

Supplementary tabular material for “Rotating turbulent Rayleigh-Bénard convection”

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(Received 24 April 2010)

This document contains data tables corresponding to the above-titled paper.

Run	T_m (°C)	ΔT (K)	Pr	$Ra/10^9$	$Ro \Omega$	$10^5 Ek \Omega$	$Ta \Omega^{-2}/10^{10}$
E1	23.00	4.68	6.41	1.21	0.1048	1.527	1.716
E2	24.00	0.996	6.26	0.273	0.0493	1.494	1.793
E3	24.00	7.96	6.26	2.19	0.1396	1.494	1.793
E4	40.00	0.996	4.38	0.563	0.0618	1.091	3.364
E5	40.00	1.99	4.38	1.13	0.0875	1.090	3.364
E6	40.00	3.98	4.38	2.25	0.1236	1.090	3.364
E7	40.00	15.87	4.38	8.97	0.2467	1.090	3.364
E8	40.00	31.69	4.38	17.91	0.3486	1.090	3.364
E9	50.00	5.96	3.62	4.61	0.1642	0.921	4.715
E10	60.00	1.21	3.05	1.22	0.0789	0.790	6.414
E11	60.00	7.93	3.05	1.22	0.2021	0.790	6.414

TABLE 1. Parameters for all experimental runs. The last three columns give the products ($Ro \Omega$) (rad/s), ($Ek \Omega$) (rad/sec), and ($Ta \Omega^{-2}$) (s^2/rad^2) which are constant material parameters for a given experimental run.

Point	T_m (°C)	ΔT (K)	$Ra/10^9$	Nu
809233	23.000	4.681	1.209	67.65
905121	23.001	4.680	1.209	67.61
811282	24.001	0.995	0.2733	43.89
901021	24.002	7.958	2.186	80.88
902101	40.004	0.989	0.5592	54.62
902161	39.992	1.013	0.5721	54.95
808171	39.975	2.041	1.153	66.96
905081	39.997	1.997	1.129	66.53
809102	40.000	3.980	2.249	81.93
810191	40.000	3.979	2.249	81.91
808211	40.116	15.647	8.879	125.2
812102	40.000	15.877	8.973	125.4
810012	40.001	31.693	17.91	156.1
905031	40.002	31.693	17.91	155.7
902221	50.002	5.957	4.610	102.9
904141	50.003	5.956	4.609	102.8
809213	59.950	1.214	1.221	68.31
905131	60.004	1.207	1.215	68.42
905182	60.002	7.933	7.988	122.8

TABLE 2. Nusselt-number results for $\Omega = 0$.

Point	Ω (rad/s)	T_m (°C)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
809233	0.0000	23.000	4.681	1.209	67.65	1.0004	∞	∞	0.000e+00
809241	0.1571	23.001	4.678	1.208	72.89	1.0780	0.667	9.721e-05	4.233e+08
809243	0.7854	22.997	4.685	1.210	77.70	1.1488	0.134	1.944e-05	1.058e+10
809244	0.3142	23.001	4.678	1.208	75.53	1.1171	0.334	4.860e-05	1.693e+09
809251	0.0628	23.000	4.681	1.209	69.45	1.0270	1.668	2.430e-04	6.773e+07
809252	1.2566	22.998	4.683	1.209	76.72	1.1345	0.083	1.215e-05	2.709e+10
809253	1.0681	22.997	4.684	1.210	77.26	1.1424	0.098	1.430e-05	1.957e+10
905083	0.0628	23.003	4.675	1.208	69.34	1.0257	1.667	2.430e-04	6.773e+07
905091	0.1257	23.002	4.676	1.208	72.05	1.0658	0.834	1.215e-04	2.709e+08
905092	0.1885	23.003	4.673	1.207	73.54	1.0880	0.556	8.100e-05	6.096e+08
905101	0.2513	23.003	4.673	1.207	74.62	1.1040	0.417	6.075e-05	1.084e+09
905102	0.3142	23.004	4.671	1.207	75.46	1.1166	0.333	4.860e-05	1.693e+09
905103	0.3770	23.000	4.678	1.208	76.08	1.1253	0.278	4.050e-05	2.438e+09
905111	0.4398	23.002	4.675	1.208	76.59	1.1330	0.238	3.472e-05	3.319e+09
905112	0.5027	23.002	4.675	1.208	76.89	1.1374	0.208	3.038e-05	4.335e+09
905113	0.5969	23.002	4.674	1.207	77.26	1.1430	0.175	2.558e-05	6.113e+09
905121	0.0000	23.001	4.680	1.209	67.61	1.0000	∞	∞	0.000e+00
905123	0.7226	23.002	4.674	1.207	77.58	1.1478	0.145	2.113e-05	8.958e+09

TABLE 3. Results for Run E1 ($T_m \simeq 23^\circ\text{C}$, $Pr = 6.41$).

