

Pearson Correlation of Features

|                     |   |   |                          |                      |                                  |   |        |                      |  |  |                           |   |  |   |                  |   |   |  |  |  |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
|---------------------|---|---|--------------------------|----------------------|----------------------------------|---|--------|----------------------|--|--|---------------------------|---|--|---|------------------|---|---|--|--|--|------------------|--|-----------------|---|--|--|------------------|--|-----------------------|--|--|---|---|-----------------------------|---------------------------------------|--|--|---------------------------------------|-------------------|---|---|----------------------|--------|------|
| GeneSize            | 1   | 0.0260.00930.044                                | 0.72                     | 0.26                 | 0.61                             | 0.0090.037  | 0.04   | 0.0460.0580.081      | 0.036  | 0.03   | 0.020.00760.01            | 0.018   | 0.59   | 0.93  | -0.14-0.043-0.32 | 0.93  | 0.97  | 0.0070.091   | -0.12  | 0.59   | 0.23             | 0.17   | -0.028-0.12     | -0.13   | -0.3   | -0.13  | 0.08             | -0.13-0.061                                | 0.14                  | 0.0280.074                                     | 0.11   | 0.0430.00010.011  | 0.14  | 0.15                        | 0.0310.062-0.024                      | 0.07   | -0.0270.0550.089   | 0.03                                  | 0.05              | 0.0120.0890.041                                   | 0.05  | 0.0170.0290.0130.059 | 0.12   | 0.08 |
| ExAC_mean_rd        | -0.026  | 1   | 0.72                     | 0.31                 | 0.33                             | 0.17  | 0.3    | 0.11                 | 0.82   | 0.13   | 0.16                      | 0.0820.0850.0340.0160.0180.0090.0070.013                            | 0.0770.0980.0040.035-0.0710.0560.068   | 0.0380.0070.0640.0910.056   | -0.02            | 0.0460.0090.075-0.0950.026  | 0.290.00870.0770.0580.0190.0290.0350.014-0.0120.00420.0730.0810.0140.0180.029-0.0140.0290.00870.027 | 0.0070.0040.0230.0270.0250.0230.00850.0230.0130.0320.0450.015  |  |  |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_gc_content     | -0.0090.72  | 1   | 0.32                     | 0.36                 | 0.13                             | 0.32  | 0.14   | 0.93                 | 0.079  | 0.13   | 0.0460.054                | -0.01-0.0130.0020.0030.0060.011                                     | 0.0610.0780.0310.014-0.0850.0710.087   | -0.07-0.034   | -0.1             | 0.0910.083-0.012  | 0.06  | -0.0280.0090.0610.034  | 0.21   | 0.0630.0950.077                                      | 0.05             | 0.0270.0240.00940.0130.0050.0770.0960.0260.0340.032-0.0720.0230.0070.039       | 0.0120.011      | 0.03  | 0.0390.0270.0160.00470.0160.011                                  | 0.03   | 0.0690.018       |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_complexity     | -0.044  | 0.31  | 0.32                     | 1                    | 0.17                             | -0.029-0.14   | 0.11   | 0.310.0040.0034-0.02 | -0.03-0.0390.0380.0130.0020.002                    | 0.034-0.0510.0630.0150.0010.0230.0980.0730.092 | 0.12                      | 0.061-0.0540.0820.0210.0180.016                                     | 0.070.00750.0580.0820.0420.029-0.0180.00190.018-0.02-0.0120.0060.00220.036-0.04                                | -0.03-0.0260.024  | 0.11             | -0.02-0.0090.011  | -0.0060.0070.0160.0120.00080.0080.0080.0100.0180.0060.0060.024                                      |  |  |  |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_cds_len        | -0.72   | 0.33  | 0.36                     | 0.17                 | 1                                | 0.38  | 0.85   | 0.04                 | 0.42   | 0.087  | 