

```
In [1]: using DataFrames
```

QTL + Markers

```
In [2]: ; paste G/*/Correlation.G5.G.PBLUP.txt > All.Correlation.G5.G.PBLUP.txt
```

```
In [3]: ; paste G/*/Correlation.G5.G.JC.txt > All.Correlation.G5.G.JC.txt
```

```
In [4]: ; paste G/*/Correlation.G5.G.J.txt > All.Correlation.G5.G.J.txt
```

```
In [5]: ; paste G/*/Correlation.G5.G.C.txt > All.Correlation.G5.G.C.txt
```

```
In [6]: ; paste G/*/Correlation.G5.G.N.txt > All.Correlation.G5.G.N.txt
```

```
In [7]: ; paste G/*/Regression.G5.G.PBLUP.txt > All.Reggression.G5.G.PBLUP.txt
```

```
In [8]: ; paste G/*/Regression.G5.G.JC.txt > All.Reggression.G5.G.JC.txt
```

```
In [9]: ; paste G/*/Regression.G5.G.J.txt > All.Reggression.G5.G.J.txt
```

```
In [10]: ; paste G/*/Regression.G5.G.C.txt > All.Reggression.G5.G.C.txt
```

```
In [11]: ; paste G/*/Regression.G5.G.N.txt > All.Reggression.G5.G.N.txt
```

```
In [12]: GCorPBLUP = convert(Array,readtable("All.Correlation.G5.G.PBLUP.txt",separator=' ',header=false))
```

```
Out[12]: 1x10 Array{Float64,2}:  
 0.436045  0.420598  0.422983  0.39842  ...  0.425488  0.426996  0.407438
```

```
In [13]: GCorJC = convert(Array,readtable("All.Correlation.G5.G.JC.txt",separator=' ',header=false))
```

```
Out[13]: 1x10 Array{Float64,2}:  
 0.977  0.975554  0.97644  0.974116  ...  0.974921  0.972235  0.974189
```

```
In [14]: GCorJ = convert(Array,readtable("All.Correlation.G5.G.J.txt",separator=' ',header=false))
```

```
Out[14]: 1x10 Array{Float64,2}:  
 0.978207  0.975157  0.977486  0.974957  ...  0.976054  0.971926  0.974727
```

```
In [15]: GCorC = convert(Array,readtable("All.Correlation.G5.G.C.txt",separator=' ',header=false))
```

```
Out[15]: 1x10 Array{Float64,2}:  
 0.964243  0.962363  0.964345  0.960385  ...  0.961936  0.958038  0.956467
```

```
In [16]: GCorN = convert(Array,readtable("All.Correlation.G5.G.N.txt",separator=' ',header=false))
```

```
Out[16]: 1x10 Array{Float64,2}:  
 0.964  0.962106  0.964488  0.960218  ...  0.961822  0.957827  0.956284
```

```
In [17]: GRegPBLUP = convert(Array,readtable("All.Regression.G5.G.PBLUP.txt",separator=' ',header=false))
```

```
Out[17]: 1x10 Array{Float64,2}:  
 1.00209  1.02353  0.92916  0.904945  ...  0.910925  1.0099  0.908693  0.9449
```

```
In [18]: GRegJC = convert(Array,readtable("All.Regression.G5.G.JC.txt",separator=' ',header=false))
```

```
Out[18]: 1x10 Array{Float64,2}:  
 1.081  1.08545  1.04369  1.07091  ...  1.03986  1.07363  1.03962  1.06542
```

```
In [19]: GRegJ = convert(Array,readtable("All.Regression.G5.G.J.txt",separator=' ',header=false))
```

```
Out[19]: 1x10 Array{Float64,2}:  
 1.07978  1.08645  1.04336  1.07083  ...  1.03842  1.07241  1.039  1.06557
```

```
In [20]: GRegC = convert(Array,readtable("All.Regression.G5.G.C.txt",separator=' ',header=false))
```

```
Out[20]: 1x10 Array{Float64,2}:  
 1.07616  1.08828  1.03712  1.06471  ...  1.0384  1.07133  1.03608  1.06431