Point	Ω (rad/s)	T_m ($^{\circ}\text{C}$)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
809272	0.1571	24.002	0.994	0.273	50.16	1.1434	0.314	9.508e-05	4.424e+08
809281	0.3142	23.999	0.998	0.274	52.86	1.2032	0.157	4.754e-05	1.770e+09
809282	0.4712	23.999	0.998	0.274	52.42	1.1934	0.105	3.170e-05	3.982e+09
809283	0.6283	23.999	0.998	0.274	50.06	1.1395	0.079	2.377e-05	7.078e+09
809291	0.0628	24.002	0.994	0.273	46.76	1.0657	0.785	2.377e-04	7.079e+07
809292	1.2566	24.001	0.997	0.274	31.17	0.7099	0.039	1.189e-05	2.832e+10
809293	1.0681	24.001	0.996	0.274	37.15	0.8464	0.046	1.398e-05	2.046e+10
809301	0.9425	24.000	0.998	0.274	41.76	0.9508	0.052	1.585e-05	1.593e+10
809302	0.7854	24.000	0.998	0.274	46.32	1.0545	0.063	1.902e-05	1.106e+10
809303	0.2325	23.999	0.999	0.274	51.65	1.1757	0.213	6.425e-05	9.690e+08
810011	0.1068	23.999	0.999	0.274	48.78	1.1102	0.463	1.398e-04	2.046e+08
811282	0.0000	24.001	0.995	0.273	43.89	1.0000	∞	∞	0.000e+00
811292	0.0157	24.001	0.995	0.273	43.81	0.9982	3.143	9.508e-04	4.424e+06
811301	0.0188	24.001	0.995	0.273	43.93	1.0010	2.619	7.924e-04	6.371e+06
812012	0.0251	24.002	0.994	0.273	44.53	1.0149	1.963	5.943e-04	1.133e+07
812022	0.0138	24.002	0.994	0.273	43.94	1.0015	3.570	1.080e-03	3.426e+06
812032	0.0113	24.001	0.995	0.273	43.87	0.9998	4.364	1.321e-03	2.294e+06
812042	0.0119	24.001	0.996	0.273	43.98	1.0019	4.136	1.251e-03	2.555e+06
812051	0.0314	24.001	0.995	0.273	45.20	1.0299	1.571	4.754e-04	1.770e+07
812061	0.0346	23.999	0.999	0.274	45.31	1.0314	1.431	4.322e-04	2.141e+07
812071	0.0408	24.000	0.998	0.274	45.84	1.0435	1.210	3.657e-04	2.991e+07
812081	0.0471	24.000	0.998	0.274	46.11	1.0498	1.049	3.170e-04	3.982e+07
901021	0.0000	24.002	7.958	2.186	80.88	1.0000	∞	∞	0.000e+00
901031	0.0628	24.002	7.957	2.185	81.72	1.0105	2.221	2.377e-04	7.079e+07
901051	0.1257	24.002	7.956	2.185	84.48	1.0447	1.111	1.189e-04	2.832e+08
901061	0.0942	24.002	7.956	2.185	83.36	1.0308	1.481	1.585e-04	1.593e+08
901081	0.0565	24.002	7.956	2.185	81.38	1.0063	2.468	2.641e-04	5.734e+07
901091	0.0503	24.002	7.958	2.186	81.15	1.0034	2.777	2.971e-04	4.531e+07
901101	0.0440	24.002	7.958	2.186	81.01	1.0017	3.174	3.396e-04	3.469e+07
901111	0.0377	24.002	7.957	2.185	80.95	1.0009	3.703	3.962e-04	2.549e+07
901121	0.0314	24.003	7.956	2.185	80.97	1.0012	4.443	4.754e-04	1.770e+07
901131	0.0251	24.002	7.957	2.185	80.99	1.0014	5.554	5.943e-04	1.133e+07
901141	0.0754	24.002	7.956	2.185	82.42	1.0191	1.851	1.981e-04	1.019e+08
901151	0.0848	24.002	7.956	2.185	82.90	1.0251	1.645	1.761e-04	1.290e+08
901161	0.1100	24.002	7.955	2.185	83.95	1.0380	1.269	1.358e-04	2.168e+08
901171	0.1414	24.002	7.956	2.185	84.97	1.0507	0.987	1.056e-04	3.584e+08
901181	0.1571	24.002	7.955	2.185	85.41	1.0562	0.888	9.508e-05	4.425e+08
901191	0.1885	23.998	7.962	2.186	86.22	1.0660	0.741	7.924e-05	6.370e+08
901201	0.2199	23.994	7.971	2.188	86.82	1.0731	0.635	6.793e-05	8.669e+08
901211	0.2639	23.998	7.963	2.187	87.52	1.0820	0.529	5.660e-05	1.249e+09
901221	0.3142	23.998	7.963	2.186	88.18	1.0902	0.444	4.755e-05	1.769e+09
901231	0.3770	23.998	7.961	2.186	88.88	1.0989	0.370	3.962e-05	2.548e+09
901241	0.4398	23.998	7.961	2.186	89.36	1.1049	0.317	3.396e-05	3.468e+09
901251	0.5341	23.999	7.959	2.186	89.77	1.1100	0.261	2.797e-05	5.114e+09
901261	0.6283	23.999	7.959	2.186	89.93	1.1120	0.222	2.377e-05	7.078e+09
901271	0.7540	23.999	7.959	2.185	90.16	1.1148	0.185	1.981e-05	1.019e+10
901281	0.8796	23.999	7.959	2.185	90.08	1.1138	0.159	1.698e-05	1.387e+10
901291	1.0053	23.999	7.959	2.186	90.01	1.1130	0.139	1.486e-05	1.812e+10
901301	1.1310	24.000	7.957	2.185	89.66	1.1086	0.123	1.321e-05	2.293e+10

