371.148	0.013	-0.009
179.031	0.006	-0.014	250.121	0.040	-0.070	371.158	0.038	-0.008
179.042	0.049	0.069	250.126	0.005	0.048	371.165	0.013	-0.020
179.048	-0.085	-0.007	250.132	-0.026	0.061	371.193	0.025	0.031
179.056	-0.022	-0.004	250.137	-0.059	0.012	371.198	0.008	0.006
179.064	0.007	-0.066	250.145	0.010	0.002	371.204	-0.048	-0.003
179.072	0.011	0.008	250.165	0.004	-0.008	371.21	-0.016	0.055
179.08	0.003	-0.008	250.178	0.018	0.000	371.22	0.044	-0.055
179.088	0.002	-0.014	250.187	0.018	0.013	371.304	-0.012	-0.005
179.095	-0.008	-0.057	250.197	0.016	0.010	371.311	0.004	-0.008
179.103	0.009	-0.009	250.215	0.007	-0.022	372.012	-0.048	0.070
179.115	-0.012	-0.002	250.224	0.007	0.010	372.021	-0.033	0.010
179.142	-0.022	-0.005	251.028	0.010	0.003	372.152	0.066	0.137
179.166	0.009	0.004	251.092	0.006	-0.004	372.157	0.007	0.010
179.178	0.015	-0.002	251.098	0.028	0.044	372.175	-0.024	-0.053
180.035	0.003	0.016	251.103	0.042	0.035	372.185	-0.019	0.019
180.042	0.014	-0.019	251.108	0.013	-0.005	372.191	0.020	0.019
180.047	0.069	0.058	251.115	-0.004	-0.013	372.197	-0.016	0.088
180.052	0.025	-0.056	251.12	-0.012	-0.004	372.21	0.010	0.003
180.059	0.039	0.072	251.142	-0.013	0.001	372.225	0.030	0.051
180.064	-0.012	0.004	251.169	-0.007	0.000	372.231	-0.039	0.006
180.077	-0.030	-0.005	251.178	0.011	-0.022	372.238	0.000	0.020
180.086	0.021	0.004	251.188	-0.014	0.002	372.247	-0.033	0.006
180.092	-0.014	0.004	251.198	-0.016	0.000	372.253	0.003	0.044
180.101	-0.031	0.037	251.207	0.016	0.051	372.26	-0.008	-0.004
180.108	0.081	0.005	251.244	0.014	0.039	372.266	0.010	0.003
180.115	0.062	-0.064	251.249	-0.015	0.007	372.277	-0.025	0.004
180.123	-0.014	0.002	251.281	0.008	-0.021	372.282	0.002	0.055
180.151	0.009	-0.014	252.021	0.005	-0.056	372.31	0.002	-0.037
180.174	0.005	-0.005	252.026	0.040	0.017	372.322	0.020	0.046
180.186	-0.001	-0.042	252.034	0.050	0.084	372.328	0.012	0.056
181.042	0.054	-0.013	252.041	0.010	0.010	372.333	-0.033	0.005
181.05	-0.002	-0.026	252.076	0.009	0.009	372.373	0.008	0.037
181.068	0.046	0.068	252.09	0.009	-0.003	372.399	0.010	0.003
181.074	0.022	0.011	252.097	0.054	0.028	373.006	-0.016	-0.014
181.079	-0.001	-0.034	252.105	0.040	0.035	373.016	-0.092	0.072
181.087	0.013	0.001	252.114	-0.021	0.018	373.021	0.039	0.014
181.096	0.008	0.034	252.122	0.003	-0.009	373.102	0.041	0.041
181.107	-0.002	-0.026	252.129	0.008	-0.015	373.113	-0.016	-0.015
181.115	0.048	-0.013	252.137	0.006	-0.011	373.148	0.007	-0.009
181.122	0.003	0.005	252.145	0.023	0.024	373.158	0.013	0.017
