| T (K)              | Omega_{ce} (s^-1)  | Omega_{ci} (s^-1)  | (omega_{pi}/omega_{pe})^2 | z (omega_{pe}/c)   | S(z)/S(0)          |
|--------------------|--------------------|--------------------|---------------------------|--------------------|--------------------|
| 1000.0             | 53000000000.0      | 29000000.0         | 0.001                     | 0.0                | 1.0                |
| 1030.3030303030303 | 53676767676.76768  | 29383838.383838385 | 0.001090909090909091      | 10101010.1010101   | 0.9720588627350804 |
| 1060.6060606060605 | 54353535353.535355 | 29767676.767676767 | 0.0011818181818181819     | 20202020.2020202   | 0.9448935693195721 |
| 1090.909090909091  | 55030303030.30303  | 30151515.151515152 | 0.0012727272727272728     | 30303030.303030305 | 0.9184827136395443 |
| 1121.2121212121212 | 55707070707.07071  | 30535353535353534  | 0.0013636363636363637     | 40404040.4040404   | 0.8928054763665898 |
| 1151.5151515151515 | 56383838383.83839  | 30919191.91919192  | 0.0014545454545454547     | 50505050.5050505   | 0.8678416089791345 |
| 1181.8181818181818 | 57060606060.606064 | 31303030.303030305 | 0.0015454545454545456     | 60606060.60606061  | 0.8435714182159223 |
| 1212.1212121212    | 57737373737.37373  | 31686868.686868686 | 0.0016363636363636363     | 70707070.70707071  | 0.8199757509500701 |
| 1242.42424242425   | 58414141414.14141  | 32070707.07070707  | 0.0017272727272727275     | 80808080.8080808   | 0.7970359794723935 |
| 1272.7272727272727 | 59090909090.90909  | 32454545.454545453 | 0.0018181818181818182     | 90909090.9090909   | 0.7747339871730048 |
| 1303.030303030303  | 59767676767.676765 | 32838383.83838384  | 0.0019090909090909093     | 101010101.010101   | 0.7530521546104801 |
| 1333.333333333333  | 60444444444.44444  | 33222222.22222224  | 0.002                     | 1111111111.1111111 | 0.7319733459581765 |
| 1363.6363636363635 | 61121212121.21212  | 33606060.60606061  | 0.002090909090909091      | 121212121.21212122 | 0.7114808958175595 |
| 1393.939393939394  | 61797979797.9798   | 33989898.98989899  | 0.002181818181818182      | 131313131.31313132 | 0.6915585963886706 |
| 1424.2424242424242 | 62474747474.747475 | 34373737.37373737  | 0.0022727272727272726     | 141414141.41414142 | 0.6721906849881296 |
| 1454.5454545454545 | 63151515151.51515  | 34757575.75757576  | 0.0023636363636363638     | 151515151.5151515  | 0.653361831905321  |
| 1484.848484848485  | 63828282828.28283  | 35141414.14141414  | 0.002454545454545455      | 161616161.6161616  | 0.6350571285876655 |
| 1515.1515151515    | 64505050505.05051  | 35525252.52525252  | 0.0025454545454545456     | 171717171.71717173 | 0.6172620761461205 |
| 1545.4545454545455 | 65181818181.81818  | 35909090.90909091  | 0.0026363636363636363     | 181818181.8181818  | 0.5999625741722877 |

| 1575.7575757575758 | 65858585858.58586 | 36292929.29292929  | 0.0027272727272727275 | 191919191.91919193 | 0.5831449098587408  |
|--------------------|-------------------|--------------------|-----------------------|--------------------|---------------------|
| 1606.060606060606  | 66535353535.35353 | 36676767.67676768  | 0.0028181818181818186 | 202020202.020202   | 0.5667957474144061  |
| 1636.3636363636365 | 67212121212.12121 | 37060606.06060606  | 0.0029090909090909093 | 212121212.12121212 | 0.5509021177670491  |
| 1666.666666666667  | 67888888888888888 | 37444444.4444445   | 0.003                 | 222222222.222222   | 0.5354514085451348  |
| 1696.969696969697  | 68565656565.65656 | 37828282.828282826 | 0.003090909090909091  | 232323232.32323232 | 0.5204313543315313  |
| 1727.27272727273   | 69242424242.42424 | 38212121.21212121  | 0.003181818181818182  | 242424242.424244   | 0.5058300271817325  |
