

Table SI. 1,276 DEGs between the 57 low-risk samples and the 53 high-risk samples.

| mRNA   | P-value                | DEG | FDR                    |
|--------|------------------------|-----|------------------------|
| 834    | $2.17 \times 10^{-13}$ | -1  | $1.42 \times 10^{-09}$ |
| 969    | $1.04 \times 10^{-13}$ | -1  | $1.42 \times 10^{-09}$ |
| 10875  | $3.57 \times 10^{-13}$ | -1  | $1.42 \times 10^{-09}$ |
| 26157  | $3.53 \times 10^{-13}$ | -1  | $1.42 \times 10^{-09}$ |
| 64092  | $2.99 \times 10^{-12}$ | -1  | $9.52 \times 10^{-09}$ |
| 29851  | $4.24 \times 10^{-12}$ | -1  | $1.13 \times 10^{-08}$ |
| 22797  | $8.97 \times 10^{-12}$ | -1  | $1.81 \times 10^{-08}$ |
| 375298 | $9.08 \times 10^{-12}$ | -1  | $1.81 \times 10^{-08}$ |
| 3394   | $1.50 \times 10^{-11}$ | -1  | $2.17 \times 10^{-08}$ |
| 26191  | $1.44 \times 10^{-11}$ | -1  | $2.17 \times 10^{-08}$ |
| 729230 | $1.26 \times 10^{-11}$ | -1  | $2.17 \times 10^{-08}$ |
| 1193   | $2.42 \times 10^{-11}$ | -1  | $2.76 \times 10^{-08}$ |
| 2124   | $2.26 \times 10^{-11}$ | -1  | $2.76 \times 10^{-08}$ |
| 29909  | $2.43 \times 10^{-11}$ | -1  | $2.76 \times 10^{-08}$ |
| 10673  | $3.08 \times 10^{-11}$ | -1  | $3.07 \times 10^{-08}$ |
| 219972 | $3.00 \times 10^{-11}$ | -1  | $3.07 \times 10^{-08}$ |
| 1439   | $3.90 \times 10^{-11}$ | -1  | $3.66 \times 10^{-08}$ |
| 4332   | $4.47 \times 10^{-11}$ | -1  | $3.96 \times 10^{-08}$ |
| 1880   | $8.60 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 3683   | $8.76 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 3702   | $7.43 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 6402   | $7.29 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 27299  | $8.14 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 55303  | $7.88 \times 10^{-11}$ | -1  | $5.82 \times 10^{-08}$ |
| 5552   | $1.03 \times 10^{-10}$ | -1  | $6.58 \times 10^{-08}$ |
| 3937   | $1.29 \times 10^{-10}$ | -1  | $7.63 \times 10^{-08}$ |
| 9595   | $1.26 \times 10^{-10}$ | -1  | $7.63 \times 10^{-08}$ |
| 1438   | $1.46 \times 10^{-10}$ | -1  | $8.31 \times 10^{-08}$ |
| 51316  | $1.71 \times 10^{-10}$ | -1  | $9.09 \times 10^{-08}$ |
| 219285 | $1.68 \times 10^{-10}$ | -1  | $9.09 \times 10^{-08}$ |
| 27074  | $1.87 \times 10^{-10}$ | -1  | $9.64 \times 10^{-08}$ |
| 3560   | $2.03 \times 10^{-10}$ | -1  | $1.01 \times 10^{-07}$ |
| 5880   | $2.10 \times 10^{-10}$ | -1  | $1.01 \times 10^{-07}$ |
| 1234   | $2.55 \times 10^{-10}$ | -1  | $1.17 \times 10^{-07}$ |
| 3587   | $2.60 \times 10^{-10}$ | -1  | $1.17 \times 10^{-07}$ |
| 55843  | $2.64 \times 10^{-10}$ | -1  | $1.17 \times 10^{-07}$ |
| 952    | $2.73 \times 10^{-10}$ | -1  | $1.17 \times 10^{-07}$ |
| 3002   | $3.12 \times 10^{-10}$ | -1  | $1.24 \times 10^{-07}$ |
| 6039   | $2.97 \times 10^{-10}$ | -1  | $1.24 \times 10^{-07}$ |
| 51191  | $3.07 \times 10^{-10}$ | -1  | $1.24 \times 10^{-07}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 963    | $3.56 \times 10^{-10}$ | -1 | $1.39 \times 10^{-07}$ |
| 6772   | $3.86 \times 10^{-10}$ | -1 | $1.41 \times 10^{-07}$ |
| 114769 | $3.85 \times 10^{-10}$ | -1 | $1.41 \times 10^{-07}$ |
| 124460 | $3.88 \times 10^{-10}$ | -1 | $1.41 \times 10^{-07}$ |
| 914    | $4.00 \times 10^{-10}$ | -1 | $1.42 \times 10^{-07}$ |
| 8477   | $4.22 \times 10^{-10}$ | -1 | $1.46 \times 10^{-07}$ |
| 3669   | $4.78 \times 10^{-10}$ | -1 | $1.62 \times 10^{-07}$ |
| 1536   | $5.28 \times 10^{-10}$ | -1 | $1.75 \times 10^{-07}$ |
| 3659   | $6.81 \times 10^{-10}$ | -1 | $2.21 \times 10^{-07}$ |
| 7805   | $6.95 \times 10^{-10}$ | -1 | $2.21 \times 10^{-07}$ |
| 3561   | $7.21 \times 10^{-10}$ | -1 | $2.25 \times 10^{-07}$ |
| 3109   | $8.18 \times 10^{-10}$ | -1 | $2.49 \times 10^{-07}$ |
| 3512   | $8.29 \times 10^{-10}$ | -1 | $2.49 \times 10^{-07}$ |
| 915    | $8.68 \times 10^{-10}$ | -1 | $2.56 \times 10^{-07}$ |
| 55196  | $8.84 \times 10^{-10}$ | -1 | $2.56 \times 10^{-07}$ |
| 1043   | $9.44 \times 10^{-10}$ | -1 | $2.69 \times 10^{-07}$ |
| 55016  | $1.00 \times 10^{-09}$ | -1 | $2.80 \times 10^{-07}$ |
| 3600   | $1.03 \times 10^{-09}$ | -1 | $2.83 \times 10^{-07}$ |
| 942    | $1.09 \times 10^{-09}$ | -1 | $2.95 \times 10^{-07}$ |
| 50852  | $1.47 \times 10^{-09}$ | -1 | $3.91 \times 10^{-07}$ |
| 64231  | $1.53 \times 10^{-09}$ | -1 | $4.00 \times 10^{-07}$ |
| 55619  | $1.68 \times 10^{-09}$ | -1 | $4.32 \times 10^{-07}$ |
| 3601   | $1.76 \times 10^{-09}$ | -1 | $4.39 \times 10^{-07}$ |
| 51056  | $1.74 \times 10^{-09}$ | -1 | $4.39 \times 10^{-07}$ |
| 7456   | $1.91 \times 10^{-09}$ | -1 | $4.66 \times 10^{-07}$ |
| 54900  | $1.93 \times 10^{-09}$ | -1 | $4.66 \times 10^{-07}$ |
| 608    | $2.08 \times 10^{-09}$ | -1 | $4.81 \times 10^{-07}$ |
| 9246   | $2.06 \times 10^{-09}$ | -1 | $4.81 \times 10^{-07}$ |
| 51284  | $2.06 \times 10^{-09}$ | -1 | $4.81 \times 10^{-07}$ |
| 54625  | $2.24 \times 10^{-09}$ | -1 | $5.11 \times 10^{-07}$ |
| 5579   | $2.31 \times 10^{-09}$ | -1 | $5.18 \times 10^{-07}$ |
| 330    | $2.38 \times 10^{-09}$ | -1 | $5.22 \times 10^{-07}$ |
| 3932   | $2.42 \times 10^{-09}$ | -1 | $5.22 \times 10^{-07}$ |
| 4068   | $2.44 \times 10^{-09}$ | -1 | $5.22 \times 10^{-07}$ |
| 55601  | $2.46 \times 10^{-09}$ | -1 | $5.22 \times 10^{-07}$ |
| 2123   | $2.53 \times 10^{-09}$ | -1 | $5.23 \times 10^{-07}$ |
| 3134   | $2.50 \times 10^{-09}$ | -1 | $5.23 \times 10^{-07}$ |
| 3428   | $2.76 \times 10^{-09}$ | -1 | $5.58 \times 10^{-07}$ |
| 27334  | $2.77 \times 10^{-09}$ | -1 | $5.58 \times 10^{-07}$ |
| 94240  | $2.90 \times 10^{-09}$ | -1 | $5.70 \times 10^{-07}$ |
| 256586 | $2.87 \times 10^{-09}$ | -1 | $5.70 \times 10^{-07}$ |
| 3575   | $3.01 \times 10^{-09}$ | -1 | $5.78 \times 10^{-07}$ |
| 3676   | $2.99 \times 10^{-09}$ | -1 | $5.78 \times 10^{-07}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 3122   | $3.23 \times 10^{-09}$ | -1 | $6.14 \times 10^{-07}$ |
| 81704  | $3.49 \times 10^{-09}$ | -1 | $6.54 \times 10^{-07}$ |
| 55423  | $3.66 \times 10^{-09}$ | -1 | $6.79 \times 10^{-07}$ |
| 80833  | $3.78 \times 10^{-09}$ | -1 | $6.93 \times 10^{-07}$ |
| 24138  | $4.01 \times 10^{-09}$ | -1 | $7.27 \times 10^{-07}$ |
| 9447   | $4.06 \times 10^{-09}$ | -1 | $7.27 \times 10^{-07}$ |
| 4939   | $4.20 \times 10^{-09}$ | -1 | $7.45 \times 10^{-07}$ |
| 201633 | $4.26 \times 10^{-09}$ | -1 | $7.46 \times 10^{-07}$ |
| 3108   | $4.43 \times 10^{-09}$ | -1 | $7.68 \times 10^{-07}$ |
| 53829  | $4.63 \times 10^{-09}$ | -1 | $7.93 \times 10^{-07}$ |
| 4689   | $4.81 \times 10^{-09}$ | -1 | $7.96 \times 10^{-07}$ |
| 7412   | $4.84 \times 10^{-09}$ | -1 | $7.96 \times 10^{-07}$ |
| 55824  | $4.79 \times 10^{-09}$ | -1 | $7.96 \times 10^{-07}$ |
| 64761  | $4.73 \times 10^{-09}$ | -1 | $7.96 \times 10^{-07}$ |
| 10346  | $5.21 \times 10^{-09}$ | -1 | $8.45 \times 10^{-07}$ |
| 80830  | $5.25 \times 10^{-09}$ | -1 | $8.45 \times 10^{-07}$ |
| 3594   | $5.32 \times 10^{-09}$ | -1 | $8.48 \times 10^{-07}$ |
| 3430   | $5.83 \times 10^{-09}$ | -1 | $9.20 \times 10^{-07}$ |
| 313    | $5.92 \times 10^{-09}$ | -1 | $9.25 \times 10^{-07}$ |
| 60489  | $6.00 \times 10^{-09}$ | -1 | $9.28 \times 10^{-07}$ |
| 1236   | $6.29 \times 10^{-09}$ | -1 | $9.53 \times 10^{-07}$ |
| 11040  | $6.33 \times 10^{-09}$ | -1 | $9.53 \times 10^{-07}$ |
| 152926 | $6.24 \times 10^{-09}$ | -1 | $9.53 \times 10^{-07}$ |
| 2841   | $7.77 \times 10^{-09}$ | -1 | $1.16 \times 10^{-06}$ |
| 6404   | $8.05 \times 10^{-09}$ | -1 | $1.19 \times 10^{-06}$ |
| 7128   | $8.47 \times 10^{-09}$ | -1 | $1.23 \times 10^{-06}$ |
| 83666  | $8.42 \times 10^{-09}$ | -1 | $1.23 \times 10^{-06}$ |
| 25816  | $8.71 \times 10^{-09}$ | -1 | $1.25 \times 10^{-06}$ |
| 2833   | $9.54 \times 10^{-09}$ | -1 | $1.36 \times 10^{-06}$ |
| 55281  | $1.01 \times 10^{-08}$ | -1 | $1.43 \times 10^{-06}$ |
| 5996   | $1.05 \times 10^{-08}$ | -1 | $1.48 \times 10^{-06}$ |
| 286530 | $1.07 \times 10^{-08}$ | -1 | $1.48 \times 10^{-06}$ |
| 7096   | $1.07 \times 10^{-08}$ | -1 | $1.48 \times 10^{-06}$ |
| 151888 | $1.14 \times 10^{-08}$ | -1 | $1.55 \times 10^{-06}$ |
| 2633   | $1.32 \times 10^{-08}$ | -1 | $1.75 \times 10^{-06}$ |
| 3627   | $1.31 \times 10^{-08}$ | -1 | $1.75 \times 10^{-06}$ |
| 6373   | $1.31 \times 10^{-08}$ | -1 | $1.75 \times 10^{-06}$ |
| 5450   | $1.39 \times 10^{-08}$ | -1 | $1.82 \times 10^{-06}$ |
| 168537 | $1.39 \times 10^{-08}$ | -1 | $1.82 \times 10^{-06}$ |
| 4069   | $1.46 \times 10^{-08}$ | -1 | $1.90 \times 10^{-06}$ |
| 3635   | $1.50 \times 10^{-08}$ | -1 | $1.93 \times 10^{-06}$ |
| 3936   | $1.53 \times 10^{-08}$ | -1 | $1.95 \times 10^{-06}$ |