0.11                      | 0.088   | 0.12   | 0.0420.0420.0070.0000.0010.005  | 0.51             | 0.78  | -0.16-0.05  | -0.35  | 0.72   | 0.77   | 0.0550.048-0.16  | 0.57   | 0.24            | 0.16-0.012-0.13   | -0.14  | -0.35  | -0.15            | 0.14                                       | -0.13-0.059           | 0.16   | 0.03   | 0.079   | 0.11  | 0.0430.0030.00870.016       | 0.17                                  | 0.0290.049-0.0180.012-0.0190.0180.083                          | 0.0350.0540.0230.0830.0480.0460.0180.0290.0150.069       | 0.13                                  | 0.065             |   |   |                      |        |      |
| ExAC_gene_length    | -0.26   | 0.17  | 0.13                     | -0.0290.38           | 1                                | 0.4   | -0.011 | 0.21                 | 0.0490.0450.0620.0770.0280.0270.0050.0050.0040.034 | 0.15   | 0.32                      | -0.14-0.098-0.24  | 0.25   | 0.28  | -0.0790.036-0.12 | 0.32  | 0.15  | 0.15   | -0.022-0.13  | -0.11  | -0.24            | -0.14  | 0.08            | -0.14-0.074   | 0.08   | 0.037  | 0.13             | 0.22                                       | 0.0760.0020.013       | 0.22   | 0.09   | 0.0270.042-0.0280.075-0.018                                   | 0.02  | 0.064                       | 0.0070.0160.0190.0640.061             | 0.05   | 0.0440.0120.0250.0850.0730.017                           | 0.0380.053                            | 0.03              | 0.0770.0430.0440.0210.0320.0180.062               | 0.13  | 0.076                |        |      |
| ExAC_num_targ       | -0.61   | 0.3   | 0.32                     | -0.14                | 0.85                             | 0.4   | 1      | 0.013                | 0.39   | 0.098  | 0.13                      | 0.11  | 0.15   | 0.0610.0570.0130.0000.00220.065   | 0.53             | 0.77  | -0.15-0.032-0.35  | 0.58   | 0.65   | -0.12-0.031-0.21                                     | 0.57             | 0.3  | 0.14            | 0.01  | -0.13  | -0.16  | -0.34            | -0.17                                      | 0.14                  | -0.14-0.072                                    | 0.17   | 0.0330.076  | 0.01  | 0.0420.0020.00420.017       | 0.2                                   | 0.0430.0680.0020.0460.0050.0140.077                            | -0.0050.0680.0030.0000.0030.0070.0090.0060.0030.0050.012 | 0.01                                  |                   |   |   |                      |        |      |
| ExAC_segdup         | -0.0090.11  | 0.14  | 0.11                     | 0.04                 | -0.0110.013                      | 1   | 0.12   | 0.13                 | 0.14   | 0.04   | 0.0380.0360.0370.0280.011 | 0.01  | 0.62   | 0.012-0.0140.0310.0410.0260.0130.0030.0250.0340.017-0.0310.0270.0420.0150.0290.0370.0230.045          | 0.03             | 0.0450.0390.0080.0220.00460.020.0090.0170.00030.0090.0160.013                         | 4e-09   | 0.0050.00870.0070.0030.0000.011  | -0.0050.0680.0030.0000.0030.0070.0090.0060.0030.0050.012 | 0.01   |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_dip            | -0.037  | 0.82  | 0.93                     | 0.31                 | 0.42                             | 0.21  | 0.39   | 0.12                 | 1  | 0.098  | 0.14                      | 0.0620.0780.00080.0000.0000.006e-0500.013                           | 0.11   | 0.094   | 0.13             | -0.0460.012   | -0.12   | 0.0780.098   | -0.09-0.051-0.12   | 0.14   | 0.1              | 0.00090.063  | -0.04           | 0.033   | -0.12  | 0.021  | 0.26             | 0.0270.0850.0730.0250.0280.0390.023-0.019  | 7e-09                 | 0.091  | 0.1  | 0.019   | 0.03  | 0.024-0.0570.0220.00550.031 | 0.0070.00820.0230.0310.0240.0230.0091 | 0.02   | 0.014  | 0.03                                  | 0.0610.013        |   |   |                      |        |      |