181.153	0.006	-0.038	252.155	-0.002	-0.012	373.164	0.010	0.003

182.046	0.009	0.009	252.168	0.006	-0.007	373.193	0.018	0.034
182.055	0.041	0.044	252.182	0.016	0.031	373.198	-0.013	-0.003
182.064	0.040	0.043	252.216	0.008	-0.003	373.204	0.025	0.026
182.072	0.015	-0.045	252.271	0.012	0.024	373.215	-0.083	-0.013
182.077	0.027	0.014	252.304	0.012	0.024	373.22	0.029	0.034
182.083	0.017	0.000	253.039	-0.012	-0.071	373.226	-0.017	-0.063
182.094	0.018	0.014	253.106	0.007	0.028	373.231	0.005	0.029
182.101	0.004	-0.033	253.116	0.072	0.058	373.237	0.007	0.005
182.112	0.019	0.016	253.125	0.017	-0.004	373.243	0.002	0.019
182.117	0.012	0.035	253.131	-0.020	-0.014	373.249	-0.014	-0.018
182.125	0.025	0.029	253.141	0.006	-0.016	373.258	0.000	0.015
182.141	0.010	0.014	253.16	-0.007	-0.037	373.316	-0.005	-0.038
182.156	-0.003	-0.048	253.169	0.008	0.042	374.007	-0.017	-0.003
183.039	0.069	-0.090	253.187	-0.017	-0.002	374.013	-0.040	0.052
183.045	0.026	-0.029	253.197	0.001	0.003	374.02	-0.075	0.065
183.054	0.028	0.010	253.215	-0.013	0.001	374.03	0.052	-0.014
183.059	0.023	-0.008	253.295	0.024	0.000	374.037	0.007	0.005
183.065	-0.021	0.014	254.042	0.024	0.024	374.074	-0.017	-0.001
183.072	-0.036	0.030	254.052	0.013	0.009	374.086	-0.015	0.007
183.078	-0.097	0.097	254.089	0.004	-0.004	374.098	0.018	0.016
183.086	-0.014	0.000	254.105	0.038	0.061	374.212	-0.005	-0.038
183.091	0.048	0.002	254.114	0.028	0.063	378.177	0.005	-0.007
183.097	0.040	-0.050	254.122	-0.008	-0.037	383.193	0.012	0.017
183.106	0.010	-0.026	254.131	0.020	-0.027	388.032	0.006	0.038
183.118	-0.016	0.022	254.137	0.021	-0.033	388.037	0.073	-0.006
183.129	0.067	0.002	254.143	0.002	-0.019	388.042	0.005	-0.026
183.137	0.024	-0.006	254.151	0.005	-0.009	388.048	0.011	-0.019
183.153	-0.027	0.003	254.158	-0.012	0.005	388.123	-0.013	0.002
183.161	0.001	-0.032	254.176	0.019	0.024	388.135	0.002	-0.030
183.169	0.002	-0.030	254.185	-0.011	0.000	388.158	0.007	-0.009
183.177	0.008	-0.004	254.27	0.023	0.027	388.211	-0.005	-0.038
183.201	0.007	0.010	255.051	0.012	0.024	388.216	0.008	-0.004
184.031	0.006	-0.011	255.099	0.057	0.010	388.233	0.019	-0.015
184.039	0.078	0.011	255.104	-0.026	0.037	388.239	0.029	-0.024
184.047	0.050	0.046	255.11	0.032	0.003	388.246	0.019	-0.092
184.06	0.021	0.015	255.116	-0.033	-0.029	389.026	-0.002	0.006
184.074	0.022	0.011	255.122	0.010	-0.012	389.032	0.032	-0.021
184.086	0.028	-0.063	255.127	0.010	0.003	389.038	0.016	-0.098
184.094	0.005	-0.004	255.139	0.019	0.020	389.043	0.057	0.101
184.106	0.017	0.026	255.153	0.017	0.013	389.052	-0.016	0.001