| 3620   | $1.56 \times 10^{-08}$ | -1 | $1.96 \times 10^{-06}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 9214   | $1.55 \times 10^{-08}$ | -1 | $1.96 \times 10^{-06}$ |
| 6352   | $1.59 \times 10^{-08}$ | -1 | $1.98 \times 10^{-06}$ |
| 129607 | $1.64 \times 10^{-08}$ | -1 | $2.03 \times 10^{-06}$ |
| 151636 | $1.71 \times 10^{-08}$ | -1 | $2.10 \times 10^{-06}$ |
| 10507  | $1.74 \times 10^{-08}$ | -1 | $2.11 \times 10^{-06}$ |
| 5698   | $1.90 \times 10^{-08}$ | -1 | $2.28 \times 10^{-06}$ |
| 10384  | $1.90 \times 10^{-08}$ | -1 | $2.28 \times 10^{-06}$ |
| 474344 | $1.92 \times 10^{-08}$ | -1 | $2.29 \times 10^{-06}$ |
| 6672   | $1.99 \times 10^{-08}$ | -1 | $2.35 \times 10^{-06}$ |
| 5696   | $2.04 \times 10^{-08}$ | -1 | $2.39 \times 10^{-06}$ |
| 919    | $2.08 \times 10^{-08}$ | -1 | $2.40 \times 10^{-06}$ |
| 1230   | $2.08 \times 10^{-08}$ | -1 | $2.40 \times 10^{-06}$ |
| 4283   | $2.25 \times 10^{-08}$ | -1 | $2.58 \times 10^{-06}$ |
| 10563  | $2.27 \times 10^{-08}$ | -1 | $2.59 \times 10^{-06}$ |
| 3115   | $2.32 \times 10^{-08}$ | -1 | $2.62 \times 10^{-06}$ |
| 23228  | $2.34 \times 10^{-08}$ | -1 | $2.62 \times 10^{-06}$ |
| 84941  | $2.52 \times 10^{-08}$ | -1 | $2.81 \times 10^{-06}$ |
| 3059   | $2.70 \times 10^{-08}$ | -1 | $2.99 \times 10^{-06}$ |
| 23231  | $2.81 \times 10^{-08}$ | -1 | $3.09 \times 10^{-06}$ |
| 10288  | $2.88 \times 10^{-08}$ | -1 | $3.12 \times 10^{-06}$ |
| 115361 | $2.88 \times 10^{-08}$ | -1 | $3.12 \times 10^{-06}$ |
| 51411  | $2.97 \times 10^{-08}$ | -1 | $3.20 \times 10^{-06}$ |
| 6355   | $3.11 \times 10^{-08}$ | -1 | $3.33 \times 10^{-06}$ |
| 83416  | $3.29 \times 10^{-08}$ | -1 | $3.50 \times 10^{-06}$ |
| 925    | $3.49 \times 10^{-08}$ | -1 | $3.69 \times 10^{-06}$ |
| 9262   | $3.52 \times 10^{-08}$ | -1 | $3.69 \times 10^{-06}$ |
| 7940   | $3.54 \times 10^{-08}$ | -1 | $3.69 \times 10^{-06}$ |
| 241    | $4.13 \times 10^{-08}$ | -1 | $4.24 \times 10^{-06}$ |
| 3001   | $4.11 \times 10^{-08}$ | -1 | $4.24 \times 10^{-06}$ |
| 1520   | $5.31 \times 10^{-08}$ | -1 | $5.42 \times 10^{-06}$ |
| 54809  | $5.38 \times 10^{-08}$ | -1 | $5.46 \times 10^{-06}$ |
| 84166  | $5.49 \times 10^{-08}$ | -1 | $5.54 \times 10^{-06}$ |
| 3662   | $5.73 \times 10^{-08}$ | -1 | $5.74 \times 10^{-06}$ |
| 8807   | $6.11 \times 10^{-08}$ | -1 | $6.02 \times 10^{-06}$ |
| 30009  | $6.09 \times 10^{-08}$ | -1 | $6.02 \times 10^{-06}$ |
| 64407  | $6.06 \times 10^{-08}$ | -1 | $6.02 \times 10^{-06}$ |
| 10125  | $6.20 \times 10^{-08}$ | -1 | $6.06 \times 10^{-06}$ |
| 9535   | $6.36 \times 10^{-08}$ | -1 | $6.16 \times 10^{-06}$ |
| 79132  | $6.37 \times 10^{-08}$ | -1 | $6.16 \times 10^{-06}$ |
| 83593  | $6.48 \times 10^{-08}$ | -1 | $6.22 \times 10^{-06}$ |
| 11006  | $6.89 \times 10^{-08}$ | -1 | $6.54 \times 10^{-06}$ |
| 64333  | $6.89 \times 10^{-08}$ | -1 | $6.54 \times 10^{-06}$ |
| 920    | $8.67 \times 10^{-08}$ | -1 | $8.18 \times 10^{-06}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 255231 | $8.73 \times 10^{-08}$ | -1 | $8.19 \times 10^{-06}$ |
| 719    | $8.99 \times 10^{-08}$ | -1 | $8.38 \times 10^{-06}$ |
| 199    | $9.67 \times 10^{-08}$ | -1 | $8.96 \times 10^{-06}$ |
| 2634   | $1.01 \times 10^{-07}$ | -1 | $9.33 \times 10^{-06}$ |
| 55008  | $1.04 \times 10^{-07}$ | -1 | $9.51 \times 10^{-06}$ |
| 10663  | $1.06 \times 10^{-07}$ | -1 | $9.62 \times 10^{-06}$ |
| 4050   | $1.08 \times 10^{-07}$ | -1 | $9.75 \times 10^{-06}$ |
| 4938   | $1.10 \times 10^{-07}$ | -1 | $9.75 \times 10^{-06}$ |
| 5588   | $1.10 \times 10^{-07}$ | -1 | $9.75 \times 10^{-06}$ |
| 9046   | $1.10 \times 10^{-07}$ | -1 | $9.75 \times 10^{-06}$ |
| 283897 | $1.08 \times 10^{-07}$ | -1 | $9.75 \times 10^{-06}$ |
| 3903   | $1.20 \times 10^{-07}$ | -1 | $1.05 \times 10^{-05}$ |
| 10578  | $1.26 \times 10^{-07}$ | -1 | $1.10 \times 10^{-05}$ |
| 973    | $1.27 \times 10^{-07}$ | -1 | $1.11 \times 10^{-05}$ |
| 89857  | $1.35 \times 10^{-07}$ | -1 | $1.17 \times 10^{-05}$ |
| 931    | $1.40 \times 10^{-07}$ | -1 | $1.20 \times 10^{-05}$ |
| 951    | $1.44 \times 10^{-07}$ | -1 | $1.22 \times 10^{-05}$ |
| 3957   | $1.44 \times 10^{-07}$ | -1 | $1.22 \times 10^{-05}$ |
| 53347  | $1.44 \times 10^{-07}$ | -1 | $1.22 \times 10^{-05}$ |
| 3071   | $1.47 \times 10^{-07}$ | -1 | $1.24 \times 10^{-05}$ |
| 387357 | $1.49 \times 10^{-07}$ | -1 | $1.25 \times 10^{-05}$ |
| 5778   | $1.54 \times 10^{-07}$ | -1 | $1.28 \times 10^{-05}$ |
| 197259 | $1.60 \times 10^{-07}$ | -1 | $1.33 \times 10^{-05}$ |
| 340152 | $1.66 \times 10^{-07}$ | -1 | $1.37 \times 10^{-05}$ |
| 3383   | $1.73 \times 10^{-07}$ | -1 | $1.42 \times 10^{-05}$ |
| 57823  | $1.75 \times 10^{-07}$ | -1 | $1.43 \times 10^{-05}$ |
| 4818   | $1.79 \times 10^{-07}$ | -1 | $1.45 \times 10^{-05}$ |
| 7133   | $1.80 \times 10^{-07}$ | -1 | $1.45 \times 10^{-05}$ |
| 10964  | $1.80 \times 10^{-07}$ | -1 | $1.45 \times 10^{-05}$ |
| 497189 | $1.89 \times 10^{-07}$ | -1 | $1.51 \times 10^{-05}$ |
| 79626  | $1.92 \times 10^{-07}$ | -1 | $1.53 \times 10^{-05}$ |
| 11151  | $2.04 \times 10^{-07}$ | -1 | $1.62 \times 10^{-05}$ |
| 5359   | $2.13 \times 10^{-07}$ | -1 | $1.68 \times 10^{-05}$ |
| 203328 | $2.19 \times 10^{-07}$ | -1 | $1.72 \times 10^{-05}$ |
| 1075   | $2.24 \times 10^{-07}$ | -1 | $1.75 \times 10^{-05}$ |
| 50615  | $2.35 \times 10^{-07}$ | -1 | $1.83 \times 10^{-05}$ |
| 2745   | $2.55 \times 10^{-07}$ | -1 | $1.97 \times 10^{-05}$ |
| 6347   | $2.59 \times 10^{-07}$ | -1 | $1.98 \times 10^{-05}$ |
| 285195 | $2.59 \times 10^{-07}$ | -1 | $1.98 \times 10^{-05}$ |
| 10863  | $2.68 \times 10^{-07}$ | -1 | $2.04 \times 10^{-05}$ |
| 257106 | $2.69 \times 10^{-07}$ | -1 | $2.04 \times 10^{-05}$ |
| 4599   | $2.73 \times 10^{-07}$ | -1 | $2.06 \times 10^{-05}$ |
| 3113   | $2.79 \times 10^{-07}$ | -1 | $2.10 \times 10^{-05}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 399    | $2.85 \times 10^{-07}$ | -1 | $2.13 \times 10^{-05}$ |
| 3902   | $2.90 \times 10^{-07}$ | -1 | $2.16 \times 10^{-05}$ |
| 91543  | $2.93 \times 10^{-07}$ | -1 | $2.16 \times 10^{-05}$ |
| 133418 | $2.93 \times 10^{-07}$ | -1 | $2.16 \times 10^{-05}$ |
| 4615   | $3.08 \times 10^{-07}$ | -1 | $2.26 \times 10^{-05}$ |
| 23157  | $3.17 \times 10^{-07}$ | -1 | $2.32 \times 10^{-05}$ |
| 6737   | $3.25 \times 10^{-07}$ | -1 | $2.36 \times 10^{-05}$ |
| 23424  | $3.25 \times 10^{-07}$ | -1 | $2.36 \times 10^{-05}$ |
| 7453   | $3.38 \times 10^{-07}$ | -1 | $2.42 \times 10^{-05}$ |
| 197135 | $3.37 \times 10^{-07}$ | -1 | $2.42 \times 10^{-05}$ |
| 92241  | $3.46 \times 10^{-07}$ | -1 | $2.47 \times 10^{-05}$ |
| 51816  | $3.48 \times 10^{-07}$ | -1 | $2.48 \times 10^{-05}$ |
| 2643   | $3.56 \times 10^{-07}$ | -1 | $2.53 \times 10^{-05}$ |
| 120425 | $3.66 \times 10^{-07}$ | -1 | $2.58 \times 10^{-05}$ |
| 9051   | $3.68 \times 10^{-07}$ | -1 | $2.59 \times 10^{-05}$ |
| 4360   | $3.73 \times 10^{-07}$ | -1 | $2.61 \times 10^{-05}$ |
| 25939  | $3.85 \times 10^{-07}$ | -1 | $2.68 \times 10^{-05}$ |
| 8740   | $3.89 \times 10^{-07}$ | -1 | $2.69 \times 10^{-05}$ |
| 64108  | $3.90 \times 10^{-07}$ | -1 | $2.69 \times 10^{-05}$ |
| 2219   | $4.07 \times 10^{-07}$ | -1 | $2.78 \times 10^{-05}$ |
| 51752  | $4.06 \times 10^{-07}$ | -1 | $2.78 \times 10^{-05}$ |
| 8530   | $4.24 \times 10^{-07}$ | -1 | $2.89 \times 10^{-05}$ |
| 9056   | $4.52 \times 10^{-07}$ | -1 | $3.07 \times 10^{-05}$ |
| 10462  | $4.70 \times 10^{-07}$ | -1 | $3.18 \times 10^{-05}$ |
| 9263   | $4.78 \times 10^{-07}$ | -1 | $3.22 \times 10^{-05}$ |
| 7535   | $4.86 \times 10^{-07}$ | -1 | $3.26 \times 10^{-05}$ |
| 84541  | $5.01 \times 10^{-07}$ | -1 | $3.34 \times 10^{-05}$ |
| 1521   | $5.11 \times 10^{-07}$ | -1 | $3.39 \times 10^{-05}$ |
| 924    | $5.19 \times 10^{-07}$ | -1 | $3.43 \times 10^{-05}$ |
| 51762  | $5.26 \times 10^{-07}$ | -1 | $3.47 \times 10^{-05}$ |
| 57559  | $5.40 \times 10^{-07}$ | -1 | $3.54 \times 10^{-05}$ |
| 653361 | $5.58 \times 10^{-07}$ | -1 | $3.65 \times 10^{-05}$ |
| 51338  | $5.65 \times 10^{-07}$ | -1 | $3.68 \times 10^{-05}$ |
| 91351  | $5.71 \times 10^{-07}$ | -1 | $3.70 \times 10^{-05}$ |
| 3820   | $5.87 \times 10^{-07}$ | -1 | $3.79 \times 10^{-05}$ |
| 5551   | $5.93 \times 10^{-07}$ | -1 | $3.81 \times 10^{-05}$ |
| 3689   | $6.30 \times 10^{-07}$ | -1 | $4.03 \times 10^{-05}$ |
| 3105   | $6.42 \times 10^{-07}$ | -1 | $4.09 \times 10^{-05}$ |
| 56833  | $6.58 \times 10^{-07}$ | -1 | $4.18 \times 10^{-05}$ |
| 26279  | $6.75 \times 10^{-07}$ | -1 | $4.27 \times 10^{-05}$ |
| 10561  | $7.07 \times 10^{-07}$ | -1 | $4.46 \times 10^{-05}$ |
| 9404   | $7.35 \times 10^{-07}$ | -1 | $4.61 \times 10^{-05}$ |
| 8809   | $8.17 \times 10^{-07}$ | -1 | $5.10 \times 10^{-05}$ |