| ExAC_del            | -0.04   | 0.13  | 0.070.0040.0870.0490.098 | 0.13                 | 0.098                            | 1   | 0.19   | 0.81                 | 0.15   | -0.28  | -0.12                     | -0.44   | -0.18  | -0.35   | 0.18             | 0.13  | 0.0560.081  | 0.12   | 0.06   | 0.0670.0470.0750.0890.064-0.0450.075-0.07            | -0.016           | 0.1  | 0.057           | 0.04  | 0.07   | 0.0430.0740.0630.0180.0080.0150.0120.0030.00290.0010.0720.0160.0060.0040.0080.0290.0060.0060.062 | -0.0048          | 0.00370.00080.00620.0070.034               | 0.050                 | 0.0030.0080.0170.0070.0060.0040.01             | 0.007  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_dup            | -0.046  | 0.16  | 0.130.00340.011          | 0.045                | 0.13                             | 0.14  | 0.19   | 1                    | 0.12   | 0.58   | -0.11                     | -0.26   | -0.22  | -0.58   | -0.54            | 0.22  | 0.09  | 0.0690.0390.0630.0120.0650.0550.0460.0580.0380.00610.0390.0440.00130.0470.0200.00280.0390.0390.0340.0380.00390.010.00280.0000.0000.0010.0030.0080.0000.0040.0030.0080.0000.0078          | 0.0010.0050.011  | 0.007  | 0.01             | 0.007  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_del.sing       | -0.0580.0820.046  | -0.02   | 0.0880.067               | 0.11                 | 0.04                             | 0.062   | 0.81   | 0.12                 | 1  | 0.17   | -0.36                     | -0.15   | -0.29  | -0.11   | -0.24            | 0.073   | 0.13  | 0.0760.0520.0850.0290.0760.0630.0480.0610.037-0.0110.0410.0440.0120.0720.0390.0180.0480.0390.0530.0460.0050.0050.0270.0290.00240.0010.0120.0210.0000.0050.0130.0060.0350.0050.00020.0073 | -0.0028  | 0.0040.0060.00070.0140.0510.060.00150.0030.0250.0066 | 2e-05            |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_dup.sing       | -0.0810.0850.054  | -0.03   | 0.12                     | 0.077                | 0.15                             | 0.0380.075  | 0.15   | 0.58                 | 0.17   | 1  | -0.19                     | -0.43   | -0.14  | -0.31   | -0.29            | 0.086   | 0.1   | 0.110.00440.031-0.0310.0890.0880.0120.0270.00370.059   | 0.010  | 0.00550.0120.0190.011-0.0320.0120.0430.0110.011      | 0.030            | 0.0410.0190.0240.0130.0020.0010.0390.0260.00950.0240.0010.0070.00180.00010.016 | -0.0020.0120.02 | 0.0160.0030.0080.00370.00260.00180.00330.0230.0047  |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_del.sing.score | -0.0360.034   | -0.01-0.0390.0420.0280.0610.0340.00020.028      | -0.11                    | -0.36                | -0.19                            | 1   | 0.39   | 0.65                 | 0.22   | 0.43   | -0.06                     | -0.16   | 0.048  | -0.17   | -0.21            | -0.18   | -0.0250.036   | -0.17  | -0.17  | -0.17  | 0.21             | 0.21   | 0.18            | -0.019-0.19   | -0.12  | -0.15  | -0.160.00740.017 | -0.15                                      | 0.0690.0060.0080.0022 | 7e-09  | 0.007-0.0130.00090.0770.0180.0030.013-0.0790.0120.0120.026 | 0.0170.0160.0030.0260.0030.0030.0040.0060.0040.0120.0320.0051 |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_dup.sing.score | -0.03   | 0.016-0.0130.0380.0420.0270.0570.0370.00040.028 | -0.26                    | -0.15                | -0.43                            | 0.39  | 1      | 0.24                 | 0.52   | 0.47   | -0.0680.0290.042          | -0.05-0.0590.0630.0030.025-0.0730.0740.0750.0730.0860.0330.039-0.06 | -0.0540.0540.0790.0210.0780.050.0070.00030.0090.0140.010.0070.00190.0220.0110.0050.0050.00150.00080.00050.0053 | 0.0140.00460.0260.0050.00160.00160.00620.0040.00160.00180.0060.0026                                   |                  |   |   |  |  |  |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_del.score      | -0.02   | 0.0180.0020.010.0070.00570.0110.0280.0006-0.44  | -0.22                    | -0.29                | -0.14                            | 0.65  | 0.24   | 1                    | 0.37   | 0.69   | -0.16                     | -0.17   | 0.024  | -0.18   | -0.22            | -0.19   | -0.0420.017   | -0.18  | -0.19  | -0.18  | 0.2              | 0.22   | 0.19            | -0.014  | -0.2   | -0.11  | -0.14            | -0.15                                      | 0.02                  | -0.15  | -0.13  | 0.0740.0170.0120.0180.00740.0130.0130.02                      | 0.0920.0230.0160.023-0.058  | 0.02                        | 0.0130.032                            | 0.0180.0140.0150.0320.0050.0080.00480.0030.0150.0070.0480.0029 |  |                                       |                   |   |   |                      |        |      |
| ExAC_dup.score      | -0.0076.0090.00190.00270.00030.00060.00010.012          | 6e-05   | -0.18                    | -0.58                | -0.11                            | -0.31   | 0.22   | 0.52                 | 0.37   | 1  | 0.9                       | -0.21   | -0.0720.012  | -0.1  | -0.12            | -0.1  | -0.0340.0037-0.13   | -0.13  | -0.12  | 0.099  | 0.15             | 0.0930.004   | -0.1            | -0.0510.0680.0830.018-0.0770.0640.0380.0270.0150.0150.00270.0120.00610.0340.0430.0070.0050.00340.00480.0050.0060.0033 | 0.0150.0010.00070.00030.0050.0080.00140.010.00870.0120.014-0.011 |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_cnv.score      | -0.010.00780.00080.00240.00190.0040.00220.010.000130.35 | -0.54   | -0.24                    | -0.29                | 0.43                             | 0.47  | 0.69   | 0.9                  | 1  | -0.23  | -0.13                     | 0.014   | -0.16  | -0.19   | -0.16            | -0.040.0064-0.17  | -0.18   | -0.17  | 0.16   | 0.2  | 0.16-0.00270.017 | -0.087   | -0.11           | -0.13   | 0.02   | -0.13  | -0.11            | 0.0620.029                                 | 0.01                  | 0.020.00570.0130.00390.0340.0720.0140.0120.013 | -0.03  | 0.0130.0020.016   | 0.0190.00770.00730.0160.0060.0080.0060.00260.0060.00760.0340.0073 |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| ExAC_flag           | -0.018  | 0.13  | 0.11                     | 0.0340.0650.0340.065 | 0.62                             | 0.11  | 0.18   | 0.22                 | 0.0730.086   | -0.06-0.068-0.16                               | -0.21                     | -0.23   | 1  | 0.0590.0270.0430.0640.0290.0360.0290.0390.0510.027-0.0190.0310.0530.0170.0420.0430.0160.0550.0380.049 | 0.05             | -0.0170.0220.0040.0130.00180.0030.0030.00210.0140.0090.0070.00970.0250.0090.0030.0015 | -0.0070.0010.0130.00180.00230.0030.0060.0060.0050.0030.0020.0050.028                                |  |  |  |                  |  |                 |   |  |  |                  |  |                       |  |  |   |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| GnomAD_obs_lof      | -0.59   | 0.0770.061-0.051                                | 0.51                     | 0.15                 | 0.53                             | 0.0120.094  | 0.13   | 0.09                 | 0.13   | 0.1  | -0.16                     | -0.029-0.17   | -0.072-0.13  | 0.059   | 1                | 0.66  | 0.33  | 0.54   | 0.15   | 0.69   | 0.61             | 0.26   | 0.35            | 0.18  | -0.032   | -0.2   | -0.36            | 0.064                                      | 0.39                  | 0.11   | 0.06   | 0.18  | 0.091   | 0.2                         | 0.23                                  | -0.0280.0360.0430.0220.0150.00180.00640.073-0.0210.0150.044    | 0.024  | 0.011                                 | -0.0220.0070.0092 | -0.0130.013-0.0120.00920.0220.0220.00650.0360.018 | 0.02  | 0.02                 | 0.054  |      |