| 1757.5757575757575 | 69919191919.19193 | 38595959.5959596   | 0.003272727272727273  | 252525252.52525252 | 0.49163582739947037 |
| 1787.878787878788  | 70595959595.9596  | 38979797.97979798  | 0.003363636363636364  | 262626262.62626263 | 0.4778374745627745  |
| 1818.18181818182   | 71272727272.72726 | 39363636.36363636  |                       | 272727272.72727275 |                     |
| 1848.4848484848485 | 71949494949.49495 | 39747474.747474745 |                       | 282828282.82828283 |                     |
| 1878.787878787879  | 72626262626.26262 | 40131313.13131313  | 0.003636363636363637  | 292929292.9292929  | 0.4387093009392191  |
| 1909.090909090909  | 73303030303.0303  | 40515151.515151516 | 0.0037272727272727275 | 303030303.030303   | 0.42638761652752916 |
| 1939.3939393939395 | 73979797979.79797 | 40898989.8989899   | 0.0038181818181818187 | 313131313.13131315 | 0.4144098686737047  |
| 1969.6969696969697 | 74656565656.56566 | 41282828.28282829  | 0.003909090909090909  | 323232323.2323232  | 0.4027665173454651  |
| 2000.0             | 7533333333333333  | 4166666666666666   | 0.004                 | 3333333333333333   | 0.39144828543474053 |
| 2030.3030303030303 | 76010101010.10101 | 42050505.05050505  | 0.004090909090909091  | 343434343.43434346 | 0.38044615155880496 |
| 2060.606060606061  | 76686868686.86868 | 42434343.434343435 | 0.004181818181818182  | 35353535353535354  | 0.3697513430571999  |
| 2090.909090909091  | 77363636363.63635 | 42818181.81818182  | 0.0042727272727272735 | 363636363.6363636  | 0.3593553291791601  |
| 2121.2121212121    | 78040404040.40404 | 43202020.2020202   | 0.004363636363636364  | 373737373.7373737  | 0.34924981445639314 |
| 2151.5151515151515 | 78717171717.17172 | 4358585858585858   | 0.004454545454545455  | 383838383.83838385 | 0.33942673225620695 |

| 2181.818181818182  | 79393939393.93939 | 43969696.96969697  | 0.004545454545454545   | 393939393.93939394                      | 0.3298782385101072  |
|--------------------|-------------------|--------------------|------------------------|---|---------------------|
| 2212.121212121212  | 80070707070.70706 | 44353535.353535354 | 0.00463636363636363636 | 404040404.040404                        | 0.32059670561312376 |
| 2242.4242424242425 | 80747474747.47475 | 44737373.73737374  | 0.0047272727272727275  | 414141414.14141417                      | 0.3115747164892493  |
| 2272.727272727273  | 81424242424.24242 | 45121212.121212125 | 0.004818181818181819   | 424242424.24242425                      | 0.3028050588184973  |
| 2303.030303030303  | 82101010101.0101  | 45505050.5050505   | 0.00490909090909091    | 434343434.34343433                      | 0.29428071942120876 |
| 2333.333333333333  | 82777777777.7777  | 45888888888888     | 0.005                  | 444444444444444444444444444444444444444 | 0.28599487879535157 |
| 2363.636363636364  | 83454545454.54546 | 46272727.27272727  | 0.005090909090909091   | 454545454.54545456                      | 0.27794090580267605 |
| 2393.939393939394  | 84131313131.31313 | 46656565.65656565  | 0.005181818181818182   | 464646464.64646465                      | 0.27011235249969406 |
| 2424.2424242424    | 84808080808.08081 | 47040404.04040404  | 0.0052727272727272735  | 474747474.74747473                      | 0.26250294910956445 |
| 2454.5454545454545 | 85484848484.84848 | 47424242.42424242  | 0.005363636363636364   | 484848484.8484849                       | 0.2551065991310676  |
| 2484.848484848485  | 86161616161.61615 | 47808080.80808081  | 0.005454545454545455   | 494949494.94949496                      | 0.24791737458095864 |