|        |                        |    |                        |
|--------|------------------------|----|------------------------|
| 5294   | $8.36 \times 10^{-07}$ | -1 | $5.20 \times 10^{-05}$ |
| 3133   | $8.41 \times 10^{-07}$ | -1 | $5.22 \times 10^{-05}$ |
| 139818 | $8.44 \times 10^{-07}$ | -1 | $5.22 \times 10^{-05}$ |
| 3437   | $8.49 \times 10^{-07}$ | -1 | $5.23 \times 10^{-05}$ |
| 51237  | $9.32 \times 10^{-07}$ | -1 | $5.71 \times 10^{-05}$ |
| 3434   | $9.55 \times 10^{-07}$ | -1 | $5.83 \times 10^{-05}$ |
| 5293   | $9.62 \times 10^{-07}$ | -1 | $5.86 \times 10^{-05}$ |
| 139716 | $9.67 \times 10^{-07}$ | -1 | $5.86 \times 10^{-05}$ |
| 51311  | $9.74 \times 10^{-07}$ | -1 | $5.88 \times 10^{-05}$ |
| 2857   | $9.83 \times 10^{-07}$ | -1 | $5.91 \times 10^{-05}$ |
| 54855  | $1.03 \times 10^{-06}$ | -1 | $6.17 \times 10^{-05}$ |
| 4542   | $1.05 \times 10^{-06}$ | -1 | $6.28 \times 10^{-05}$ |
| 9873   | $1.08 \times 10^{-06}$ | -1 | $6.45 \times 10^{-05}$ |
| 11118  | $1.14 \times 10^{-06}$ | -1 | $6.78 \times 10^{-05}$ |
| 147138 | $1.19 \times 10^{-06}$ | -1 | $7.03 \times 10^{-05}$ |
| 4063   | $1.22 \times 10^{-06}$ | -1 | $7.17 \times 10^{-05}$ |
| 7098   | $1.28 \times 10^{-06}$ | -1 | $7.49 \times 10^{-05}$ |
| 6504   | $1.31 \times 10^{-06}$ | -1 | $7.64 \times 10^{-05}$ |
| 6503   | $1.34 \times 10^{-06}$ | -1 | $7.77 \times 10^{-05}$ |
| 9473   | $1.34 \times 10^{-06}$ | -1 | $7.77 \times 10^{-05}$ |
| 7097   | $1.37 \times 10^{-06}$ | -1 | $7.91 \times 10^{-05}$ |
| 55589  | $1.38 \times 10^{-06}$ | -1 | $7.91 \times 10^{-05}$ |
| 56253  | $1.46 \times 10^{-06}$ | -1 | $8.36 \times 10^{-05}$ |
| 1436   | $1.51 \times 10^{-06}$ | -1 | $8.60 \times 10^{-05}$ |
| 4688   | $1.52 \times 10^{-06}$ | -1 | $8.63 \times 10^{-05}$ |
| 5265   | $1.53 \times 10^{-06}$ | -1 | $8.67 \times 10^{-05}$ |
| 23586  | $1.53 \times 10^{-06}$ | -1 | $8.68 \times 10^{-05}$ |
| 131450 | $1.56 \times 10^{-06}$ | -1 | $8.80 \times 10^{-05}$ |
| 976    | $1.57 \times 10^{-06}$ | -1 | $8.82 \times 10^{-05}$ |
| 3579   | $1.65 \times 10^{-06}$ | -1 | $9.23 \times 10^{-05}$ |
| 23526  | $1.66 \times 10^{-06}$ | -1 | $9.24 \times 10^{-05}$ |
| 959    | $1.70 \times 10^{-06}$ | -1 | $9.44 \times 10^{-05}$ |
| 5873   | $1.71 \times 10^{-06}$ | -1 | $9.44 \times 10^{-05}$ |
| 4600   | $1.72 \times 10^{-06}$ | -1 | $9.47 \times 10^{-05}$ |
| 81537  | $1.82 \times 10^{-06}$ | -1 | 0.000100147            |
| 1844   | $1.88 \times 10^{-06}$ | -1 | 0.000102999            |
| 118788 | $1.93 \times 10^{-06}$ | -1 | 0.000105461            |
| 4940   | $1.95 \times 10^{-06}$ | -1 | 0.000105489            |
| 64005  | $1.95 \times 10^{-06}$ | -1 | 0.000105489            |
| 170575 | $1.94 \times 10^{-06}$ | -1 | 0.000105489            |
| 10068  | $2.01 \times 10^{-06}$ | -1 | 0.000108039            |
| 8638   | $2.01 \times 10^{-06}$ | -1 | 0.000108155            |
| 653319 | $2.03 \times 10^{-06}$ | 1  | 0.000108782            |

|        |                        |    |             |
|--------|------------------------|----|-------------|
| 5720   | $2.06 \times 10^{-06}$ | -1 | 0.000109685 |
| 26112  | $2.08 \times 10^{-06}$ | -1 | 0.000110773 |
| 3458   | $2.10 \times 10^{-06}$ | -1 | 0.000111315 |
| 11119  | $2.15 \times 10^{-06}$ | -1 | 0.000113397 |
| 752    | $2.18 \times 10^{-06}$ | -1 | 0.000114496 |
| 3665   | $2.23 \times 10^{-06}$ | -1 | 0.000117061 |
| 93349  | $2.24 \times 10^{-06}$ | -1 | 0.000117061 |
| 23179  | $2.25 \times 10^{-06}$ | -1 | 0.000117406 |
| 695    | $2.35 \times 10^{-06}$ | -1 | 0.000122247 |
| 2533   | $2.38 \times 10^{-06}$ | -1 | 0.000123443 |
| 84870  | $2.45 \times 10^{-06}$ | -1 | 0.00012626  |
| 54     | $2.47 \times 10^{-06}$ | -1 | 0.000126378 |
| 2313   | $2.47 \times 10^{-06}$ | -1 | 0.000126378 |
| 155038 | $2.54 \times 10^{-06}$ | -1 | 0.000129733 |
| 5971   | $2.55 \times 10^{-06}$ | -1 | 0.000129983 |
| 51379  | $2.56 \times 10^{-06}$ | -1 | 0.000130086 |
| 2359   | $2.74 \times 10^{-06}$ | -1 | 0.000138912 |
| 168455 | $2.79 \times 10^{-06}$ | -1 | 0.000140629 |
| 974    | $2.83 \times 10^{-06}$ | -1 | 0.000142075 |
| 114836 | $2.83 \times 10^{-06}$ | -1 | 0.000142075 |
| 7409   | $2.93 \times 10^{-06}$ | -1 | 0.00014665  |
| 374403 | $2.98 \times 10^{-06}$ | -1 | 0.000148553 |
| 118932 | $3.01 \times 10^{-06}$ | -1 | 0.000149505 |
| 55024  | $3.06 \times 10^{-06}$ | -1 | 0.000151395 |
| 6197   | $3.11 \times 10^{-06}$ | -1 | 0.000153339 |
| 3660   | $3.13 \times 10^{-06}$ | -1 | 0.000154157 |
| 11010  | $3.24 \times 10^{-06}$ | -1 | 0.000159078 |
| 114548 | $3.28 \times 10^{-06}$ | -1 | 0.000160187 |
| 921    | $3.33 \times 10^{-06}$ | -1 | 0.000162237 |
| 22898  | $3.34 \times 10^{-06}$ | -1 | 0.000162294 |
| 91526  | $3.35 \times 10^{-06}$ | -1 | 0.000162294 |
| 10308  | $3.42 \times 10^{-06}$ | -1 | 0.000165176 |
| 4065   | $3.44 \times 10^{-06}$ | -1 | 0.000165783 |
| 6689   | $3.45 \times 10^{-06}$ | -1 | 0.000165783 |
| 5026   | $3.49 \times 10^{-06}$ | -1 | 0.000167138 |
| 23643  | $3.50 \times 10^{-06}$ | -1 | 0.000167138 |
| 92610  | $3.52 \times 10^{-06}$ | -1 | 0.000167481 |
| 5920   | $3.54 \times 10^{-06}$ | -1 | 0.000167808 |
| 3431   | $3.58 \times 10^{-06}$ | -1 | 0.000168285 |
| 3684   | $3.58 \times 10^{-06}$ | -1 | 0.000168285 |
| 9111   | $3.58 \times 10^{-06}$ | -1 | 0.000168285 |
| 837    | $3.69 \times 10^{-06}$ | -1 | 0.00017307  |
| 83937  | $3.82 \times 10^{-06}$ | -1 | 0.000178819 |



|        |                        |    |             |
|--------|------------------------|----|-------------|
| 355    | $3.85 \times 10^{-06}$ | -1 | 0.000179473 |
| 6401   | $3.92 \times 10^{-06}$ | -1 | 0.000182313 |
| 2185   | $4.00 \times 10^{-06}$ | -1 | 0.000185208 |
| 5168   | $4.03 \times 10^{-06}$ | -1 | 0.000186041 |
| 63940  | $4.08 \times 10^{-06}$ | -1 | 0.00018797  |
| 916    | $4.17 \times 10^{-06}$ | -1 | 0.000191403 |
| 8850   | $4.20 \times 10^{-06}$ | -1 | 0.000192527 |
| 8031   | $4.31 \times 10^{-06}$ | -1 | 0.000195561 |
| 8115   | $4.30 \times 10^{-06}$ | -1 | 0.000195561 |
| 79958  | $4.28 \times 10^{-06}$ | -1 | 0.000195561 |
| 4791   | $4.38 \times 10^{-06}$ | -1 | 0.000198518 |
| 79668  | $4.42 \times 10^{-06}$ | -1 | 0.000199605 |
| 6363   | $4.64 \times 10^{-06}$ | -1 | 0.000208757 |
| 116071 | $4.66 \times 10^{-06}$ | -1 | 0.000209351 |
| 64926  | $4.71 \times 10^{-06}$ | -1 | 0.000210875 |
| 84516  | $4.77 \times 10^{-06}$ | 1  | 0.000212958 |
| 221472 | $4.88 \times 10^{-06}$ | -1 | 0.00021717  |
| 165631 | $4.91 \times 10^{-06}$ | -1 | 0.000218231 |
| 9750   | $5.16 \times 10^{-06}$ | -1 | 0.000228556 |
| 11184  | $5.20 \times 10^{-06}$ | -1 | 0.000229617 |
| 27430  | $5.23 \times 10^{-06}$ | -1 | 0.000230048 |
| 79724  | $5.24 \times 10^{-06}$ | 1  | 0.000230048 |
| 10148  | $5.32 \times 10^{-06}$ | -1 | 0.000232947 |
| 60559  | $5.36 \times 10^{-06}$ | -1 | 0.000234137 |
| 64135  | $5.41 \times 10^{-06}$ | -1 | 0.000235669 |
| 5272   | $5.74 \times 10^{-06}$ | -1 | 0.000249359 |
| 401494 | $5.82 \times 10^{-06}$ | -1 | 0.000252301 |
| 54757  | $5.92 \times 10^{-06}$ | -1 | 0.000255923 |
| 2207   | $6.02 \times 10^{-06}$ | -1 | 0.000259273 |
| 9881   | $6.04 \times 10^{-06}$ | -1 | 0.000259333 |
| 146722 | $6.33 \times 10^{-06}$ | -1 | 0.000271084 |
| 958    | $6.52 \times 10^{-06}$ | -1 | 0.000278485 |
| 1237   | $6.66 \times 10^{-06}$ | -1 | 0.000283062 |
| 29887  | $6.64 \times 10^{-06}$ | -1 | 0.000283062 |
| 923    | $6.77 \times 10^{-06}$ | -1 | 0.000287173 |
| 84868  | $6.86 \times 10^{-06}$ | -1 | 0.000290232 |
| 26228  | $6.88 \times 10^{-06}$ | -1 | 0.000290236 |
| 930    | $7.11 \times 10^{-06}$ | -1 | 0.000299063 |
| 3604   | $7.35 \times 10^{-06}$ | -1 | 0.000308162 |
| 64098  | $7.45 \times 10^{-06}$ | -1 | 0.000311741 |
| 3290   | $7.54 \times 10^{-06}$ | -1 | 0.000314791 |
| 917    | $7.98 \times 10^{-06}$ | -1 | 0.000332216 |
| 11274  | $8.00 \times 10^{-06}$ | -1 | 0.00033231  |