```

```
In [21]: GRegN = convert(Array,readtable("All.Regression.G5.G.N.txt",separator=' ',header=false))
```

```
Out[21]: 1x10 Array{Float64,2}:  
 1.076  1.08757  1.03772  1.06519  ...  1.03881  1.07105  1.03604  1.06477
```

```
In [22]: mean(GCorPBLUP)
```

```
Out[22]: 0.4156153515457838
```

```
In [23]: mean(GCorJC)
```

```
Out[23]: 0.9758575492273497
```

```
In [24]: mean(GCorJ)
```

```
Out[24]: 0.9763410974458537
```

```
In [25]: mean(GCorC)
```

```
Out[25]: 0.963157184891989
```

```
In [26]: mean(GCorN)
```

```
Out[26]: 0.9630781376912794
```

```
In [27]: mean(GRegPBLUP)
```

```
Out[27]: 0.9530497287777722
```

```
In [28]: mean(GRegJC)
```

```
Out[28]: 1.0598876688887662
```

```
In [29]: mean(GRegJ)
```

```
Out[29]: 1.0593614670062146
```

```
In [30]: mean(GRegC)
```

```
Out[30]: 1.0572741407326511
```

```
In [31]: mean(GRegN)
```

```
Out[31]: 1.0573166257895923
```

```
In [32]: std(GCorPBLUP)
```

```
Out[32]: 0.012442008075133328
```

```
In [33]: std(GCorJC)
```

```
Out[33]: 0.0026943058545991663
```

```
In [34]: std(GCorJ)
```

```
Out[34]: 0.0027336833026724307
```

```
In [35]: std(GCorC)
```

```
Out[35]: 0.004272209858046687
```

```
In [36]: std(GCorN)
```

```
Out[36]: 0.004371550762679975
```

```
In [37]: std(GRegPBLUP)
```

```
Out[37]: 0.044140968488713545
```

```
In [38]: std(GRegJC)
```

```
Out[38]: 0.018424737762098336
```

```
In [39]: std(GRegJ)
```

```
Out[39]: 0.018664102387667934
```

```
In [40]: std(GRegC)
```

```
Out[40]: 0.01959601679668652
```

```
In [41]: std(GRegN)
```

```
Out[41]: 0.019358062493031167
```

QTL

```
In [42]: ; paste Q/*/Correlation.G5.Q.JC.txt > All.Correlation.G5.Q.JC.txt
```

```
In [43]: ; paste Q/*/Correlation.G5.Q.J.txt > All.Correlation.G5.Q.J.txt
```

```
In [44]: ; paste Q/*/Correlation.G5.Q.C.txt > All.Correlation.G5.Q.C.txt
```

```
In [45]: ; paste Q/*/Correlation.G5.Q.N.txt > All.Correlation.G5.Q.N.txt
```

```
In [46]: ; paste Q/*/Regression.G5.Q.JC.txt > All.Regression.G5.Q.JC.txt
```

```
In [47]: ; paste Q/*/Regression.G5.Q.J.txt > All.Regression.G5.Q.J.txt
```

```
In [48]: ; paste Q/*/Regression.G5.Q.C.txt > All.Regression.G5.Q.C.txt
```

```
In [49]: ; paste Q/*/Regression.G5.Q.N.txt > All.Regression.G5.Q.N.txt
```

```
In [50]: QCorJC = convert(Array,readtable("All.Correlation.G5.Q.JC.txt",separator=' ',header=false))
```

```
Out[50]: 1x10 Array{Float64,2}:  
          0.993693  0.994605  0.994749  0.99323 ...  0.993908  0.99375  0.994473
```

```
In [51]: QCorJ = convert(Array,readtable("All.Correlation.G5.Q.J.txt",separator=' ',header=false))
```

```
Out[51]: 1x10 Array{Float64,2}:  
          0.994144  0.994789  0.995077  0.993431 ...  0.994025  0.993767  0.994542
```

```
In [52]: QCorC = convert(Array,readtable("All.Correlation.G5.Q.C.txt",separator=' ',header=false))
```

```
Out[52]: 1x10 Array{Float64,2}:  