TABLE 4. Results for Runs E2 and E3 ($T_m \simeq 24^{\circ}\text{C}$, $Pr = 6.26$).

Point	Ω (rad/s)	T_m (°C)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
809181	0.1885	40.000	0.997	0.563	59.96	1.1032	0.328	5.785e-05	1.195e+09
809182	0.2513	40.000	0.995	0.562	60.27	1.1094	0.246	4.339e-05	2.125e+09
809183	0.3770	40.001	0.995	0.562	60.40	1.1119	0.164	2.892e-05	4.781e+09
809191	0.5655	40.000	0.995	0.563	59.62	1.0973	0.109	1.928e-05	1.076e+10
809192	0.9425	40.001	0.995	0.562	53.09	0.9774	0.066	1.157e-05	2.988e+10
902021	0.0628	40.003	0.990	0.559	57.59	1.0555	0.980	1.735e-04	1.328e+08
902031	0.0565	39.994	1.008	0.570	57.43	1.0466	1.099	1.929e-04	1.076e+08
902041	0.0503	39.996	1.004	0.567	56.87	1.0378	1.234	2.169e-04	8.499e+07
902051	0.0440	39.994	1.008	0.570	56.69	1.0332	1.413	2.479e-04	6.506e+07
902061	0.0377	39.996	1.004	0.568	56.08	1.0231	1.646	2.893e-04	4.780e+07
902071	0.0314	39.995	1.006	0.568	55.63	1.0146	1.976	3.471e-04	3.320e+07
902081	0.0251	39.995	1.006	0.568	55.15	1.0058	2.471	4.339e-04	2.125e+07
902101	0.0000	40.004	0.989	0.559	54.62	1.0010	∞	∞	0.000e+00
902111	0.0220	39.994	1.009	0.570	55.19	1.0058	2.828	4.959e-04	1.627e+07
902121	0.0000	39.993	1.010	0.571	54.85	0.9990	∞	∞	0.000e+00
902131	0.0283	39.994	1.009	0.570	55.51	1.0113	2.200	3.857e-04	2.689e+07
902141	0.0346	39.994	1.008	0.570	56.11	1.0225	1.799	3.156e-04	4.017e+07
902151	0.0408	39.995	1.006	0.568	56.36	1.0279	1.521	2.670e-04	5.610e+07
902161	0.0000	39.992	1.013	0.572	54.95	1.0001	∞	∞	0.000e+00
902171	0.1257	39.996	1.005	0.568	59.69	1.0889	0.494	8.678e-05	5.311e+08
902181	0.1068	39.994	1.008	0.569	59.52	1.0849	0.582	1.021e-04	3.837e+08
902191	0.0880	39.994	1.008	0.569	58.85	1.0727	0.707	1.240e-04	2.603e+08
902201	0.0754	39.995	1.006	0.569	58.37	1.0644	0.824	1.446e-04	1.912e+08
809193	0.9425	40.000	1.991	1.125	69.23	1.0432	0.093	1.157e-05	2.988e+10
809201	0.6912	40.001	1.990	1.125	71.19	1.0728	0.126	1.578e-05	1.607e+10
80817	0.0000	39.975	2.041	1.153	66.96	1.0016	∞	∞	0.000e+00
809202	0.5027	40.001	1.990	1.125	72.14	1.0871	0.174	2.169e-05	8.500e+09
809203	0.3770	40.001	1.990	1.125	72.74	1.0963	0.232	2.892e-05	4.781e+09
809211	0.2513	40.000	1.990	1.125	72.58	1.0937	0.348	4.339e-05	2.125e+09
809212	0.1257	40.000	1.992	1.126	71.05	1.0704	0.695	8.677e-05	5.312e+08
905041	0.0314	39.998	1.995	1.128	67.07	1.0085	2.784	3.471e-04	3.320e+07
905042	0.0628	39.998	1.996	1.128	68.87	1.0354	1.392	1.736e-04	1.328e+08
905051	0.1257	40.000	1.991	1.125	71.21	1.0713	0.695	8.677e-05	5.312e+08
905061	0.3142	40.002	1.986	1.123	72.95	1.0984	0.278	3.471e-05	3.320e+09
905062	0.1885	40.002	1.987	1.123	72.20	1.0868	0.463	5.785e-05	1.195e+09
905071	0.4712	40.002	1.987	1.123	72.33	1.0887	0.185	2.314e-05	7.471e+09
905072	0.5969	40.002	1.987	1.123	71.68	1.0789	0.146	1.827e-05	1.199e+10
905081	0.0000	39.997	1.997	1.129	66.53	1.0000	∞	∞	0.000e+00

TABLE 5. Results for Runs E4 and E5 ($T_m \simeq 40^\circ\text{C}$, $Pr = 4.38$, and $\Delta T \simeq 1.0$ and 2.0 K).