| 2515.151515151515  | 86838383838.38383 | 48191919.19191919  | 0.005545454545454546   | 505050505.05050504<br>515151515.1515151 | 0.24092951136608556 |
| 2545.4545454545455 | 87515151515.15152 | 48575757.57575758  | 0.00563636363636363636 |   | 0.23413740478175638 |
| 2575.757575757576  | 88191919191.91919 | 48959595.95959596  | 0.0057272727272727275  | 525252525.25252527                      | 0.22753560513293636 |
| 2606.060606060606  | 88868686868.68686 | 49343434.34343434  | 0.005818181818181819   | 53535353535353535                       | 0.22111881347494464 |
| 2636.3636363636365 | 89545454545.45454 | 49727272.72727273  | 0.00590909090909091    | 545454545.4545455                       | 0.21488187747041193 |
| 2666.666666666667  | 902222222223      | 50111111.11111111  | 0.006                  | 55555555555556                          | 0.20881978735934795 |
| 2696.969696969697  | 90898989898.9899  | 50494949.49494949  | 0.006090909090909091   | 565656565.6565657                       | 0.20292767203924922 |
| 2727.272727272727  | 91575757575.75757 | 50878787.878787875 | 0.006181818181818182   | 575757575.7575758                       | 0.19720079525226608 |
| 2757.575757575758  | 92252525252.52524 | 51262626.26262626  | 0.006272727272727274   | 585858585.8585858                       | 0.19163455187652131 |

| 2787.878787878788  | 92929292929.29292  | 51646464.646464646 | 0.006363636363636364  | 595959595.9595959                       | 0.18622446431875717 |
|--------------------|--------------------|--------------------|-----------------------|---|---------------------|
| 2818.181818181818  | 93606060606.06061  | 52030303.03030303  | 0.006454545454545455  | 606060606.060606                        | 0.18096617900555936 |
| 2848.4848484848485 | 94282828282.82828  | 52414141.41414142  | 0.006545454545454546  | 616161616.1616162                       | 0.1758554629704831  |
| 2878.787878787879  | 94959595959.59595  | 52797979.7979798   | 0.006636363636363637  | 626262626.2626263                       | 0.17088820053447787 |
| 2909.090909090909  | 95636363636.36363  | 53181818.18181818  | 0.006727272727272728  | 6363636363636364                        | 0.1660603900770763  |
| 2939.3939393939395 | 96313131313.13132  | 53565656.565656565 | 0.006818181818181819  | 646464646.4646465                       | 0.16136814089588467 |
| 2969.69696969697   | 96989898989.89899  | 53949494.94949495  | 0.00690909090909091   | 65656565656565                          | 0.15680767015197275 |
| 3000.0             | 9766666666666666   | 543333333333333    | 0.007                 | 666666666666666666666666666666666666666 | 0.1523752998988335  |
| 3030.3030303030305 | 98343434343.43434  | 54717171.71717171  | 0.007090909090909091  | 676767676.7676767                       | 0.14806745419263798 |
| 3060.6060606060605 | 99020202020.20203  | 55101010.1010101   | 0.0071818181818181824 | 686868686.8686869                       | 0.14388065628157828 |
| 3090.909090909091  | 99696969696.9697   | 55484848.484848484 | 0.007272727272727274  | 696969696.969697                        | 0.13981152587214762 |
| 3121.2121212121215 | 100373737373.73737 | 55868686.86868687  | 0.007363636363636364  | 707070707.0707071                       | 0.1358567764702656  |
| 3151.5151515151515 | 101050505050.50504 | 56252525.252525255 | 0.007454545454545455  | 717171717.1717172                       | 0.13201321279521352 |
| 3181.818181818182  | 101727272727.27272 | 56636363.63636364  | 0.007545454545454546  | 727272727.2727273                       | 0.12827772826439993 |
| 3212.121212121212  | 102404040404.0404  | 57020202.02020202  | 0.007636363636363637  | 737373737.3737373                       | 0.1246473025470277  |