          0.938  0.813838  0.933  0.907  0.944 ...  0.932652  0.863865  0.921011
```

```
In [53]: QCorN = convert(Array,readtable("All.Correlation.G5.Q.N.txt",separator=' ',header=false))
```

```
Out[53]: 1x10 Array{Float64,2}:  
          0.93794  0.813868  0.932079  0.906733 ...  0.932495  0.864026  0.92039
```

```
In [54]: QRegJC = convert(Array,readtable("All.Regression.G5.Q.JC.txt",separator=' ',header=false))
```

```
Out[54]: 1x10 Array{Float64,2}:  
 1.07375  1.0728  1.03825  1.06909  ...  1.03654  1.06962  1.04684  1.05763
```

```
In [55]: QRegJ = convert(Array,readtable("All.Regression.G5.Q.J.txt",separator=' ',header=false))
```

```
Out[55]: 1x10 Array{Float64,2}:  
 1.06811  1.07122  1.03421  1.06884  ...  1.03876  1.06755  1.04505  1.05806
```

```
In [56]: QRegC = convert(Array,readtable("All.Regression.G5.Q.C.txt",separator=' ',header=false))
```

```
Out[56]: 1x10 Array{Float64,2}:  
 1.147  1.11511  1.109  1.094  1.151  ...  1.1521  1.17117  1.03431  1.14901
```

```
In [57]: QRegN = convert(Array,readtable("All.Regression.G5.Q.N.txt",separator=' ',header=false))
```

```
Out[57]: 1x10 Array{Float64,2}:  
 1.14857  1.11579  1.1091  1.09383  ...  1.15292  1.17162  1.03515  1.14823
```

```
In [58]: mean(QCorJC)
```

```
Out[58]: 0.9943717414735079
```

```
In [59]: mean(QCorJ)
```

```
Out[59]: 0.9945073615806306
```

```
In [60]: mean(QCorC)
```

```
Out[60]: 0.9020176011239418
```

```
In [61]: mean(QCorN)
```

```
Out[61]: 0.9017623000140695
```

```
In [62]: mean(QRegJC)
```

```
Out[62]: 1.0542847989229471
```

```
In [63]: mean(QRegJ)
```

```
Out[63]: 1.0529275746708755
```

```
In [64]: mean(QRegC)
```

```
Out[64]: 1.1236535871403306
```

```
In [65]: mean(QRegN)
```

```
Out[65]: 1.124049449640557
```

```
In [66]: std(QCorJC)
```

```
Out[66]: 0.0007881651387226933
```

```
In [67]: std(QCorJ)
```

```
Out[67]: 0.000729418278172725
```

```
In [68]: std(QCorC)
```

```
Out[68]: 0.05248100759740657
```

```
In [69]: std(QCorN)
```

```
Out[69]: 0.052336327042870806
```

```
In [70]: std(QRegJC)
```

```
Out[70]: 0.01615957753978459
```

```
In [71]: std(QRegJ)
```

```
Out[71]: 0.01558390112492821
```

```
In [72]: std(QRegC)
```

```
Out[72]: 0.03978939088869175
```

```
In [73]: std(QRegN)
```

```
Out[73]: 0.039719234715985055
```

Markers

```
In [74]: ; paste M/*/Correlation.G5.M.JC.txt > All.Correlation.G5.M.JC.txt
```

```
In [75]: ; paste M/*/Correlation.G5.M.J.txt > All.Correlation.G5.M.J.txt
```

```
In [76]: ; paste M/*/Correlation.G5.M.C.txt > All.Correlation.G5.M.C.txt
```

```
In [77]: ; paste M/*/Correlation.G5.M.N.txt > All.Correlation.G5.M.N.txt
```

```
In [78]: ; paste M/*/Regression.G5.M.JC.txt > All.Reggression.G5.M.JC.txt
```

```
In [79]: ; paste M/*/Regression.G5.M.J.txt > All.Reggression.G5.M.J.txt
```

```
In [80]: ; paste M/*/Regression.G5.M.C.txt > All.Reggression.G5.M.C.txt
```

```
In [81]: ; paste M/*/Regression.G5.M.N.txt > All.Reggression.G5.M.N.txt