184.114	0.003	-0.042	255.158	0.016	0.005	389.105	0.009	0.009
184.122	0.059	0.010	255.167	0.001	-0.019	389.117	-0.002	-0.026
184.13	0.033	-0.012	255.176	-0.011	-0.012	389.128	0.015	-0.005
184.138	0.016	-0.009	255.186	0.013	0.006	389.152	0.043	0.013
184.146	0.060	0.045	255.194	-0.007	-0.010	389.158	0.027	-0.030
184.153	0.013	-0.012	255.204	-0.020	-0.041	389.163	-0.013	0.001
184.161	0.010	0.006	255.214	-0.013	0.001	389.174	0.033	0.044

184.205	0.012	0.017	255.26	0.103	0.102	389.181	0.007	-0.004
185.039	-0.005	-0.038	255.28	0.003	-0.009	389.186	0.010	-0.013
185.057	-0.247	0.035	255.289	0.010	0.010	389.197	0.034	-0.045
185.074	0.011	-0.023	255.298	0.110	0.127	389.204	0.019	0.023
185.095	0.125	0.040	255.317	0.003	-0.009	389.209	0.041	-0.018
185.102	0.054	0.047	255.335	0.073	0.057	389.215	0.019	0.023
185.108	0.058	-0.077	255.374	-0.002	-0.026	389.22	-0.007	-0.007
185.14	0.016	0.004	256.025	0.010	0.012	389.225	0.005	-0.009
185.148	0.044	0.026	256.053	0.042	0.044	389.233	0.013	-0.006
185.171	0.003	-0.003	256.058	0.002	-0.030	389.244	0.012	0.017
185.211	0.014	0.039	256.066	0.026	0.037	389.256	0.005	-0.005
185.243	0.015	0.013	256.09	0.003	-0.002	390.025	0.016	-0.033
185.251	0.010	0.010	256.098	0.016	0.022	390.031	0.068	0.032
185.26	-0.246	0.037	256.105	0.023	0.035	390.04	0.064	0.003
185.312	-0.149	0.024	256.11	0.008	-0.037	390.047	-0.005	-0.052
185.384	-0.087	0.006	256.12	-0.003	-0.010	390.058	0.010	0.014
185.42	-0.091	0.007	256.132	0.009	-0.026	390.173	0.030	0.038
185.429	-0.159	0.030	256.138	0.059	0.052	390.181	0.007	0.005
185.458	-0.016	0.001	256.144	-0.004	0.070	390.187	0.011	0.016
185.504	-0.016	0.001	256.15	-0.011	-0.003	390.215	0.010	0.003
185.901	-0.060	0.008	256.159	0.049	-0.028	391.03	0.007	-0.005
185.909	-0.012	0.004	256.169	-0.011	-0.032	391.193	0.117	0.034
185.931	-0.135	0.016	256.253	0.012	0.035	391.198	-0.038	-0.054
185.937	-0.080	0.009	256.28	0.012	0.017	391.203	0.023	0.005
185.945	-0.012	0.004	257.061	0.011	-0.005	391.213	-0.016	0.001
185.97	-0.015	0.003	257.072	-0.014	0.004	391.279	-0.006	-0.019
185.978	-0.012	0.004	257.091	-0.025	0.005	391.314	-0.016	0.001
185.988	-0.015	0.002	257.098	0.007	-0.004	391.325	0.034	0.020
185.996	-0.022	0.008	257.104	0.009	0.010	391.337	-0.001	-0.005
186.005	-0.029	0.008	257.116	0.004	0.038	391.349	0.005	-0.009
186.045	0.147	0.099	257.125	0.012	0.008	391.36	-0.016	0.001
186.054	0.003	-0.043	257.131	-0.031	0.002	391.371	0.039	0.044
186.061	-0.240	0.034	257.14	-0.032	-0.056	391.383	0.020	-0.019