| 3242.42424242425   | 103080808080.80807 | 57404040.4040404   | 0.007727272727272728  | 747474747.4747474                       | 0.12111899918478991 |
| 3272.7272727273    | 103757575757.57574 | 57787878.78787879  | 0.007818181818181818  | 757575757.5757576                       | 0.1176899632777685  |
| 3303.030303030303  | 104434343434.34343 | 58171717.17171717  | 0.00790909090909091   | 767676767.6767677                       | 0.11435741923376239 |
| 3333.333333333333  | 105111111111.11111 | 58555555555555     | 0.008                 | 7777777777.7777778                      | 0.11111866857931667 |
| 3363.636363636364  | 105787878787.87878 | 58939393.93939394  | 0.008090909090909091  | 787878787.8787879                       | 0.10797108783077351 |

| 3393.939393939394  | 106464646464.64645 | 59323232.32323232  | 0.008181818181818182   | 797979797.979798  | 0.10491212642371053  |
|--------------------|--------------------|--------------------|------------------------|-------------------|----------------------|
| 3424.2424242424245 | 107141414141.41414 | 59707070.70707071  | 0.008272727272727274   | 8080808080808     | 0.1019393046991743   |
| 3454.5454545454545 | 107818181818.18182 | 60090909.09090909  | 0.008363636363636365   | 818181818.1818181 | 0.09905021194516331  |
| 3484.848484848485  | 108494949494.9495  | 60474747.47474748  | 0.008454545454545454   | 828282828.2828283 | 0.09624250449185387  |
| 3515.1515151515155 | 109171717171.71716 | 60858585.85858586  | 0.0085454545454545454  | 838383838.3838384 | 0.09351390385910409  |
| 3545.4545454545455 | 109848484848.48483 | 61242424.24242424  | 0.00863636363636363636 | 848484848.4848485 | 0.09086219495481061  |
| 3575.757575757576  | 110525252525.25252 | 61626262.62626262  | 0.008727272727272728   | 85858585858586    | 0.08828522432273221  |
| 3606.060606060606  | 111202020202.0202  | 62010101.010101005 | 0.008818181818181819   | 868686868.6868687 | 0.08578089843843     |
| 3636.3636363636365 | 111878787878.78787 | 62393939.39393939  | 0.008909090909090908   | 878787878.7878788 | 0.0833471820520123   |
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| 3696.969696969697  | 113232323232.32323 | 63161616.16161616  | 0.00909090909090909    | 898989898.989899  | 0.07868371851992423  |
| 3727.2727272727275 | 113909090909.09091 | 63545454.54545455  | 0.009181818181818183   | 909090909.0909091 | 0.07645017796188087  |
| 3757.5757575757575 | 114585858585.85858 | 63929292.92929293  | 0.009272727272727273   | 919191919.1919192 | 0.07427965707014599  |
| 3787.878787878788  | 115262626262.62625 | 64313131.31313131  | 0.00936363636363636366 | 929292929.2929293 | 0.07217038865942756  |
| 3818.1818181818185 | 115939393939.39394 | 64696969.696969695 | 0.009454545454545455   | 939393939.3939394 | 0.07012065478920883  |
| 3848.4848484848485 | 116616161616.16162 | 65080808.08080808  | 0.00954545454545454548 | 949494949.4949495 | 0.06812878540024409  |
| 3878.787878787879  | 117292929292.92929 | 65464646.464646466 | 0.009636363636363637   | 959595959.5959595 | 0.06619315698856212  |
| 3909.090909090909  | 117969696969.69696 | 65848484.848484844 | 0.009727272727272727   | 969696969.6969697 | 0.06431219131595149  |
| 3939.3939393939395 | 118646464646.46463 | 66232323.23232323  | 0.00981818181818182    | 979797979.7979798 | 0.062484354155931336 |
| 3969.69696969697   | 119323232323.23232 | 66616161.616161615 | 0.009909090909090909   | 989898989.8989899 | 0.060708154074237214 |

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|----|--------|-----------------|------------|------|--------------|----------------------|
| -1 |        |                 |            |      |              |                      |