|        |                        |    |             |
|--------|------------------------|----|-------------|
| 81793  | $8.15 \times 10^{-06}$ | -1 | 0.000337526 |
| 2635   | $8.22 \times 10^{-06}$ | -1 | 0.000339399 |
| 90861  | $8.46 \times 10^{-06}$ | 1  | 0.000348493 |
| 116984 | $8.65 \times 10^{-06}$ | -1 | 0.000355523 |
| 9332   | $8.90 \times 10^{-06}$ | -1 | 0.000364822 |
| 89846  | $9.11 \times 10^{-06}$ | -1 | 0.000372352 |
| 713    | $9.47 \times 10^{-06}$ | -1 | 0.000386297 |
| 4790   | $9.62 \times 10^{-06}$ | -1 | 0.000391407 |
| 10261  | $9.71 \times 10^{-06}$ | -1 | 0.000393964 |
| 7305   | $9.92 \times 10^{-06}$ | -1 | 0.000401183 |
| 3087   | $1.00 \times 10^{-05}$ | -1 | 0.000404781 |
| 57585  | $1.04 \times 10^{-05}$ | 1  | 0.000416942 |
| 51393  | $1.04 \times 10^{-05}$ | -1 | 0.000417088 |
| 2113   | $1.04 \times 10^{-05}$ | -1 | 0.000417455 |
| 10260  | $1.05 \times 10^{-05}$ | -1 | 0.000418594 |
| 79413  | $1.05 \times 10^{-05}$ | -1 | 0.000419443 |
| 712    | $1.07 \times 10^{-05}$ | -1 | 0.000425488 |
| 6892   | $1.11 \times 10^{-05}$ | -1 | 0.000441407 |
| 11309  | $1.12 \times 10^{-05}$ | -1 | 0.000443697 |
| 4067   | $1.13 \times 10^{-05}$ | -1 | 0.000446031 |
| 9934   | $1.15 \times 10^{-05}$ | -1 | 0.000450713 |
| 200315 | $1.17 \times 10^{-05}$ | -1 | 0.000458693 |
| 81552  | $1.20 \times 10^{-05}$ | -1 | 0.000471793 |
| 196383 | $1.24 \times 10^{-05}$ | -1 | 0.000486325 |
| 8320   | $1.25 \times 10^{-05}$ | -1 | 0.000486339 |
| 3574   | $1.26 \times 10^{-05}$ | -1 | 0.000488529 |
| 56990  | $1.26 \times 10^{-05}$ | -1 | 0.000488529 |
| 597    | $1.27 \times 10^{-05}$ | -1 | 0.000491849 |
| 55707  | $1.29 \times 10^{-05}$ | -1 | 0.000496641 |
| 663    | $1.30 \times 10^{-05}$ | -1 | 0.000500948 |
| 51131  | $1.35 \times 10^{-05}$ | -1 | 0.000517503 |
| 718    | $1.38 \times 10^{-05}$ | -1 | 0.000528339 |
| 80183  | $1.44 \times 10^{-05}$ | -1 | 0.000550274 |
| 9695   | $1.45 \times 10^{-05}$ | -1 | 0.000551556 |
| 51665  | $1.51 \times 10^{-05}$ | 1  | 0.000572292 |
| 80008  | $1.51 \times 10^{-05}$ | -1 | 0.000572292 |
| 257144 | $1.51 \times 10^{-05}$ | -1 | 0.000572292 |
| 864    | $1.57 \times 10^{-05}$ | -1 | 0.000591215 |
| 1380   | $1.59 \times 10^{-05}$ | -1 | 0.000599837 |
| 6614   | $1.60 \times 10^{-05}$ | -1 | 0.000602579 |
| 8875   | $1.67 \times 10^{-05}$ | -1 | 0.000626531 |
| 567    | $1.79 \times 10^{-05}$ | -1 | 0.000668289 |
| 81030  | $1.80 \times 10^{-05}$ | -1 | 0.000673358 |

|        |                        |    |             |
|--------|------------------------|----|-------------|
| 89790  | $1.81 \times 10^{-05}$ | -1 | 0.000673358 |
| 9452   | $1.84 \times 10^{-05}$ | -1 | 0.000682719 |
| 2213   | $1.85 \times 10^{-05}$ | -1 | 0.000684399 |
| 51703  | $1.86 \times 10^{-05}$ | -1 | 0.000689632 |
| 55080  | $1.92 \times 10^{-05}$ | -1 | 0.00070874  |
| 170482 | $1.93 \times 10^{-05}$ | -1 | 0.000708953 |
| 58533  | $1.94 \times 10^{-05}$ | -1 | 0.000713958 |
| 8832   | $2.05 \times 10^{-05}$ | -1 | 0.000749748 |
| 81788  | $2.11 \times 10^{-05}$ | -1 | 0.000770146 |
| 84871  | $2.11 \times 10^{-05}$ | 1  | 0.000770146 |
| 10219  | $2.13 \times 10^{-05}$ | -1 | 0.000776845 |
| 64748  | $2.16 \times 10^{-05}$ | 1  | 0.000784916 |
| 9047   | $2.21 \times 10^{-05}$ | -1 | 0.000801182 |
| 1493   | $2.24 \times 10^{-05}$ | -1 | 0.00081019  |
| 3055   | $2.25 \times 10^{-05}$ | -1 | 0.000810543 |
| 51513  | $2.29 \times 10^{-05}$ | -1 | 0.000823507 |
| 3111   | $2.32 \times 10^{-05}$ | -1 | 0.000833045 |
| 84433  | $2.35 \times 10^{-05}$ | -1 | 0.000840375 |
| 124935 | $2.43 \times 10^{-05}$ | -1 | 0.000868511 |
| 7099   | $2.48 \times 10^{-05}$ | -1 | 0.000886184 |
| 64581  | $2.53 \times 10^{-05}$ | -1 | 0.000899429 |
| 340348 | $2.54 \times 10^{-05}$ | -1 | 0.000900283 |
| 2517   | $2.62 \times 10^{-05}$ | -1 | 0.000925849 |
| 84888  | $2.62 \times 10^{-05}$ | -1 | 0.000925849 |
| 1633   | $2.68 \times 10^{-05}$ | -1 | 0.000944647 |
| 5721   | $2.72 \times 10^{-05}$ | -1 | 0.000957965 |
| 961    | $2.81 \times 10^{-05}$ | -1 | 0.000982904 |
| 158830 | $2.80 \times 10^{-05}$ | -1 | 0.000982904 |
| 4277   | $2.84 \times 10^{-05}$ | -1 | 0.000991317 |
| 51296  | $2.92 \times 10^{-05}$ | -1 | 0.001016898 |
| 80709  | $2.97 \times 10^{-05}$ | -1 | 0.001033001 |
| 27240  | $2.99 \times 10^{-05}$ | -1 | 0.001038537 |
| 10225  | $3.02 \times 10^{-05}$ | -1 | 0.001044866 |
| 79961  | $3.02 \times 10^{-05}$ | -1 | 0.001044866 |
| 8542   | $3.05 \times 10^{-05}$ | -1 | 0.001050874 |
| 134429 | $3.06 \times 10^{-05}$ | -1 | 0.001053129 |
| 6688   | $3.12 \times 10^{-05}$ | -1 | 0.001071774 |
| 1731   | $3.21 \times 10^{-05}$ | -1 | 0.001100859 |
| 10235  | $3.27 \times 10^{-05}$ | -1 | 0.001117478 |
| 284021 | $3.29 \times 10^{-05}$ | -1 | 0.001124391 |
| 9450   | $3.33 \times 10^{-05}$ | -1 | 0.00113437  |
| 356    | $3.36 \times 10^{-05}$ | -1 | 0.001141509 |
| 272    | $3.39 \times 10^{-05}$ | -1 | 0.001150452 |

|        |                        |    |             |
|--------|------------------------|----|-------------|
| 10666  | $3.49 \times 10^{-05}$ | -1 | 0.001181527 |
| 940    | $3.56 \times 10^{-05}$ | -1 | 0.001203985 |
| 93233  | $3.58 \times 10^{-05}$ | 1  | 0.00120771  |
| 10659  | $3.63 \times 10^{-05}$ | -1 | 0.001219239 |
| 84824  | $3.70 \times 10^{-05}$ | -1 | 0.001241455 |
| 83986  | $3.73 \times 10^{-05}$ | 1  | 0.001248474 |
| 90634  | $3.74 \times 10^{-05}$ | -1 | 0.001249643 |
| 4208   | $3.88 \times 10^{-05}$ | -1 | 0.001295366 |
| 2999   | $3.92 \times 10^{-05}$ | -1 | 0.001301814 |
| 26270  | $3.92 \times 10^{-05}$ | -1 | 0.001301814 |
| 2622   | $4.01 \times 10^{-05}$ | 1  | 0.00132824  |
| 80896  | $4.14 \times 10^{-05}$ | -1 | 0.00136764  |
| 9308   | $4.23 \times 10^{-05}$ | -1 | 0.001394949 |
| 4033   | $4.26 \times 10^{-05}$ | -1 | 0.001403174 |
| 84253  | $4.34 \times 10^{-05}$ | 1  | 0.001425554 |
| 5777   | $4.36 \times 10^{-05}$ | -1 | 0.001428712 |
| 6546   | $4.36 \times 10^{-05}$ | -1 | 0.001428712 |
| 115704 | $4.38 \times 10^{-05}$ | 1  | 0.001431763 |
| 23361  | $4.57 \times 10^{-05}$ | 1  | 0.001489692 |
| 10287  | $4.63 \times 10^{-05}$ | -1 | 0.001506833 |
| 91137  | $4.67 \times 10^{-05}$ | -1 | 0.001517661 |
| 169355 | $4.74 \times 10^{-05}$ | -1 | 0.001537165 |
| 286336 | $4.76 \times 10^{-05}$ | -1 | 0.001539449 |
| 57169  | $4.83 \times 10^{-05}$ | -1 | 0.001558962 |
| 51167  | $4.95 \times 10^{-05}$ | -1 | 0.001595445 |
| 128346 | $5.03 \times 10^{-05}$ | -1 | 0.001616251 |
| 784    | $5.20 \times 10^{-05}$ | 1  | 0.001668292 |
| 3824   | $5.28 \times 10^{-05}$ | -1 | 0.001690215 |
| 50650  | $5.32 \times 10^{-05}$ | -1 | 0.001700871 |
| 51225  | $5.36 \times 10^{-05}$ | -1 | 0.00170297  |
| 127544 | $5.36 \times 10^{-05}$ | -1 | 0.00170297  |
| 347862 | $5.35 \times 10^{-05}$ | 1  | 0.00170297  |
| 55840  | $5.45 \times 10^{-05}$ | -1 | 0.001727212 |
| 6891   | $5.58 \times 10^{-05}$ | -1 | 0.001765952 |
| 3429   | $5.75 \times 10^{-05}$ | -1 | 0.001813697 |
| 4927   | $5.84 \times 10^{-05}$ | -1 | 0.001841076 |
| 6850   | $5.94 \times 10^{-05}$ | -1 | 0.001866694 |
| 154    | $6.15 \times 10^{-05}$ | -1 | 0.001930151 |
| 9021   | $6.33 \times 10^{-05}$ | -1 | 0.001982946 |
| 9636   | $6.43 \times 10^{-05}$ | -1 | 0.00201011  |
| 397    | $6.72 \times 10^{-05}$ | -1 | 0.002097281 |
| 1627   | $6.96 \times 10^{-05}$ | 1  | 0.002167863 |
| 710    | $7.13 \times 10^{-05}$ | -1 | 0.002215655 |