Point	Ω (rad/s)	T_m ($^{\circ}\text{C}$)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
808271	0.1257	40.055	3.869	2.191	85.00	1.0459	0.970	8.669e-05	5.323e+08
808291	0.0157	40.051	3.878	2.196	81.47	1.0018	7.767	6.936e-04	8.316e+06
808301	0.0471	40.051	3.879	2.196	81.63	1.0038	2.589	2.312e-04	7.484e+07
808281	0.2513	40.056	3.866	2.189	87.33	1.0748	0.485	4.334e-05	2.129e+09
808282	0.0314	40.051	3.879	2.196	81.54	1.0026	3.884	3.468e-04	3.326e+07
809061	0.6283	39.996	3.986	2.253	87.67	1.0697	0.197	1.736e-05	1.328e+10
809082	0.6283	39.996	3.985	2.252	87.69	1.0700	0.197	1.736e-05	1.328e+10
809091	0.3142	39.996	3.985	2.252	88.50	1.0799	0.393	3.471e-05	3.320e+09
809091	0.4712	39.997	3.984	2.251	88.54	1.0805	0.262	2.314e-05	7.470e+09
809101	0.1571	39.999	3.980	2.249	86.57	1.0567	0.786	6.942e-05	8.300e+08
809102	0.0000	40.000	3.980	2.249	81.93	1.0002	∞	∞	0.000e+00
809111	0.1257	39.999	3.980	2.249	85.69	1.0460	0.983	8.677e-05	5.312e+08
809112	0.2199	39.995	3.987	2.253	87.73	1.0704	0.562	4.959e-05	1.627e+09
809121	0.3770	39.996	3.985	2.252	88.60	1.0811	0.328	2.893e-05	4.780e+09
809122	0.5341	39.997	3.984	2.252	88.24	1.0768	0.231	2.042e-05	9.594e+09
809131	0.7540	39.996	3.987	2.253	86.76	1.0586	0.164	1.446e-05	1.912e+10
810062	0.0942	40.000	3.979	2.249	84.61	1.0329	1.310	1.157e-04	2.988e+08
810063	0.0817	40.000	3.979	2.249	83.98	1.0252	1.512	1.335e-04	2.244e+08
810071	0.0691	40.000	3.979	2.249	83.26	1.0164	1.787	1.578e-04	1.607e+08
810072	0.0565	39.999	3.981	2.250	82.55	1.0077	2.185	1.928e-04	1.076e+08
810081	0.0440	40.000	3.980	2.249	82.12	1.0024	2.809	2.479e-04	6.508e+07
810082	1.8850	40.000	3.981	2.250	76.73	0.9365	0.066	5.785e-06	1.195e+11
810083	1.5708	40.000	3.980	2.250	79.47	0.9700	0.079	6.942e-06	8.300e+10
810084	1.2566	40.000	3.980	2.249	82.32	1.0049	0.098	8.677e-06	5.312e+10
810091	1.0681	40.000	3.980	2.249	84.06	1.0262	0.116	1.021e-05	3.838e+10
810092	0.8796	40.000	3.979	2.249	85.56	1.0445	0.140	1.240e-05	2.603e+10
810093	0.6283	40.000	3.979	2.249	87.65	1.0700	0.197	1.735e-05	1.328e+10
810111	0.3142	40.000	3.978	2.248	88.41	1.0794	0.393	3.471e-05	3.320e+09
810131	0.1571	40.000	3.979	2.249	86.58	1.0570	0.786	6.942e-05	8.301e+08
810151	0.0785	40.000	3.979	2.249	83.80	1.0230	1.573	1.388e-04	2.075e+08
810171	0.0393	40.000	3.980	2.249	82.14	1.0026	3.146	2.777e-04	5.188e+07
810191	0.0000	40.000	3.979	2.249	81.91	1.0000	∞	∞	0.000e+00
810211	1.2566	40.000	3.979	2.249	82.27	1.0043	0.098	8.677e-06	5.312e+10
810231	0.0236	40.000	3.979	2.249	82.13	1.0026	5.242	4.628e-04	1.868e+07
810241	0.0267	40.000	3.980	2.249	82.15	1.0028	4.626	4.083e-04	2.399e+07
810251	0.0302	40.000	3.980	2.249	82.14	1.0027	4.096	3.616e-04	3.060e+07
810261	0.0327	40.000	3.980	2.249	82.17	1.0031	3.781	3.337e-04	3.591e+07
810271	0.0352	40.000	3.980	2.249	82.16	1.0029	3.511	3.099e-04	4.165e+07
810281	0.0371	40.000	3.980	2.249	82.20	1.0034	3.332	2.941e-04	4.623e+07
810291	0.0421	40.000	3.980	2.249	82.09	1.0021	2.934	2.590e-04	5.962e+07
810301	0.0440	40.000	3.980	2.249	82.20	1.0034	2.809	2.479e-04	6.508e+07
810311	0.0465	40.000	3.980	2.249	82.19	1.0033	2.657	2.345e-04	7.273e+07
811011	0.0490	40.000	3.980	2.249	82.17	1.0030	2.520	2.225e-04	8.080e+07
811021	0.0515	40.000	3.980	2.249	82.26	1.0042	2.398	2.116e-04	8.930e+07
811031	0.0540	40.000	3.980	2.249	82.29	1.0046	2.286	2.018e-04	9.822e+07
811041	0.0565	40.000	3.979	2.249	82.40	1.0059	2.184	1.928e-04	1.076e+08
811051	0.0591	40.000	3.980	2.249	82.64	1.0089	2.091	1.846e-04	1.173e+08
811062	0.0616	40.000	3.980	2.249	82.71	1.0097	2.006	1.771e-04	1.275e+08
811071	0.0641	40.000	3.979	2.249	82.91	1.0121	1.927	1.701e-04	1.382e+08
811081	0.0666	40.000	3.980	2.249	83.10	1.0144	1.855	1.637e-04	1.492e+08
811091	0.0691	40.000	3.979	2.249	83.15	1.0151	1.787	1.578e-04	1.607e+08
811101	0.0716	40.000	3.980	2.249	83.30	1.0169	1.724	1.522e-04	1.726e+08
811111	0.0754	40.000	3.979	2.249	83.49	1.0192	1.638	1.446e-04	1.912e+08
811121	0.0817	40.000	3.979	2.249	83.86	1.0238	1.512	1.335e-04	2.244e+08