186.09	0.019	-0.002	257.149	-0.007	0.029	391.389	0.010	0.010
186.098	0.116	0.089	257.154	0.043	0.015	391.413	-0.016	0.001
186.105	0.081	-0.077	257.161	0.064	0.036	391.418	0.074	0.025
186.129	-0.002	-0.026	257.17	0.023	0.013	391.425	0.028	-0.013
186.146	0.033	0.003	257.181	0.014	0.030	391.43	0.000	-0.035
186.153	-0.005	-0.063	257.224	0.005	-0.009	391.464	0.013	-0.006
186.163	-0.008	0.025	257.266	0.025	0.024	392.185	0.009	-0.006
186.17	0.075	0.086	257.276	0.010	0.003	392.191	0.096	0.002
186.177	0.052	-0.001	257.304	0.006	-0.002	392.196	0.004	-0.094
186.185	-0.007	-0.059	257.35	0.010	0.014	392.201	0.040	0.011
186.192	0.008	-0.014	257.36	0.007	0.010	392.21	0.021	0.050
186.217	0.006	-0.011	258.052	0.017	0.028	393.182	0.002	-0.030
186.454	-0.051	0.010	258.059	0.073	0.096	393.2	0.012	0.017
186.465	-0.027	0.000	258.068	0.016	0.024	396.171	0.011	-0.012

186.48	-0.013	0.001	258.074	0.015	0.012	396.183	0.055	-0.097
186.497	-0.027	0.005	258.081	-0.029	0.002	396.188	0.007	-0.009
186.512	-0.141	0.021	258.088	-0.075	0.013	396.26	0.003	-0.008
186.549	-0.030	0.006	258.099	-0.007	0.032	408.192	0.009	0.011
187	-0.015	0.002	258.11	-0.014	-0.017	408.211	0.007	-0.008
187.053	0.007	-0.025	258.115	0.022	0.024	408.219	0.022	-0.033
187.064	-0.246	0.035	258.128	0.042	-0.083	422.169	0.012	0.017
187.08	0.052	0.039	258.137	0.049	0.080	422.177	0.010	0.014
187.088	0.114	0.037	258.144	-0.005	-0.038	423.175	0.007	0.005
187.095	0.046	-0.001	258.149	0.012	0.017	433.27	0.007	-0.009
187.101	-0.003	-0.042	258.157	0.027	0.021	445.007	0.010	0.012
187.11	0.015	0.003	258.162	-0.016	-0.005	445.013	0.028	0.010
187.125	0.012	0.011	258.17	0.005	-0.050	445.019	0.062	-0.060
187.169	-0.043	0.005	258.178	0.063	0.037	445.024	0.058	-0.031
187.177	-0.024	0.001	258.187	0.013	0.026	445.03	0.030	0.061
187.185	0.004	0.037	258.215	0.019	0.004	445.036	0.010	0.010
187.201	0.005	-0.007	258.221	0.011	0.016	462.035	0.005	-0.005
187.209	-0.155	0.016	258.253	0.033	0.034	462.041	0.010	-0.015
187.217	0.017	0.030	258.262	0.152	-0.024	462.047	0.009	-0.016
187.225	0.020	0.009	258.287	0.014	0.028	462.053	0.004	-0.008
187.241	0.007	-0.005	258.295	0.042	0.029	470.094	0.011	-0.012
187.248	0.017	0.034	258.3	0.078	-0.048	470.102	0.028	-0.035
187.257	-0.001	0.013	258.325	0.012	0.035	470.111	0.014	-0.012
187.297	-0.016	0.001	258.334	0.026	0.010	508.269	0.012	-0.006
188.055	0.022	0.018	259.026	0.007	0.005	508.281	0.012	-0.022
188.061	-0.041	0.062	259.035	-0.005	-0.038	508.29	0.041	-0.024
188.07	-0.118	0.018	259.041	0.010	0.006	508.296	0.005	-0.018