|        |                        |    |             |
|--------|------------------------|----|-------------|
| 29121  | $7.16 \times 10^{-05}$ | -1 | 0.00222216  |
| 197335 | $7.19 \times 10^{-05}$ | 1  | 0.00222435  |
| 3433   | $7.23 \times 10^{-05}$ | -1 | 0.002233736 |
| 2829   | $7.26 \times 10^{-05}$ | -1 | 0.00223959  |
| 8869   | $7.34 \times 10^{-05}$ | -1 | 0.002259333 |
| 3459   | $7.37 \times 10^{-05}$ | -1 | 0.002263672 |
| 5031   | $7.56 \times 10^{-05}$ | -1 | 0.002317893 |
| 316    | $7.62 \times 10^{-05}$ | -1 | 0.002331986 |
| 2908   | $7.68 \times 10^{-05}$ | -1 | 0.002346697 |
| 126364 | $7.85 \times 10^{-05}$ | -1 | 0.002393903 |
| 58515  | $8.14 \times 10^{-05}$ | -1 | 0.002476865 |
| 57674  | $8.81 \times 10^{-05}$ | -1 | 0.002673984 |
| 7570   | $8.83 \times 10^{-05}$ | -1 | 0.002675187 |
| 27090  | $8.86 \times 10^{-05}$ | -1 | 0.002680015 |
| 6356   | $8.94 \times 10^{-05}$ | -1 | 0.002698127 |
| 2212   | $8.98 \times 10^{-05}$ | -1 | 0.002701687 |
| 53831  | $8.98 \times 10^{-05}$ | -1 | 0.002701687 |
| 113230 | $9.10 \times 10^{-05}$ | 1  | 0.002730891 |
| 8797   | $9.15 \times 10^{-05}$ | -1 | 0.002742648 |
| 64747  | $9.22 \times 10^{-05}$ | -1 | 0.002756482 |
| 29760  | $9.30 \times 10^{-05}$ | -1 | 0.002776343 |
| 5341   | $9.41 \times 10^{-05}$ | -1 | 0.002799454 |
| 170954 | $9.40 \times 10^{-05}$ | -1 | 0.002799454 |
| 51465  | $9.47 \times 10^{-05}$ | -1 | 0.002811643 |
| 2358   | $9.51 \times 10^{-05}$ | -1 | 0.002819444 |
| 79770  | $9.61 \times 10^{-05}$ | -1 | 0.002841072 |
| 286410 | $9.65 \times 10^{-05}$ | -1 | 0.002849067 |
| 26034  | $9.69 \times 10^{-05}$ | -1 | 0.002856567 |
| 941    | $9.99 \times 10^{-05}$ | -1 | 0.002939816 |
| 5583   | 0.000100415            | -1 | 0.002940997 |
| 28959  | 0.000100429            | -1 | 0.002940997 |
| 147686 | 0.000100542            | 1  | 0.002940997 |
| 912    | 0.00010091             | -1 | 0.002946344 |
| 54518  | 0.000102446            | -1 | 0.002985724 |
| 5594   | 0.000105942            | -1 | 0.003081986 |
| 54531  | 0.000107987            | 1  | 0.003135749 |
| 23533  | 0.000109281            | -1 | 0.003167553 |
| 911    | 0.000109626            | -1 | 0.003171803 |
| 5371   | 0.000111757            | -1 | 0.003227581 |
| 51714  | 0.000113119            | -1 | 0.00326103  |
| 64744  | 0.000113704            | -1 | 0.003271979 |
| 5993   | 0.000114285            | -1 | 0.003282762 |
| 240    | 0.000116869            | -1 | 0.003347961 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 4242   | 0.000116975 | -1 | 0.003347961 |
| 7124   | 0.000117838 | -1 | 0.003366623 |
| 7185   | 0.000118395 | -1 | 0.003369763 |
| 30817  | 0.000118794 | -1 | 0.003369763 |
| 147685 | 0.000118563 | 1  | 0.003369763 |
| 202309 | 0.000118788 | -1 | 0.003369763 |
| 9435   | 0.000119612 | -1 | 0.00338694  |
| 115207 | 0.000121189 | -1 | 0.003425518 |
| 4863   | 0.000123041 | -1 | 0.003471716 |
| 54857  | 0.000124983 | 1  | 0.003520288 |
| 64285  | 0.000125523 | 1  | 0.00352926  |
| 140766 | 0.000126292 | 1  | 0.003544636 |
| 114879 | 0.000127473 | 1  | 0.003571488 |
| 5734   | 0.000128135 | -1 | 0.003583721 |
| 84343  | 0.000130987 | -1 | 0.003657078 |
| 9459   | 0.000131587 | -1 | 0.0036674   |
| 151556 | 0.000131825 | -1 | 0.003667629 |
| 998    | 0.000132298 | -1 | 0.003674392 |
| 51699  | 0.000134053 | -1 | 0.003712277 |
| 64115  | 0.000134128 | -1 | 0.003712277 |
| 9976   | 0.000138844 | -1 | 0.003836135 |
| 1540   | 0.000140145 | -1 | 0.003865378 |
| 9820   | 0.000142004 | 1  | 0.003909882 |
| 84309  | 0.000143275 | 1  | 0.003938099 |
| 10019  | 0.000146043 | -1 | 0.003993523 |
| 203228 | 0.000145854 | -1 | 0.003993523 |
| 326624 | 0.000145892 | -1 | 0.003993523 |
| 5368   | 0.000147505 | -1 | 0.004026575 |
| 54103  | 0.000150019 | -1 | 0.004088214 |
| 160364 | 0.000153446 | -1 | 0.004174471 |
| 716    | 0.000156436 | -1 | 0.004248554 |
| 50999  | 0.000158249 | -1 | 0.004290485 |
| 9789   | 0.000159132 | -1 | 0.004307101 |
| 23373  | 0.000161568 | 1  | 0.004362165 |
| 92906  | 0.000161714 | -1 | 0.004362165 |
| 7832   | 0.000163449 | -1 | 0.00440154  |
| 2767   | 0.000166222 | 1  | 0.004468666 |
| 100    | 0.000168278 | -1 | 0.004516296 |
| 8676   | 0.000168708 | -1 | 0.004520241 |
| 103    | 0.000169547 | -1 | 0.004535099 |
| 5623   | 0.000170298 | 1  | 0.004547561 |
| 114790 | 0.000172235 | 1  | 0.004591585 |
| 144404 | 0.000172872 | 1  | 0.004600879 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 8558   | 0.0001733   | 1  | 0.004604582 |
| 102    | 0.000175104 | -1 | 0.004644775 |
| 10042  | 0.000176158 | 1  | 0.00466498  |
| 51135  | 0.000176811 | -1 | 0.004674493 |
| 55829  | 0.000180335 | -1 | 0.004759772 |
| 2975   | 0.000183557 | 1  | 0.004836814 |
| 1850   | 0.000184884 | 1  | 0.004863738 |
| 79903  | 0.000188449 | 1  | 0.00494936  |
| 3140   | 0.000191399 | -1 | 0.005018552 |
| 2350   | 0.000192049 | -1 | 0.00502732  |
| 6252   | 0.000193473 | -1 | 0.005056302 |
| 54918  | 0.000195219 | -1 | 0.005085266 |
| 163154 | 0.000195085 | 1  | 0.005085266 |
| 9235   | 0.000198866 | -1 | 0.005146626 |
| 10010  | 0.000198222 | -1 | 0.005146626 |
| 10388  | 0.000198342 | 1  | 0.005146626 |
| 84333  | 0.000198695 | -1 | 0.005146626 |
| 4261   | 0.000200111 | -1 | 0.005170448 |
| 284306 | 0.000202105 | 1  | 0.005213512 |
| 6932   | 0.000203916 | -1 | 0.005251755 |
| 684    | 0.00020493  | -1 | 0.005260864 |
| 6357   | 0.000204737 | -1 | 0.005260864 |
| 1535   | 0.000207572 | -1 | 0.00531158  |
| 8631   | 0.000207355 | -1 | 0.00531158  |
| 3687   | 0.000209817 | -1 | 0.005360424 |
| 9806   | 0.000210785 | -1 | 0.005376541 |
| 7779   | 0.000211661 | -1 | 0.005384188 |
| 8831   | 0.00021176  | 1  | 0.005384188 |
| 8996   | 0.000212616 | 1  | 0.005397338 |
| 7703   | 0.000214202 | 1  | 0.005428939 |
| 4833   | 0.000215892 | 1  | 0.005445817 |
| 23060  | 0.000215538 | 1  | 0.005445817 |
| 23253  | 0.000215867 | -1 | 0.005445817 |
| 4794   | 0.000218557 | -1 | 0.005504325 |
| 9266   | 0.000220107 | 1  | 0.005534626 |
| 1512   | 0.000222517 | -1 | 0.005568864 |
| 7941   | 0.000222444 | -1 | 0.005568864 |
| 91937  | 0.000221963 | -1 | 0.005568864 |
| 2958   | 0.000223524 | -1 | 0.005585295 |
| 255783 | 0.000225152 | 1  | 0.005617181 |
| 971    | 0.000229899 | -1 | 0.005726644 |
| 56133  | 0.000231227 | 1  | 0.005750746 |
| 640    | 0.000233654 | -1 | 0.005802047 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 129531 | 0.000235121 | -1 | 0.005829382 |
| 3717   | 0.000237308 | -1 | 0.005874473 |
| 9894   | 0.000238841 | 1  | 0.005897286 |
| 120892 | 0.000238969 | -1 | 0.005897286 |
| 4189   | 0.000242375 | -1 | 0.005972091 |
| 3726   | 0.000260605 | -1 | 0.006411366 |
| 340061 | 0.000261063 | -1 | 0.00641274  |
| 6366   | 0.000262708 | -1 | 0.006443209 |
| 283638 | 0.000263171 | 1  | 0.006444651 |
| 4690   | 0.000267009 | -1 | 0.006519409 |
| 10911  | 0.000267041 | -1 | 0.006519409 |
| 81553  | 0.000269203 | -1 | 0.00655372  |
| 85315  | 0.000269269 | -1 | 0.00655372  |
| 3559   | 0.000269875 | -1 | 0.006558465 |
| 64919  | 0.000273136 | -1 | 0.006627591 |
| 714    | 0.000274583 | -1 | 0.006652593 |
| 8743   | 0.000275761 | -1 | 0.006670996 |
| 260436 | 0.000276226 | -1 | 0.006672113 |
| 1514   | 0.000276939 | -1 | 0.006679207 |
| 5791   | 0.000280171 | -1 | 0.006746947 |
| 6646   | 0.000283536 | -1 | 0.006807434 |
| 285237 | 0.000283153 | -1 | 0.006807434 |
| 9028   | 0.00028508  | 1  | 0.006834205 |
| 30850  | 0.000286602 | 1  | 0.006860364 |
| 10550  | 0.000287759 | -1 | 0.00687774  |
| 51303  | 0.000290798 | -1 | 0.006939969 |
| 54504  | 0.000294015 | -1 | 0.007006261 |
| 7318   | 0.000297125 | -1 | 0.007069809 |
| 7760   | 0.000297778 | 1  | 0.007074772 |
| 387882 | 0.000299707 | -1 | 0.007110021 |
| 29802  | 0.000302325 | -1 | 0.007161453 |
| 11182  | 0.000303187 | -1 | 0.00717123  |
| 4329   | 0.000304838 | 1  | 0.007199593 |
| 6804   | 0.000306297 | 1  | 0.007217732 |
| 23180  | 0.000306511 | -1 | 0.007217732 |
| 10020  | 0.000308515 | -1 | 0.007254201 |
| 55233  | 0.000312946 | -1 | 0.007347553 |
| 64855  | 0.0003168   | 1  | 0.007427094 |
| 23368  | 0.000327161 | 1  | 0.007658743 |
| 2268   | 0.000331531 | -1 | 0.007749669 |
| 4049   | 0.000332284 | -1 | 0.007755891 |
| 10326  | 0.000334469 | -1 | 0.007795465 |
| 9742   | 0.000338855 | 1  | 0.007886168 |