TABLE 6. Results for Run E6 ($T_m \simeq 40^{\circ}\text{C}$, $Pr = 4.38$, and $\Delta T \simeq 4.0$ K).

Point	Ω (rad/s)	T_m (°C)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
808211	0.0000	40.116	15.647	8.879	125.20	1.0006	∞	∞	0.000e+00
808311	0.0314	40.118	15.642	8.877	125.25	1.0011	7.804	3.464e-04	3.334e+07
809011	0.0157	40.118	15.643	8.877	125.20	1.0007	15.609	6.927e-04	8.335e+06
809012	0.0471	40.119	15.640	8.876	125.30	1.0016	5.202	2.309e-04	7.502e+07
809022	0.6283	40.142	15.590	8.855	131.32	1.0505	0.390	1.731e-05	1.335e+10
809151	0.3142	39.999	15.873	8.971	130.46	1.0394	0.785	3.471e-05	3.320e+09
809152	0.9425	40.000	15.872	8.970	130.96	1.0434	0.262	1.157e-05	2.988e+10
809161	0.4712	40.000	15.871	8.970	131.79	1.0500	0.523	2.314e-05	7.470e+09
809162	0.1571	40.000	15.875	8.972	127.36	1.0147	1.571	6.942e-05	8.300e+08
811131	0.0188	39.999	15.878	8.973	125.52	1.0000	13.089	5.785e-04	1.195e+07
811141	0.0251	40.000	15.876	8.973	125.62	1.0008	9.817	4.339e-04	2.125e+07
811151	0.0314	39.999	15.879	8.974	125.71	1.0015	7.854	3.471e-04	3.320e+07
811161	0.0377	40.000	15.876	8.973	125.75	1.0019	6.544	2.892e-04	4.781e+07
811171	0.0440	39.999	15.879	8.974	125.68	1.0012	5.610	2.479e-04	6.507e+07
811181	0.0503	40.000	15.877	8.973	125.70	1.0014	4.908	2.169e-04	8.500e+07
811202	0.0628	40.000	15.876	8.973	125.57	1.0004	3.927	1.735e-04	1.328e+08
811211	0.0691	40.000	15.877	8.973	125.48	0.9997	3.570	1.578e-04	1.607e+08
811221	0.0754	40.000	15.877	8.973	125.34	0.9985	3.272	1.446e-04	1.912e+08
811231	0.0817	40.000	15.877	8.973	125.34	0.9986	3.021	1.335e-04	2.244e+08
811241	0.0880	40.000	15.877	8.973	125.20	0.9974	2.805	1.240e-04	2.603e+08
811251	0.0942	40.000	15.878	8.974	125.16	0.9971	2.618	1.157e-04	2.988e+08
811261	0.1005	40.000	15.878	8.974	125.08	0.9965	2.454	1.085e-04	3.400e+08
811271	0.1068	40.000	15.877	8.973	125.16	0.9971	2.310	1.021e-04	3.838e+08
812091	0.0471	39.999	15.877	8.973	125.67	1.0012	5.236	2.314e-04	7.470e+07
812102	0.0000	40.000	15.877	8.973	125.45	0.9994	∞	∞	0.000e+00
812112	0.1257	40.000	15.876	8.973	125.92	1.0032	1.963	8.677e-05	5.312e+08
812121	0.1131	39.999	15.878	8.974	125.39	0.9990	2.182	9.642e-05	4.303e+08
812131	0.1194	40.000	15.876	8.973	125.58	1.0005	2.067	9.134e-05	4.794e+08
812141	0.1319	40.000	15.877	8.973	126.20	1.0054	1.870	8.264e-05	5.857e+08
812151	0.1445	39.999	15.877	8.973	126.65	1.0090	1.707	7.546e-05	7.025e+08
812161	0.1696	40.000	15.875	8.972	127.68	1.0172	1.454	6.428e-05	9.682e+08
812171	0.1822	40.000	15.875	8.972	127.99	1.0197	1.354	5.984e-05	1.117e+09
812181	0.1948	40.000	15.874	8.972	128.28	1.0220	1.267	5.598e-05	1.276e+09
812191	0.1571	40.000	15.875	8.972	127.18	1.0133	1.571	6.942e-05	8.300e+08
812201	0.2073	39.999	15.875	8.972	128.50	1.0238	1.190	5.259e-05	1.446e+09
812211	0.2199	39.999	15.875	8.972	128.71	1.0254	1.122	4.959e-05	1.627e+09
812221	0.2388	40.000	15.874	8.971	129.03	1.0280	1.033	4.567e-05	1.918e+09
812231	0.2576	39.999	15.874	8.971	129.37	1.0307	0.958	4.233e-05	2.232e+09
812241	0.2827	40.000	15.873	8.971	129.77	1.0339	0.872	3.857e-05	2.689e+09