| GnomAD_exp_lof      | -0.93   | 0.0980.078-0.063                                | 0.78                     | 0.32                 | 0.77                             | -0.014  | 0.13   | 0.0560.0690.076      | 0.11   | 0.0480.0420.0240.0120.0140.027                 | 0.66                      | 1   | -0.16-0.035-0.37   | 0.89  | 0.95             | -0.0630.039-0.17  | 0.66  | 0.3  | 0.18   | -0.01  | -0.13            | -0.15  | -0.36           | -0.16   | 0.13   | -0.15  | -0.085           | 0.17                                       | 0.0350.081            | 0.12   | 0.040.00030.00970.017                                      | 0.19  | 0.0450.076-0.0170.011   | -0.02                       | 0.0490.095                            | 0.0370.0560.0210.0950.044                                      | 0.05   | 0.02                                  | 0.03              | 0.0140.064  | 0.14  | 0.091                |        |      |
| GnomAD_oe_lof       | -0.140.0040.0310.015                                    | -0.16   | -0.14                    | -0.15                | 0.031-0.0460.0810.0390.0520.0044 | -0.17   | -0.05  | -0.18                | -0.1   | -0.16  | 0.043                     | 0.33  | -0.16  | 1   | 0.9              | 0.83  | 0.036-0.15  | 0.57   | 0.54   | 0.58   | -0.7             | -0.55  | -0.61           | 0.018   | 0.8  | 0.25   | 0.57             | 0.35                                       | -0.014                | 0.35   | 0.4  | -0.2  | -0.0330.0380.0820.0320.0640.01-0.085                              | -0.23                       | -0.0480.0560.021                      | 0.13   | -0.0120.0360.084   | -0.0330.024-0.04-0.0840.0250.0360.016 | 5e-05             | 0.00150.034                                       | -0.13   | -0.033               |        |      |
| GnomAD_oe_lof_lower | -0.0430.0350.0140.0016-0.050.0980.0320.0410.012         | 0.12  | 0.0630.0850.031          | -0.21                | -0.059-0.22                      | -0.12   | -0.19  | 0.064                | 0.54   | 0.035  | 0.9                       | 1   | 0.78   | 0.082-0.0460.56   | 0.57             | 0.54  | -0.67   | -0.55  | -0.65  | 0.0520.88  | 0.28             | 0.57   | 0.39            | 0.036   | 0.4  | 0.46   | -0.2             | -0.0140.0210.074-0.0330.0050.0060.055-0.21 | -0.0330.0380.026      | 0.16   | -0.0170.0360.082   | -0.0340.0220.0410.0820.0170.0240.0140.0140.00910.025-0.11     | -0.017  |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |
| GnomAD_oe_lof_upper | -0.32   | -0.0710.0850.023                                | -0.35                    | -0.24                | -0.35                            | 0.026   | -0.12  | 0.06                 | 0.0120.029-0.031                                   | -0.18  | -0.061                    | -0.19   | -0.1   | -0.16   | 0.029            | 0.15  | -0.37   | 0.83   | 0.78   | 1  | -0.21            | -0.34  | 0.55            | 0.48  | 0.63   | -0.8   | -0.6             | -0.640.082                                 | 0.75                  | 0.29   | 0.68   | 0.39  | -0.0790.037   | 0.41                        | -0.25                                 | -0.0360.068  | -0.12  | -0.0510.0080.016-0.14                 | -0.28             | 0.0510.0780.00490.120.00380.0420.097              | -0.0420.0350.0420.0970.0330.0040.0220.0090.0040.051 | -0.16                | -0.054 |      |
| GnomAD_obs_mis      | -0.93   | 0.0560.0710.098                                 | 0.72                     | 0.25                 | 0.58                             | 0.0110.0780.0670.0650.0760.089-0.0290.0030.0420.0340.0450.036 | 0.69   | 0.89                 | -0.0360.082  | -0.21  | 1                         | 0.96  | 0.16   | 0.27  | 0.053            | 0.46-0.00580.037  | 0.01  | -0.0140.059-0.23   | -0.011   | 0.1  | 0.0040.053       | 0.1  | 0.032           | 0.07  | 0.0910.0320.00070.011  | 0.13   | 0.1              | 0.0270.055-0.0270.076-0.0290.0520.075      | 0.0210.0410.0040.075  | 0.04   | 0.0460.0180.0260.0110.0560.0960.076                        | 0.0350.0530.0170.0970.0450.0490.0190.0280.0130.06             |   |                             |                                       |  |  |                                       |                   |   |   |                      |        |      |