|        |             |    |             |
|--------|-------------|----|-------------|
| 1116   | 0.000340057 | -1 | 0.007902611 |
| 8837   | 0.00034145  | -1 | 0.007923421 |
| 51735  | 0.000342341 | -1 | 0.007932568 |
| 639    | 0.000345042 | -1 | 0.007983538 |
| 8934   | 0.000348568 | -1 | 0.00804179  |
| 84875  | 0.00034827  | -1 | 0.00804179  |
| 22859  | 0.000351634 | 1  | 0.00808521  |
| 23295  | 0.000352041 | 1  | 0.00808521  |
| 79368  | 0.000352479 | -1 | 0.00808521  |
| 80380  | 0.000351816 | -1 | 0.00808521  |
| 5027   | 0.000354685 | -1 | 0.008124126 |
| 3563   | 0.000361457 | -1 | 0.008267352 |
| 10161  | 0.000364089 | -1 | 0.008303722 |
| 54851  | 0.00036382  | -1 | 0.008303722 |
| 7454   | 0.000365599 | -1 | 0.00832626  |
| 57580  | 0.000368063 | -1 | 0.00835868  |
| 92797  | 0.000368071 | -1 | 0.00835868  |
| 50619  | 0.000370522 | -1 | 0.008370235 |
| 51754  | 0.00037068  | 1  | 0.008370235 |
| 57717  | 0.000369927 | 1  | 0.008370235 |
| 84969  | 0.000369148 | -1 | 0.008370235 |
| 10155  | 0.000378399 | 1  | 0.008532443 |
| 23627  | 0.000382131 | 1  | 0.008604433 |
| 124401 | 0.000385832 | 1  | 0.008675496 |
| 57699  | 0.00038855  | -1 | 0.008724326 |
| 9686   | 0.000389462 | 1  | 0.008732499 |
| 57677  | 0.000391363 | 1  | 0.008762798 |
| 27319  | 0.000397561 | -1 | 0.008889092 |
| 3223   | 0.000402968 | 1  | 0.008974419 |
| 4855   | 0.000403029 | 1  | 0.008974419 |
| 23138  | 0.000403066 | 1  | 0.008974419 |
| 55332  | 0.00040733  | -1 | 0.009056692 |
| 3631   | 0.000409273 | -1 | 0.00908722  |
| 5023   | 0.000412942 | -1 | 0.009155948 |
| 83440  | 0.000420355 | -1 | 0.009307358 |
| 231    | 0.000422282 | -1 | 0.00931749  |
| 1877   | 0.000422566 | 1  | 0.00931749  |
| 6916   | 0.000421675 | -1 | 0.00931749  |
| 149628 | 0.000426603 | -1 | 0.009393519 |
| 9466   | 0.000427902 | -1 | 0.009409132 |
| 5098   | 0.000432021 | 1  | 0.009486601 |
| 259197 | 0.00043398  | -1 | 0.009516515 |
| 83758  | 0.000435541 | -1 | 0.009537637 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 3340   | 0.000436703 | 1  | 0.009549958 |
| 92749  | 0.000443325 | 1  | 0.009681482 |
| 10536  | 0.000447656 | 1  | 0.009762699 |
| 8605   | 0.000448394 | -1 | 0.009765426 |
| 6480   | 0.000450525 | -1 | 0.009798454 |
| 219699 | 0.000456544 | 1  | 0.009915845 |
| 90529  | 0.000458063 | 1  | 0.009935284 |
| 1240   | 0.000458723 | -1 | 0.009936097 |
| 7249   | 0.000462839 | 1  | 0.010011635 |
| 26002  | 0.000467237 | -1 | 0.010093069 |
| 780    | 0.000469823 | 1  | 0.010135207 |
| 112476 | 0.00047651  | 1  | 0.010265581 |
| 26063  | 0.000480441 | 1  | 0.010336285 |
| 1992   | 0.000482877 | -1 | 0.010374686 |
| 64805  | 0.00048781  | -1 | 0.010466576 |
| 23347  | 0.000491285 | -1 | 0.010526965 |
| 51348  | 0.000493814 | -1 | 0.010566947 |
| 2995   | 0.000495233 | -1 | 0.010583118 |
| 728294 | 0.00049859  | 1  | 0.010640601 |
| 3796   | 0.000504309 | -1 | 0.010748254 |
| 55509  | 0.000506423 | -1 | 0.010778896 |
| 1959   | 0.000511751 | -1 | 0.010873514 |
| 6529   | 0.000512232 | 1  | 0.010873514 |
| 440193 | 0.000515231 | -1 | 0.010922633 |
| 715    | 0.000517222 | -1 | 0.010950276 |
| 23396  | 0.000530419 | 1  | 0.011199927 |
| 150365 | 0.000530123 | -1 | 0.011199927 |
| 953    | 0.000533209 | -1 | 0.011238868 |
| 3299   | 0.000533674 | 1  | 0.011238868 |
| 23484  | 0.000534592 | -1 | 0.01124336  |
| 2322   | 0.000546946 | -1 | 0.011488029 |
| 23491  | 0.000549414 | 1  | 0.011524676 |
| 4792   | 0.000550984 | -1 | 0.011542425 |
| 945    | 0.000552754 | -1 | 0.011564316 |
| 843    | 0.000554332 | -1 | 0.011582123 |
| 29126  | 0.000556024 | -1 | 0.011602274 |
| 55573  | 0.000558544 | -1 | 0.011639625 |
| 5684   | 0.000561349 | -1 | 0.011667563 |
| 56925  | 0.00056087  | -1 | 0.011667563 |
| 4038   | 0.000565032 | 1  | 0.011713581 |
| 5639   | 0.000564415 | 1  | 0.011713581 |
| 9771   | 0.000566352 | 1  | 0.011725686 |
| 9603   | 0.000574787 | -1 | 0.01186951  |

|        |             |    |             |
|--------|-------------|----|-------------|
| 79957  | 0.000574754 | 1  | 0.01186951  |
| 929    | 0.000578538 | -1 | 0.011931514 |
| 8514   | 0.000581534 | -1 | 0.011977795 |
| 57168  | 0.000583799 | -1 | 0.012008927 |
| 2794   | 0.00058501  | 1  | 0.012018339 |
| 135112 | 0.000590381 | -1 | 0.012113059 |
| 3225   | 0.000592612 | 1  | 0.012143206 |
| 83463  | 0.000594064 | 1  | 0.012157336 |
| 79442  | 0.00060114  | -1 | 0.012273539 |
| 83862  | 0.000601282 | 1  | 0.012273539 |
| 5610   | 0.000603752 | -1 | 0.012308203 |
| 6166   | 0.000609927 | -1 | 0.012387657 |
| 57730  | 0.000609981 | -1 | 0.012387657 |
| 79931  | 0.000608998 | -1 | 0.012387657 |
| 6776   | 0.000615072 | -1 | 0.012475154 |
| 10154  | 0.0006162   | -1 | 0.01248216  |
| 64714  | 0.000621736 | 1  | 0.012578328 |
| 84191  | 0.0006232   | -1 | 0.012591964 |
| 55365  | 0.000628438 | -1 | 0.012681729 |
| 5464   | 0.000635594 | -1 | 0.012809919 |
| 84080  | 0.000636693 | 1  | 0.012815863 |
| 5243   | 0.000641076 | -1 | 0.012887805 |
| 2664   | 0.00064642  | 1  | 0.012975579 |
| 9844   | 0.00064707  | -1 | 0.012975579 |
| 8912   | 0.000651959 | 1  | 0.013057205 |
| 944    | 0.000654909 | -1 | 0.013099827 |
| 9840   | 0.00065915  | -1 | 0.013151384 |
| 51667  | 0.000658559 | -1 | 0.013151384 |
| 79969  | 0.000659962 | 1  | 0.013151384 |
| 10628  | 0.000664308 | -1 | 0.01322148  |
| 135948 | 0.000666062 | 1  | 0.01323985  |
| 7294   | 0.000672549 | -1 | 0.013335541 |
| 56670  | 0.000672253 | -1 | 0.013335541 |
| 965    | 0.000677192 | -1 | 0.013410934 |
| 403    | 0.000678323 | 1  | 0.013416666 |
| 23345  | 0.000684884 | -1 | 0.013529651 |
| 259307 | 0.000688609 | -1 | 0.013586401 |
| 57465  | 0.000689605 | 1  | 0.013589229 |
| 6311   | 0.000697655 | 1  | 0.013730874 |
| 115004 | 0.000699321 | -1 | 0.013746699 |
| 142678 | 0.000707334 | 1  | 0.013887087 |
| 51148  | 0.0007285   | 1  | 0.014285056 |
| 283373 | 0.000730719 | 1  | 0.014310953 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 55230  | 0.000733006 | 1  | 0.014338143 |
| 3623   | 0.000736103 | 1  | 0.014381062 |
| 153562 | 0.000738433 | 1  | 0.014408943 |
| 2289   | 0.000747193 | -1 | 0.014562043 |
| 26012  | 0.000752677 | 1  | 0.014651016 |
| 270    | 0.000761481 | -1 | 0.014755413 |
| 1056   | 0.000761094 | 1  | 0.014755413 |
| 4836   | 0.000761743 | -1 | 0.014755413 |
| 84939  | 0.000758971 | 1  | 0.014755413 |
| 54331  | 0.000767361 | -1 | 0.014846209 |
| 54832  | 0.000769672 | -1 | 0.014872861 |
| 11099  | 0.000771277 | 1  | 0.014885829 |
| 1123   | 0.000779654 | -1 | 0.015029325 |
| 9569   | 0.000789892 | 1  | 0.015189931 |
| 92595  | 0.000789349 | 1  | 0.015189931 |
| 79003  | 0.000797013 | -1 | 0.015283136 |
| 83549  | 0.000796425 | 1  | 0.015283136 |
| 144453 | 0.000797614 | 1  | 0.015283136 |
| 7293   | 0.000798578 | -1 | 0.015283238 |
| 163033 | 0.000800583 | 1  | 0.015303228 |
| 1901   | 0.000802217 | -1 | 0.015316107 |
| 333929 | 0.000805826 | -1 | 0.015366606 |
| 4647   | 0.000811852 | -1 | 0.015426161 |
| 25759  | 0.000810937 | 1  | 0.015426161 |
| 87769  | 0.000811798 | -1 | 0.015426161 |
| 138639 | 0.00081333  | 1  | 0.015435834 |
| 55803  | 0.000817043 | -1 | 0.015487873 |
| 246744 | 0.000818884 | 1  | 0.015504328 |
| 57121  | 0.000822794 | -1 | 0.015559887 |
| 375757 | 0.000824944 | 1  | 0.015582066 |
| 26051  | 0.000842036 | -1 | 0.015886073 |
| 6398   | 0.00084517  | -1 | 0.015926359 |
| 8013   | 0.000859762 | -1 | 0.016182201 |
| 11094  | 0.000865792 | 1  | 0.01627648  |
| 2014   | 0.000870881 | -1 | 0.016333621 |
| 25837  | 0.000869904 | 1  | 0.016333621 |
| 84674  | 0.000876088 | -1 | 0.016392717 |
| 195827 | 0.000875107 | -1 | 0.016392717 |
| 51676  | 0.000878015 | -1 | 0.016409507 |
| 51157  | 0.000880863 | 1  | 0.01643884  |
| 84636  | 0.000881646 | -1 | 0.01643884  |
| 4064   | 0.000884793 | -1 | 0.016478235 |
| 90993  | 0.00088699  | 1  | 0.016499879 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 5918   | 0.000890885 | -1 | 0.016553011 |
| 836    | 0.000896521 | -1 | 0.016626064 |
| 2889   | 0.000896902 | -1 | 0.016626064 |
| 7091   | 0.000904163 | -1 | 0.016741194 |
| 23270  | 0.000906511 | 1  | 0.016765188 |
| 80301  | 0.000915812 | -1 | 0.016917583 |
| 7422   | 0.000925155 | 1  | 0.017046728 |
| 23564  | 0.000926011 | 1  | 0.017046728 |
| 51096  | 0.000924717 | -1 | 0.017046728 |
| 26127  | 0.000927883 | -1 | 0.017061497 |
| 147650 | 0.000932387 | 1  | 0.017124562 |
| 4293   | 0.000934617 | 1  | 0.017145755 |
| 11168  | 0.000936036 | -1 | 0.017152061 |
| 9318   | 0.000945928 | -1 | 0.017313423 |
| 6748   | 0.000952245 | -1 | 0.01736176  |
| 10101  | 0.000952926 | 1  | 0.01736176  |
| 22888  | 0.000949833 | 1  | 0.01736176  |
| 257101 | 0.000952535 | -1 | 0.01736176  |
| 54491  | 0.000968822 | -1 | 0.017628837 |
| 54985  | 0.000970902 | 1  | 0.017628837 |
| 124044 | 0.000970358 | 1  | 0.017628837 |
| 9175   | 0.000982383 | 1  | 0.017817002 |
| 926    | 0.000990364 | -1 | 0.017932269 |
| 643866 | 0.000990988 | -1 | 0.017932269 |
| 4062   | 0.000994071 | 1  | 0.017947321 |
| 10333  | 0.000993233 | -1 | 0.017947321 |
| 1796   | 0.000996487 | -1 | 0.017970587 |
| 10227  | 0.001000887 | 1  | 0.01802954  |
| 55297  | 0.001004744 | -1 | 0.018078592 |
| 2672   | 0.00100661  | -1 | 0.01809175  |
| 29903  | 0.001010267 | 1  | 0.018137027 |
| 64760  | 0.001012202 | 1  | 0.01815132  |
| 6354   | 0.001017501 | -1 | 0.018205381 |
| 51744  | 0.001017204 | -1 | 0.018205381 |
| 387763 | 0.001023102 | 1  | 0.018285086 |
| 6091   | 0.001026495 | -1 | 0.018304672 |
| 144402 | 0.001026293 | -1 | 0.018304672 |
| 7321   | 0.001040892 | -1 | 0.018540668 |
| 112616 | 0.001042173 | -1 | 0.018542765 |
| 56123  | 0.001054269 | 1  | 0.018716215 |
| 91523  | 0.001053829 | -1 | 0.018716215 |
| 64755  | 0.001057116 | 1  | 0.018745876 |
| 933    | 0.001072617 | -1 | 0.018999615 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 5524   | 0.001079491 | 1  | 0.019100157 |
| 54910  | 0.001093445 | 1  | 0.019325606 |
| 8698   | 0.001099354 | -1 | 0.019364363 |
| 9683   | 0.001099549 | -1 | 0.019364363 |
| 53405  | 0.001098636 | -1 | 0.019364363 |
| 150465 | 0.001100496 | 1  | 0.019364363 |
| 122622 | 0.001112931 | 1  | 0.019561576 |
| 83641  | 0.001122303 | -1 | 0.019704567 |
| 11067  | 0.001125396 | -1 | 0.019715448 |
| 137835 | 0.001125022 | -1 | 0.019715448 |
| 6493   | 0.001127586 | 1  | 0.019732144 |
| 25799  | 0.0011307   | 1  | 0.019764938 |
| 489    | 0.001135085 | -1 | 0.019816749 |
| 6525   | 0.00113615  | 1  | 0.019816749 |
| 9039   | 0.001137945 | -1 | 0.01982636  |
| 10978  | 0.001143075 | -1 | 0.019893991 |
| 5538   | 0.001156373 | -1 | 0.020081592 |
| 124535 | 0.001155313 | -1 | 0.020081592 |
| 9772   | 0.001158176 | 1  | 0.020091011 |
| 113510 | 0.001169639 | -1 | 0.020267808 |
| 3606   | 0.001191032 | -1 | 0.020616101 |
| 23524  | 0.00119978  | 1  | 0.020744996 |
| 114294 | 0.001202121 | -1 | 0.02076296  |
| 5906   | 0.001207861 | -1 | 0.02083952  |
| 2992   | 0.001217917 | -1 | 0.020990301 |
| 8226   | 0.001227724 | -1 | 0.021136475 |
| 2326   | 0.001230266 | -1 | 0.021146848 |
| 84627  | 0.001230979 | 1  | 0.021146848 |
| 3553   | 0.001234168 | -1 | 0.021178798 |
| 84230  | 0.001248452 | -1 | 0.021400876 |
| 51310  | 0.001252422 | 1  | 0.021445872 |
| 11247  | 0.001253851 | 1  | 0.021447316 |
| 284723 | 0.001260147 | 1  | 0.021531896 |
| 55768  | 0.001262897 | -1 | 0.02155578  |
| 54778  | 0.001269835 | -1 | 0.021627887 |
| 124093 | 0.001268522 | 1  | 0.021627887 |
| 7349   | 0.001271576 | 1  | 0.021634426 |
| 80331  | 0.001275891 | 1  | 0.02168471  |
| 30844  | 0.001282316 | -1 | 0.021747528 |
| 55911  | 0.001281998 | -1 | 0.021747528 |
| 10367  | 0.001287421 | 1  | 0.02181091  |
| 1378   | 0.001295525 | -1 | 0.021924897 |
| 7852   | 0.001299104 | -1 | 0.021938891 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 8776   | 0.001298867 | -1 | 0.021938891 |
| 27128  | 0.001304583 | -1 | 0.021988487 |
| 375387 | 0.001304799 | -1 | 0.021988487 |
| 126298 | 0.001306332 | 1  | 0.02199107  |
| 1353   | 0.001311035 | -1 | 0.022046964 |
| 5612   | 0.001335341 | -1 | 0.022432044 |
| 5863   | 0.001337223 | 1  | 0.022440014 |
| 50509  | 0.001343467 | 1  | 0.022521079 |
| 79156  | 0.001345845 | -1 | 0.022537249 |
| 10892  | 0.001351179 | -1 | 0.022602824 |
| 5195   | 0.001358149 | 1  | 0.022695616 |
| 84878  | 0.001360959 | 1  | 0.022700095 |
| 115703 | 0.001361265 | 1  | 0.022700095 |
| 6320   | 0.00137197  | 1  | 0.022830834 |
| 59269  | 0.001371889 | -1 | 0.022830834 |
| 26031  | 0.001374743 | -1 | 0.022853135 |
| 4326   | 0.001376685 | 1  | 0.02286158  |
| 1857   | 0.00138309  | 1  | 0.022944045 |
| 3709   | 0.001387175 | -1 | 0.02298789  |
| 29800  | 0.001392926 | 1  | 0.02305921  |
| 9709   | 0.001397652 | -1 | 0.023105665 |
| 79651  | 0.00139863  | -1 | 0.023105665 |
| 118429 | 0.001408018 | -1 | 0.023236676 |
| 92106  | 0.001436052 | -1 | 0.023674813 |
| 26277  | 0.001438658 | -1 | 0.023693274 |
| 115950 | 0.001443209 | 1  | 0.023743696 |
| 6999   | 0.001467923 | -1 | 0.024125387 |
| 4012   | 0.001480959 | -1 | 0.024314569 |
| 57486  | 0.001485784 | 1  | 0.024368697 |
| 84518  | 0.001505469 | 1  | 0.024666178 |
| 1060   | 0.001512002 | -1 | 0.024747781 |
| 1583   | 0.001520654 | -1 | 0.024863864 |
| 26048  | 0.001540734 | 1  | 0.025166381 |
| 7052   | 0.001553025 | -1 | 0.025341165 |
| 55665  | 0.001566331 | 1  | 0.025506077 |
| 493829 | 0.001566048 | 1  | 0.025506077 |
| 64788  | 0.001569632 | 1  | 0.025507728 |
| 146439 | 0.001568258 | 1  | 0.025507728 |
| 140710 | 0.001578065 | 1  | 0.025618645 |
| 23263  | 0.00158405  | 1  | 0.025663536 |
| 64428  | 0.001583199 | 1  | 0.025663536 |
| 2537   | 0.001607592 | -1 | 0.025992127 |
| 7538   | 0.001606454 | -1 | 0.025992127 |