```

```
In [82]: MCorJC = convert(Array,readtable("All.Correlation.G5.M.JC.txt",separator=' ',header=false))
```

```
Out[82]: 1x10 Array{Float64,2}:  
0.774048 0.831149 0.777563 0.827939 ... 0.769867 0.823784 0.758738
```

```
In [83]: MCorJ = convert(Array,readtable("All.Correlation.G5.M.J.txt",separator=' ',header=false))
```

```
Out[83]: 1x10 Array{Float64,2}:  
0.774 0.831255 0.777 0.828 0.843 0.832 ... 0.770256 0.823652 0.758773
```

```
In [84]: MCorC = convert(Array,readtable("All.Correlation.G5.M.C.txt",separator=' ',header=false))
```

```
Out[84]: 1x10 Array{Float64,2}:  
0.774017 0.830823 0.778219 0.82799 ... 0.768484 0.821187 0.75924
```



```
In [85]: MCorN = convert(Array,readtable("All.Correlation.G5.M.N.txt",separator=' ',header=false))
```

```
Out[85]: 1x10 Array{Float64,2}:  
 0.774005  0.83101  0.778147  0.828043  ...  0.768454  0.821176  0.75917
```

```
In [86]: MRegJC = convert(Array,readtable("All.Regression.G5.M.JC.txt",separator=' ',header=false))
```

```
Out[86]: 1x10 Array{Float64,2}:  
 0.953139  0.985363  0.921044  0.994034  ...  0.91531  0.928099  0.943946
```

```
In [87]: MRegJ = convert(Array,readtable("All.Regression.G5.M.J.txt",separator=' ',header=false))
```

```
Out[87]: 1x10 Array{Float64,2}:  
 0.953  0.986613  0.921  0.994  0.952  0.99  ...  0.915909  0.927972  0.943816
```

```
In [88]: MRegC = convert(Array,readtable("All.Regression.G5.M.C.txt",separator=' ',header=false))
```

```
Out[88]: 1x10 Array{Float64,2}:  
 0.953053  0.98629  0.923  0.994131  ...  0.912659  0.923146  0.941744
```

```
In [89]: MRegN = convert(Array,readtable("All.Regression.G5.M.N.txt",separator=' ',header=false))
```

```
Out[89]: 1x10 Array{Float64,2}:  
 0.953043  0.986657  0.923496  0.995147  ...  0.912602  0.923817  0.941445
```

```
In [90]: mean(MCorJC)
```

```
Out[90]: 0.8047432804499135
```

```
In [91]: mean(MCorJ)
```

```
Out[91]: 0.8046994752298581
```

```
In [92]: mean(MCorC)
```

```
Out[92]: 0.8044242038131287
```

```
In [93]: mean(MCorN)
```

```
Out[93]: 0.804420026446978
```

```
In [94]: mean(MRegJC)
```

```
Out[94]: 0.9519871678758282
```

```
In [95]: mean(MRegJ)
```

```
Out[95]: 0.9521795604858496
```

```
In [96]: mean(MRegC)
```

```
Out[96]: 0.9515355730403183
```

```
In [97]: mean(MRegN)
```

```
Out[97]: 0.9518137747711615
```

```
In [98]: std(MCorJC)
```

```
Out[98]: 0.03136712801709208
```

```
In [99]: std(MCorJ)
```

```
Out[99]: 0.03134730366132051
```

```
In [100]: std(MCorC)
```

```
Out[100]: 0.03120198737263556
```

```
In [101]: std(MCorN)
```

```
Out[101]: 0.031241176156687492
```

```
In [102]: std(MRegJC)
```

```
Out[102]: 0.028806239471599562
```

```
In [103]: std(MRegJ)
```

```
Out[103]: 0.028916178321272717
```

```
In [104]: std(MRegC)
```

```
Out[104]: 0.02959311278086577
```

```
In [105]: std(MRegN)
```

```
Out[105]: 0.0296708200265105
```