TABLE 7. Results for Run E7 ($T_m \simeq 40^\circ\text{C}$, $Pr = 4.38$, and $\Delta T \simeq 15.9$ K).

Point	Ω (rad/s)	T_m ($^{\circ}\text{C}$)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
810032	0.3142	40.000	31.689	17.910	158.88	1.0204	1.110	3.471e-05	3.320e+09
810033	0.3770	40.001	31.687	17.909	159.60	1.0250	0.925	2.892e-05	4.781e+09
810041	0.5027	40.002	31.684	17.908	160.88	1.0333	0.693	2.169e-05	8.500e+09
810042	0.7540	40.000	31.684	17.907	161.46	1.0370	0.462	1.446e-05	1.912e+10
810043	1.0053	40.000	31.688	17.909	160.80	1.0327	0.347	1.085e-05	3.400e+10
810051	1.2566	39.998	31.693	17.911	159.86	1.0267	0.277	8.678e-06	5.312e+10
810052	0.2827	40.000	31.689	17.910	158.44	1.0175	1.233	3.857e-05	2.689e+09
904151	0.0126	40.004	31.689	17.912	155.72	1.0001	27.739	8.677e-04	5.313e+06
904161	0.0188	40.003	31.691	17.912	155.71	1.0000	18.493	5.785e-04	1.195e+07
904171	0.0251	40.002	31.691	17.912	155.76	1.0003	13.870	4.338e-04	2.125e+07
904181	0.0377	40.003	31.691	17.912	155.80	1.0006	9.246	2.892e-04	4.782e+07
904191	0.0503	40.003	31.691	17.912	155.84	1.0008	6.935	2.169e-04	8.500e+07
904201	0.0628	40.003	31.689	17.912	155.85	1.0009	5.548	1.735e-04	1.328e+08
904211	0.0754	40.003	31.691	17.912	155.74	1.0002	4.623	1.446e-04	1.913e+08
904221	0.0880	40.003	31.691	17.912	155.62	0.9994	3.963	1.240e-04	2.603e+08
904231	0.1005	40.002	31.694	17.913	155.42	0.9981	3.468	1.085e-04	3.400e+08
904241	0.1131	40.003	31.692	17.913	155.14	0.9963	3.082	9.641e-05	4.303e+08
904251	0.1257	40.003	31.693	17.913	154.82	0.9943	2.774	8.677e-05	5.313e+08
904261	0.1382	40.003	31.692	17.913	154.64	0.9931	2.522	7.888e-05	6.429e+08
904271	0.1508	40.002	31.693	17.914	154.88	0.9946	2.312	7.231e-05	7.650e+08
904281	0.1634	40.003	31.691	17.913	155.18	0.9966	2.134	6.675e-05	8.979e+08
904291	0.1759	40.002	31.692	17.913	155.72	1.0001	1.981	6.198e-05	1.041e+09
904301	0.1885	40.003	31.690	17.912	156.15	1.0028	1.849	5.785e-05	1.195e+09
905011	0.2011	40.002	31.690	17.912	156.59	1.0056	1.734	5.423e-05	1.360e+09
905021	0.2136	40.002	31.689	17.911	156.92	1.0078	1.632	5.104e-05	1.535e+09
905031	0.0000	40.002	31.693	17.913	155.72	1.0000	∞	∞	0.000e+00

TABLE 8. Results for Run E8 ($T_m \simeq 40^{\circ}\text{C}$, $Pr = 4.38$, and $\Delta T \simeq 31.7$ K).