|           |             |    |             |
|-----------|-------------|----|-------------|
| 3004      | 0.001610551 | -1 | 0.026013582 |
| 80196     | 0.001631022 | -1 | 0.026290959 |
| 81615     | 0.001629591 | -1 | 0.026290959 |
| 6866      | 0.001634178 | 1  | 0.026315215 |
| 11082     | 0.001636404 | 1  | 0.026324478 |
| 7047      | 0.001657344 | 1  | 0.026607625 |
| 27152     | 0.001656833 | 1  | 0.026607625 |
| 8459      | 0.001675961 | -1 | 0.026879447 |
| 6793      | 0.001678711 | -1 | 0.026896492 |
| 4121      | 0.001688193 | -1 | 0.027021262 |
| 25801     | 0.001694026 | -1 | 0.027060284 |
| 60494     | 0.001692339 | 1  | 0.027060284 |
| 5724      | 0.001700589 | -1 | 0.02713792  |
| 310       | 0.001705705 | -1 | 0.027192355 |
| 55026     | 0.001717291 | -1 | 0.027349697 |
| 8541      | 0.001728825 | 1  | 0.027505909 |
| 23139     | 0.00173113  | 1  | 0.027515123 |
| 57552     | 0.001741284 | -1 | 0.027621436 |
| 115761    | 0.001740269 | -1 | 0.027621436 |
| 9564      | 0.001746016 | 1  | 0.027668972 |
| 80095     | 0.001763421 | 1  | 0.027917037 |
| 11235     | 0.001775725 | -1 | 0.028056099 |
| 92154     | 0.001773976 | 1  | 0.028056099 |
| 11064     | 0.001787445 | -1 | 0.028213315 |
| 10957     | 0.00179595  | -1 | 0.028319522 |
| 203522    | 0.001813069 | -1 | 0.028561217 |
| 79369     | 0.00183143  | 1  | 0.028821978 |
| 7469      | 0.001835071 | 1  | 0.028850786 |
| 126069    | 0.001842606 | 1  | 0.028940715 |
| 5912      | 0.001846598 | -1 | 0.028974868 |
| 10197     | 0.00185129  | -1 | 0.029019932 |
| 10062     | 0.001862277 | -1 | 0.029106302 |
| 57116     | 0.00185984  | -1 | 0.029106302 |
| 164091    | 0.001860631 | 1  | 0.029106302 |
| 129563    | 0.001865923 | 1  | 0.029134708 |
| 113763    | 0.001869656 | -1 | 0.029164441 |
| 100506540 | 0.001879842 | 1  | 0.029294663 |
| 2342      | 0.001884269 | 1  | 0.029334977 |
| 6666      | 0.001886406 | 1  | 0.029339591 |
| 27072     | 0.001902476 | 1  | 0.029560698 |
| 4753      | 0.001904877 | -1 | 0.029569181 |
| 10800     | 0.001919558 | -1 | 0.029739155 |
| 23471     | 0.001919088 | -1 | 0.029739155 |