Point	Ω (rad/s)	T_m ($^{\circ}\text{C}$)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
902211	0.0754	50.002	5.957	4.610	102.84	0.9997	2.178	1.222e-04	2.680e+08
902221	0.0000	50.002	5.957	4.610	102.86	1.0000	∞	∞	0.000e+00
902231	0.0628	50.003	5.956	4.609	102.85	0.9999	2.614	1.466e-04	1.861e+08
902241	0.0942	50.002	5.956	4.609	103.71	1.0082	1.743	9.773e-05	4.188e+08
902251	0.1068	50.002	5.956	4.609	104.38	1.0148	1.538	8.623e-05	5.379e+08
902261	0.1005	50.002	5.956	4.610	103.98	1.0109	1.634	9.162e-05	4.765e+08
902271	0.0880	50.003	5.956	4.610	103.44	1.0057	1.867	1.047e-04	3.648e+08
902281	0.0817	50.002	5.956	4.610	103.07	1.0020	2.011	1.128e-04	3.146e+08
903011	0.0691	50.003	5.956	4.610	102.73	0.9987	2.376	1.333e-04	2.252e+08
903021	0.0565	50.002	5.957	4.610	102.90	1.0004	2.904	1.629e-04	1.508e+08
903031	0.0503	50.002	5.957	4.610	103.06	1.0019	3.268	1.832e-04	1.191e+08
903041	0.0440	50.002	5.956	4.610	103.06	1.0020	3.734	2.094e-04	9.121e+07
903061	0.0314	50.002	5.957	4.610	103.13	1.0026	5.228	2.932e-04	4.653e+07
903071	0.0377	50.002	5.957	4.610	103.12	1.0025	4.357	2.443e-04	6.701e+07
903081	0.0251	50.002	5.957	4.610	103.07	1.0021	6.535	3.665e-04	2.978e+07
903091	0.0188	50.002	5.956	4.610	103.06	1.0019	8.713	4.886e-04	1.675e+07
903101	0.1194	50.002	5.956	4.609	105.00	1.0209	1.376	7.715e-05	6.720e+08
903111	0.1319	50.002	5.956	4.609	105.46	1.0253	1.245	6.981e-05	8.209e+08
903121	0.1445	50.002	5.955	4.609	105.79	1.0286	1.136	6.374e-05	9.847e+08
903131	0.1571	50.002	5.955	4.609	106.01	1.0306	1.045	5.864e-05	1.163e+09
903141	0.1696	50.002	5.955	4.609	106.16	1.0321	0.968	5.429e-05	1.357e+09
903151	0.1885	50.002	5.956	4.609	106.77	1.0380	0.871	4.886e-05	1.675e+09
903161	0.2073	50.003	5.954	4.608	107.11	1.0414	0.792	4.442e-05	2.027e+09
903171	0.2262	50.003	5.955	4.608	107.47	1.0449	0.726	4.072e-05	2.412e+09
903181	0.2513	50.002	5.955	4.609	107.91	1.0492	0.653	3.665e-05	2.978e+09
903191	0.2827	50.002	5.955	4.608	108.14	1.0515	0.581	3.258e-05	3.769e+09
903201	0.1948	50.002	5.955	4.609	106.78	1.0382	0.843	4.729e-05	1.789e+09
903211	0.1885	50.002	5.955	4.608	106.76	1.0380	0.871	4.886e-05	1.675e+09
903221	0.1822	50.002	5.955	4.609	106.71	1.0375	0.901	5.055e-05	1.565e+09
903231	0.1759	50.002	5.956	4.609	106.47	1.0352	0.933	5.235e-05	1.459e+09
903241	0.1696	50.002	5.955	4.609	106.21	1.0326	0.968	5.429e-05	1.357e+09
903251	0.1665	50.002	5.956	4.609	106.24	1.0329	0.986	5.532e-05	1.307e+09
903271	0.1728	50.002	5.955	4.609	106.35	1.0340	0.950	5.331e-05	1.408e+09
903281	0.1791	50.003	5.954	4.608	106.53	1.0358	0.917	5.144e-05	1.512e+09
903291	0.1854	50.002	5.955	4.609	106.66	1.0370	0.886	4.969e-05	1.620e+09
903301	0.1916	50.002	5.956	4.609	106.85	1.0388	0.857	4.806e-05	1.732e+09
903311	0.2011	50.002	5.956	4.609	106.95	1.0399	0.817	4.581e-05	1.906e+09
904011	0.3142	50.002	5.955	4.608	108.33	1.0533	0.523	2.932e-05	4.653e+09
904021	0.3456	50.002	5.955	4.608	108.36	1.0536	0.475	2.665e-05	5.631e+09
904031	0.3770	50.002	5.955	4.608	108.44	1.0543	0.436	2.443e-05	6.701e+09
904041	0.4398	50.003	5.954	4.608	108.33	1.0533	0.373	2.094e-05	9.121e+09
904051	0.5027	50.002	5.955	4.609	107.99	1.0500	0.327	1.832e-05	1.191e+10
904061	0.5655	50.003	5.954	4.608	107.77	1.0479	0.290	1.629e-05	1.508e+10
904071	0.7540	50.003	5.955	4.609	106.20	1.0325	0.218	1.222e-05	2.680e+10
904081	0.9425	50.002	5.956	4.610	104.31	1.0141	0.174	9.773e-06	4.188e+10
904091	1.1310	50.002	5.957	4.611	101.98	0.9914	0.145	8.144e-06	6.031e+10
904101	1.0053	50.002	5.957	4.610	103.54	1.0066	0.163	9.162e-06	4.765e+10
904111	0.8796	50.002	5.956	4.609	104.97	1.0206	0.187	1.047e-05	3.648e+10
904121	0.8168	50.002	5.955	4.609	105.72	1.0278	0.201	1.128e-05	3.146e+10
904131	0.6597	50.002	5.955	4.609	107.15	1.0417	0.249	1.396e-05	2.052e+10
904141	0.0000	50.003	5.956	4.609	102.78	0.9993	∞	∞	0.000e+00