|        |             |    |             |
|--------|-------------|----|-------------|
| 5745   | 0.001924864 | 1  | 0.029786995 |
| 81848  | 0.001926383 | 1  | 0.029786995 |
| 81622  | 0.001929717 | -1 | 0.029809635 |
| 391    | 0.001937924 | -1 | 0.029885857 |
| 6508   | 0.0019384   | 1  | 0.029885857 |
| 79874  | 0.00194976  | 1  | 0.030002974 |
| 85302  | 0.001948139 | 1  | 0.030002974 |
| 51170  | 0.001953282 | -1 | 0.030003356 |
| 54897  | 0.001953549 | 1  | 0.030003356 |
| 50618  | 0.001957893 | -1 | 0.030041132 |
| 55893  | 0.001982311 | 1  | 0.030358255 |
| 57513  | 0.00198237  | 1  | 0.030358255 |
| 84717  | 0.001996407 | 1  | 0.030543877 |
| 6035   | 0.002024163 | -1 | 0.030938836 |
| 29992  | 0.002027279 | -1 | 0.030956782 |
| 146540 | 0.002058037 | 1  | 0.031396385 |
| 6386   | 0.002079461 | -1 | 0.031692892 |
| 2997   | 0.002090697 | 1  | 0.031833714 |
| 427    | 0.002098244 | -1 | 0.03191814  |
| 5007   | 0.002109487 | -1 | 0.032058575 |
| 9420   | 0.002118901 | -1 | 0.032170978 |
| 4200   | 0.002137767 | -1 | 0.032396774 |
| 9023   | 0.002137838 | -1 | 0.032396774 |
| 2959   | 0.002148942 | -1 | 0.032503263 |
| 93663  | 0.002147195 | -1 | 0.032503263 |
| 93185  | 0.002157845 | 1  | 0.032576096 |
| 197258 | 0.002156934 | 1  | 0.032576096 |
| 56126  | 0.00216653  | 1  | 0.032676274 |
| 292    | 0.002172034 | -1 | 0.032728323 |
| 3682   | 0.002183601 | -1 | 0.032871543 |
| 4354   | 0.002202215 | -1 | 0.03308926  |
| 55769  | 0.002201914 | 1  | 0.03308926  |
| 5199   | 0.002205363 | -1 | 0.033095826 |
| 10133  | 0.002206804 | -1 | 0.033095826 |
| 41     | 0.002209108 | 1  | 0.033099247 |
| 26000  | 0.002219049 | 1  | 0.033185816 |
| 128611 | 0.002218571 | -1 | 0.033185816 |
| 3101   | 0.002225693 | -1 | 0.033253982 |
| 5547   | 0.002246391 | -1 | 0.033531799 |
| 116236 | 0.002260073 | -1 | 0.033704473 |
| 10479  | 0.00227052  | -1 | 0.033828631 |
| 409    | 0.002273518 | -1 | 0.033841661 |
| 1389   | 0.002280818 | -1 | 0.033841707 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 53834  | 0.002281198 | 1  | 0.033841707 |
| 65220  | 0.002282012 | -1 | 0.033841707 |
| 89932  | 0.002279054 | -1 | 0.033841707 |
| 94039  | 0.002285055 | -1 | 0.033855343 |
| 25780  | 0.002292545 | -1 | 0.033934773 |
| 80724  | 0.002303251 | 1  | 0.034061624 |
| 220213 | 0.002307585 | -1 | 0.034094081 |
| 25797  | 0.002312559 | -1 | 0.03413594  |
| 27095  | 0.002320637 | -1 | 0.034223497 |
| 2532   | 0.002325503 | -1 | 0.034263551 |
| 2710   | 0.00235307  | -1 | 0.034368479 |
| 5228   | 0.002341496 | 1  | 0.034368479 |
| 7593   | 0.002353738 | 1  | 0.034368479 |
| 9402   | 0.002346851 | -1 | 0.034368479 |
| 23247  | 0.002354183 | 1  | 0.034368479 |
| 79641  | 0.002352986 | 1  | 0.034368479 |
| 81627  | 0.002341614 | -1 | 0.034368479 |
| 85441  | 0.002338972 | -1 | 0.034368479 |
| 115352 | 0.002346417 | -1 | 0.034368479 |
| 132160 | 0.002336724 | -1 | 0.034368479 |
| 6362   | 0.002361966 | -1 | 0.034450561 |
| 9770   | 0.00237219  | -1 | 0.034568057 |
| 23479  | 0.002387348 | -1 | 0.034695596 |
| 79365  | 0.002387471 | -1 | 0.034695596 |
| 353116 | 0.002385673 | 1  | 0.034695596 |
| 6693   | 0.002391109 | -1 | 0.034716813 |
| 146206 | 0.002396788 | -1 | 0.034767597 |
| 6462   | 0.002399338 | 1  | 0.034772958 |
| 8398   | 0.002405989 | 1  | 0.034806055 |
| 80725  | 0.002405029 | 1  | 0.034806055 |
| 2182   | 0.002411665 | -1 | 0.034856539 |
| 10298  | 0.002413939 | 1  | 0.034857808 |
| 21     | 0.002419065 | 1  | 0.034868657 |
| 9811   | 0.002418041 | 1  | 0.034868657 |
| 64222  | 0.002425061 | -1 | 0.034923511 |
| 64127  | 0.002434745 | -1 | 0.035031315 |
| 23268  | 0.002449835 | 1  | 0.035184922 |
| 415117 | 0.002449274 | 1  | 0.035184922 |
| 25972  | 0.002457504 | -1 | 0.035263299 |
| 84922  | 0.002465857 | 1  | 0.035351347 |
| 4116   | 0.002476764 | -1 | 0.035380445 |
| 10677  | 0.002476078 | 1  | 0.035380445 |
| 23272  | 0.002470847 | -1 | 0.035380445 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 51314  | 0.00247281  | -1 | 0.035380445 |
| 58484  | 0.002479943 | -1 | 0.035394136 |
| 387263 | 0.002483504 | -1 | 0.035413253 |
| 156    | 0.002503856 | -1 | 0.035671557 |
| 388886 | 0.002509763 | 1  | 0.035723786 |
| 4478   | 0.002542795 | -1 | 0.036157204 |
| 9760   | 0.002544749 | -1 | 0.036157204 |
| 56910  | 0.002548784 | -1 | 0.036182293 |
| 1762   | 0.002560079 | 1  | 0.036310305 |
| 402778 | 0.002563567 | 1  | 0.036327457 |
| 1889   | 0.00256888  | 1  | 0.036370414 |
| 51291  | 0.002575818 | -1 | 0.036436279 |
| 57540  | 0.002583945 | 1  | 0.036486501 |
| 221895 | 0.002582345 | -1 | 0.036486501 |
| 329    | 0.002591165 | -1 | 0.036556061 |
| 1944   | 0.002607726 | 1  | 0.036757174 |
| 11157  | 0.002611559 | -1 | 0.036778685 |
| 7041   | 0.002618753 | 1  | 0.036847446 |
| 90203  | 0.002641666 | 1  | 0.037104348 |
| 126520 | 0.002639504 | 1  | 0.037104348 |
| 2161   | 0.002660749 | 1  | 0.037283895 |
| 51477  | 0.002661173 | 1  | 0.037283895 |
| 84678  | 0.002661465 | -1 | 0.037283895 |
| 3570   | 0.002667541 | -1 | 0.0373362   |
| 10009  | 0.002691868 | -1 | 0.037643642 |
| 51444  | 0.002695856 | -1 | 0.037651942 |
| 81542  | 0.002698119 | -1 | 0.037651942 |
| 89910  | 0.002699546 | 1  | 0.037651942 |
| 85363  | 0.002702033 | -1 | 0.037653679 |
| 54475  | 0.002708541 | 1  | 0.037711411 |
| 10421  | 0.002719023 | 1  | 0.03782432  |
| 353174 | 0.002743952 | 1  | 0.038137828 |
| 8764   | 0.002751256 | -1 | 0.03820349  |
| 84932  | 0.002753469 | -1 | 0.03820349  |
| 57418  | 0.002772412 | 1  | 0.038432862 |
| 2526   | 0.002778765 | -1 | 0.038487466 |
| 51294  | 0.002785128 | 1  | 0.038508681 |
| 266675 | 0.002783233 | 1  | 0.038508681 |
| 91663  | 0.002789539 | 1  | 0.038536249 |
| 23064  | 0.002812598 | -1 | 0.038821163 |
| 51574  | 0.002822661 | -1 | 0.038926347 |
| 8669   | 0.002882018 | -1 | 0.039710572 |
| 10096  | 0.0028939   | -1 | 0.039839854 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 6948   | 0.002924608 | -1 | 0.040227863 |
| 51138  | 0.002930482 | -1 | 0.040273917 |
| 91833  | 0.002935357 | 1  | 0.040306165 |
| 1140   | 0.002946569 | -1 | 0.0404253   |
| 348158 | 0.002958777 | 1  | 0.040557889 |
| 64319  | 0.002965182 | 1  | 0.040610769 |
| 1523   | 0.003002387 | 1  | 0.04099241  |
| 8818   | 0.00300122  | 1  | 0.04099241  |
| 23363  | 0.003005688 | 1  | 0.04099241  |
| 54981  | 0.003005904 | -1 | 0.04099241  |
| 55764  | 0.002999431 | 1  | 0.04099241  |
| 1783   | 0.003013074 | 1  | 0.04102001  |
| 4668   | 0.003011942 | -1 | 0.04102001  |
| 127579 | 0.003019516 | 1  | 0.041072634 |
| 4978   | 0.003023535 | 1  | 0.041092237 |
| 728537 | 0.003033364 | 1  | 0.041190701 |
| 55715  | 0.003039194 | 1  | 0.041234753 |
| 7048   | 0.003053854 | -1 | 0.041380607 |
| 158056 | 0.003055136 | 1  | 0.041380607 |
| 1046   | 0.003061329 | 1  | 0.041429298 |
| 57103  | 0.003068383 | -1 | 0.041489541 |
| 123263 | 0.003071121 | -1 | 0.04149136  |
| 2050   | 0.003084512 | 1  | 0.041636999 |
| 23174  | 0.003112244 | 1  | 0.041940322 |
| 54551  | 0.00311145  | 1  | 0.041940322 |
| 10217  | 0.003119272 | 1  | 0.041959283 |
| 10845  | 0.003121547 | -1 | 0.041959283 |
| 149111 | 0.003121238 | 1  | 0.041959283 |
| 54431  | 0.003146279 | -1 | 0.042256095 |
| 125476 | 0.003164339 | 1  | 0.042462866 |
| 727800 | 0.003169697 | 1  | 0.042498994 |
| 29855  | 0.003183954 | 1  | 0.042654278 |
| 1233   | 0.003190739 | -1 | 0.042709282 |
| 3117   | 0.003206274 | -1 | 0.042881229 |
| 8467   | 0.003210205 | -1 | 0.042897808 |
| 114899 | 0.003234935 | 1  | 0.043192073 |
| 57799  | 0.003277403 | 1  | 0.043722477 |
| 11314  | 0.003288133 | -1 | 0.043828943 |
| 10994  | 0.00329466  | 1  | 0.043879259 |
| 7405   | 0.003303572 | -1 | 0.043925445 |
| 153129 | 0.003303639 | -1 | 0.043925445 |
| 2799   | 0.003316367 | -1 | 0.044022541 |
| 50515  | 0.003316464 | -1 | 0.044022541 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 7326   | 0.003361485 | -1 | 0.044583023 |
| 89941  | 0.003371762 | 1  | 0.04468215  |
| 56938  | 0.003397906 | -1 | 0.044991208 |
| 224    | 0.003411567 | -1 | 0.045097176 |
| 80153  | 0.00341126  | 1  | 0.045097176 |
| 966    | 0.003417325 | -1 | 0.045098511 |
| 4091   | 0.00341482  | 1  | 0.045098511 |
| 65009  | 0.003422584 | 1  | 0.045130552 |
| 284186 | 0.003428302 | 1  | 0.045168587 |
| 57403  | 0.003431529 | 1  | 0.045173775 |
| 2817   | 0.003456942 | 1  | 0.045463435 |
| 9121   | 0.003459236 | 1  | 0.045463435 |
| 51251  | 0.00346552  | -1 | 0.045508504 |
| 1435   | 0.003484388 | -1 | 0.045718615 |
| 196    | 0.003488035 | -1 | 0.045728821 |
| 9236   | 0.003496477 | -1 | 0.045801841 |
| 126308 | 0.003505602 | -1 | 0.045883663 |
| 9361   | 0.003527648 | 1  | 0.046096533 |
| 79753  | 0.003526549 | -1 | 0.046096533 |
| 9879   | 0.003548592 | -1 | 0.046305527 |
| 132141 | 0.003549451 | 1  | 0.046305527 |
| 29881  | 0.003558146 | 1  | 0.046381    |
| 10272  | 0.00357019  | 1  | 0.046499978 |
| 10906  | 0.003588962 | -1 | 0.046668214 |
| 116442 | 0.003588621 | -1 | 0.046668214 |
| 51631  | 0.003601765 | 1  | 0.046796524 |
| 84909  | 0.00362421  | 1  | 0.047049795 |
| 29933  | 0.003633157 | -1 | 0.047127579 |
| 54429  | 0.003644619 | 1  | 0.047237822 |
| 10059  | 0.003651165 | -1 | 0.047245832 |
| 124402 | 0.003649518 | 1  | 0.047245832 |
| 221184 | 0.003662706 | 1  | 0.047356736 |
| 51088  | 0.003671708 | -1 | 0.047434659 |
| 5718   | 0.003678943 | -1 | 0.04748964  |
| 9437   | 0.003685913 | -1 | 0.047541121 |
| 476    | 0.003699222 | 1  | 0.04759726  |
| 90025  | 0.003698814 | 1  | 0.04759726  |
| 266747 | 0.003694963 | -1 | 0.04759726  |
| 157    | 0.003712568 | -1 | 0.047629621 |
| 526    | 0.003716676 | -1 | 0.047629621 |
| 2001   | 0.003710073 | -1 | 0.047629621 |
| 55738  | 0.003714459 | 1  | 0.047629621 |
| 57719  | 0.003715601 | 1  | 0.047629621 |

|        |             |    |             |
|--------|-------------|----|-------------|
| 109    | 0.00374152  | 1  | 0.047733375 |
| 1448   | 0.003733872 | -1 | 0.047733375 |
| 1606   | 0.003743563 | -1 | 0.047733375 |
| 9412   | 0.003745732 | -1 | 0.047733375 |
| 64773  | 0.003738347 | 1  | 0.047733375 |
| 115557 | 0.003738969 | 1  | 0.047733375 |
| 342892 | 0.003742079 | 1  | 0.047733375 |
| 9034   | 0.003759417 | -1 | 0.047869508 |
| 1841   | 0.003766697 | 1  | 0.047906169 |
| 3119   | 0.003768306 | -1 | 0.047906169 |
| 79153  | 0.003791438 | 1  | 0.048161835 |
| 1775   | 0.003796911 | 1  | 0.048192952 |
| 79745  | 0.003823019 | -1 | 0.048454719 |
| 84124  | 0.003823613 | -1 | 0.048454719 |
| 6773   | 0.003827418 | -1 | 0.048464416 |
| 57167  | 0.003830761 | 1  | 0.048468247 |
| 6059   | 0.003839914 | -1 | 0.048507063 |
| 23582  | 0.003838172 | -1 | 0.048507063 |
| 30011  | 0.00384793  | -1 | 0.048569834 |
| 6400   | 0.003855566 | -1 | 0.048627722 |
| 8897   | 0.003886473 | 1  | 0.048915055 |
| 26999  | 0.003886704 | -1 | 0.048915055 |
| 55017  | 0.003889274 | -1 | 0.048915055 |
| 58472  | 0.00389369  | -1 | 0.048915055 |
| 64859  | 0.003892239 | -1 | 0.048915055 |
| 6643   | 0.003898571 | -1 | 0.048937812 |
| 256126 | 0.003903222 | 1  | 0.048957637 |
| 776    | 0.003943798 | 1  | 0.049422457 |
| 10538  | 0.00394947  | -1 | 0.049422457 |
| 64121  | 0.00394958  | -1 | 0.049422457 |
| 10587  | 0.003953815 | 1  | 0.049436642 |
| 4324   | 0.003979807 | 1  | 0.049722633 |

DEG, differentially expressed genes; FDR, false discovery rate.