TABLE 9. Results for Run E9 ($T_m \simeq 50^{\circ}\text{C}$, $Pr = 3.62$).

Point	Ω (rad/s)	T_m ($^{\circ}\text{C}$)	ΔT (K)	$Ra/10^9$	Nu	$Nu(\Omega)/Nu(0)$	Ro	Ek	Ta
809213	0.0000	59.950	1.214	1.221	68.31	1.0000	∞	∞	0.000e+00
809222	0.3142	59.950	1.215	1.221	72.09	1.0553	0.252	2.516e-05	6.321e+09
809231	0.6283	59.950	1.215	1.222	66.81	0.9777	0.126	1.258e-05	2.528e+10
905131	0.0000	60.004	1.207	1.215	68.42	1.0000	∞	∞	0.000e+00
905132	0.1257	60.002	1.210	1.218	73.05	1.0670	0.628	6.284e-05	1.013e+09
905133	0.2388	60.004	1.207	1.215	73.07	1.0679	0.330	3.307e-05	3.657e+09
905141	0.3958	60.004	1.207	1.216	70.94	1.0367	0.199	1.995e-05	1.005e+10
905142	0.4712	60.002	1.210	1.218	69.77	1.0190	0.167	1.676e-05	1.424e+10
905143	0.5969	60.002	1.212	1.220	67.45	0.9847	0.132	1.323e-05	2.285e+10
905151	0.5027	60.004	1.207	1.215	69.07	1.0096	0.157	1.571e-05	1.621e+10
905152	0.3142	60.003	1.209	1.218	72.20	1.0546	0.251	2.514e-05	6.330e+09
905153	0.1571	60.003	1.208	1.216	73.22	1.0700	0.502	5.027e-05	1.583e+09
905162	0.0314	60.002	1.210	1.218	69.14	1.0098	2.512	2.514e-04	6.330e+07
905182	0.0000	60.002	7.933	7.988	122.82	1.0000	∞	∞	0.000e+00
905191	0.0188	60.002	7.933	7.988	122.99	1.0014	10.721	4.190e-04	2.279e+07
905201	0.0314	60.003	7.931	7.987	123.06	1.0020	6.432	2.514e-04	6.331e+07
905202	0.0440	60.003	7.933	7.988	123.06	1.0020	4.595	1.796e-04	1.241e+08
905211	0.0628	60.003	7.932	7.988	122.90	1.0006	3.216	1.257e-04	2.532e+08
905221	0.0942	60.003	7.932	7.987	122.33	0.9960	2.144	8.379e-05	5.697e+08
905222	0.1257	60.003	7.931	7.987	123.62	1.0065	1.608	6.284e-05	1.013e+09
905231	0.1885	60.003	7.931	7.986	125.45	1.0215	1.072	4.190e-05	2.279e+09
905232	0.2513	60.002	7.931	7.986	126.35	1.0288	0.804	3.142e-05	4.051e+09
905241	0.3142	60.003	7.930	7.986	126.92	1.0334	0.643	2.514e-05	6.330e+09
905242	0.3770	60.002	7.931	7.986	127.07	1.0346	0.536	2.095e-05	9.116e+09
905251	0.5027	60.002	7.931	7.987	126.79	1.0324	0.402	1.571e-05	1.621e+10
905252	0.5969	60.002	7.931	7.986	125.99	1.0258	0.339	1.323e-05	2.285e+10
905261	0.7854	60.002	7.932	7.987	124.21	1.0113	0.257	1.005e-05	3.956e+10
905262	0.1571	60.002	7.931	7.987	124.70	1.0154	1.286	5.027e-05	1.583e+09
905271	0.1068	60.002	7.933	7.988	122.73	0.9992	1.892	7.393e-05	7.318e+08
905272	0.0754	60.003	7.932	7.987	122.70	0.9990	2.680	1.047e-04	3.646e+08

TABLE 10. Results for Runs E10 and E11 ($T_m \simeq 60^{\circ}\text{C}$, $Pr = 3.05$).