

```
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}:  
          0.420299  0.424409  0.422884  0.436484  ...  0.423666  0.426669  0.458269
```

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

```
Out[13]: 1x10 Array{Float64,2}:  
          0.973111  0.979493  0.978526  0.980801  ...  0.974794  0.981051  0.985913
```

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

```
Out[14]: 1x10 Array{Float64,2}:  
 0.972831  0.979476  0.978672  0.980798  ...  0.974699  0.981613  0.985781
```

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

```
Out[15]: 1x10 Array{Float64,2}:  
 0.973251  0.976904  0.977473  0.980726  ...  0.97472  0.980589  0.985821
```

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

```
Out[16]: 1x10 Array{Float64,2}:  
 0.973133  0.976807  0.977399  0.980797  ...  0.974661  0.980558  0.985744
```

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

```
Out[17]: 1x10 Array{Float64,2}:  
 0.867037  0.969827  1.00994  1.09065  ...  0.986909  0.956906  1.07851
```

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

```
Out[18]: 1x10 Array{Float64,2}:  
 1.00958  1.02866  1.11595  1.11407  ...  1.0685  1.06438  1.04607  1.03174
```

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

```
Out[19]: 1x10 Array{Float64,2}:  
 1.00962  1.02949  1.116  1.11419  ...  1.0687  1.06508  1.04601  1.03196
```

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

```
Out[20]: 1x10 Array{Float64,2}:  
 1.00973  1.03135  1.11616  1.11357  ...  1.06683  1.06578  1.04598  1.03226
```

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

```
Out[21]: 1x10 Array{Float64,2}:  
 1.0104  1.03129  1.11635  1.11382  ...  1.06647  1.0658  1.04559  1.03192
```

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

```
Out[22]: 0.4265591870375972
```

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

```
Out[23]: 0.9790796572545248
```

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

```
Out[24]: 0.9791268395269199
```

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

```
Out[25]: 0.977500400768248
```

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

```
Out[26]: 0.9774811696705438
```

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

```
Out[27]: 0.9742405705948721
```

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

```
Out[28]: 1.0535340024476065
```

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

```
Out[29]: 1.053633333490312
```

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

```
Out[30]: 1.053933364908711
```

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

```
Out[31]: 1.0539237864956221
```

In [32]: std(GCorPBLUP)

Out[32]: 0.013235274494864656

In [33]: std(GCorJC)

Out[33]: 0.004002376464069747

In [34]: std(GCorJ)

Out[34]: 0.004090796145160985

In [35]: std(GCorC)

Out[35]: 0.004479839866708433

In [36]: std(GCorN)

Out[36]: 0.004507840570292334

In [37]: std(GRegPBLUP)

Out[37]: 0.07164202188551011

In [38]: std(GRegJC)

Out[38]: 0.03694171264446568

In [39]: std(GRegJ)

Out[39]: 0.037011828781561756

In [40]: std(GRegC)

Out[40]: 0.03652413771664545

In [41]: std(GRegN)

Out[41]: 0.03655130199522856

Markers

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

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

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

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

```
In [46]: ; paste M/*/Correlation.G5.M.JCL.txt > All.Correlation.G5.M.JCL.txt
```

```
In [47]: ; paste M/*/Correlation.G5.M.CL.txt > All.Correlation.G5.M.CL.txt
```

```
In [48]: ; paste M/*/Regression.G5.M.JC.txt > All.Reggression.G5.M.JC.txt
```

```
In [49]: ; paste M/*/Regression.G5.M.J.txt > All.Reggression.G5.M.J.txt
```

```
In [50]: ; paste M/*/Regression.G5.M.C.txt > All.Reggression.G5.M.C.txt
```

```
In [51]: ; paste M/*/Regression.G5.M.N.txt > All.Reggression.G5.M.N.txt
```

```
In [52]: ; paste M/*/Regression.G5.M.JCL.txt > All.Reggression.G5.M.JCL.txt
```

```
In [53]: ; paste M/*/Regression.G5.M.CL.txt > All.Reggression.G5.M.CL.txt
```

```
In [54]: MCorJC = convert(Array,readtable("All.Correlation.G5.M.JC.txt",separator=' ',header=false))
```

```
Out[54]: 1x10 Array{Float64,2}:  
          0.810026  0.874007  0.878299  0.816954  ...  0.785956  0.866447  0.725626
```

```
In [55]: MCorJ = convert(Array,readtable("All.Correlation.G5.M.J.txt",separator=' ',header=false))
```

```
Out[55]: 1x10 Array{Float64,2}:  
          0.81  0.874007  0.878162  0.81682  0.864589  ...  0.785787  0.866202  0.725603
```

```
In [56]: MCorC = convert(Array,readtable("All.Correlation.G5.M.C.txt",separator=' ',header=false))
```

```
Out[56]: 1x10 Array{Float64,2}:  
 0.806887  0.874173  0.878582  0.817052  ...  0.786504  0.866608  0.725685
```

```
In [57]: MCorN = convert(Array,readtable("All.Correlation.G5.M.N.txt",separator=' ',header=false))
```

```
Out[57]: 1x10 Array{Float64,2}:  
 0.806697  0.874275  0.878512  ...  0.714575  0.7864  0.86653  0.725559
```

```
In [58]: MCorJCL = convert(Array,readtable("All.Correlation.G5.M.JCL.txt",separator=' ',header=false))
```

```
Out[58]: 1x10 Array{Float64,2}:  
 0.810034  0.874025  0.878235  0.816759  ...  0.786264  0.866227  0.725798
```

```
In [59]: MCorCL = convert(Array,readtable("All.Correlation.G5.M.CL.txt",separator=' ',header=false))
```

```
Out[59]: 1x10 Array{Float64,2}:  
 0.700358  0.711999  0.667749  0.641533  ...  0.601753  0.673826  0.572773
```

```
In [60]: MRegJC = convert(Array,readtable("All.Regression.G5.M.JC.txt",separator=' ',header=false))
```

```
Out[60]: 1x10 Array{Float64,2}:  
 0.886563  0.947922  1.07049  0.990782  ...  0.951456  0.974545  0.851964
```

```
In [61]: MRegJ = convert(Array,readtable("All.Regression.G5.M.J.txt",separator=' ',header=false))
```

```
Out[61]: 1x10 Array{Float64,2}:  
 0.887  0.947716  1.07042  0.989766  ...  0.951845  0.974375  0.852218
```

```
In [62]: MRegC = convert(Array,readtable("All.Regression.G5.M.C.txt",separator=' ',header=false))
```

```
Out[62]: 1x10 Array{Float64,2}:  
 0.885015  0.947146  1.07008  0.990291  ...  0.950633  0.973699  0.851599
```

```
In [63]: MRegN = convert(Array,readtable("All.Regression.G5.M.N.txt",separator=' ',header=false))
```

```
Out[63]: 1x10 Array{Float64,2}:  
 0.884731  0.947081  1.0702  0.989663  ...  0.950941  0.97359  0.851495
```

```
In [64]: MRegJCL = convert(Array,readtable("All.Regression.G5.M.JCL.txt",separator=' ',header=false))
```

```
Out[64]: 1x10 Array{Float64,2}:  
 0.886717  0.94775  1.07025  0.990496  ...  0.951216  0.974316  0.852049
```

```
In [65]: MRegCL = convert(Array,readtable("All.Regression.G5.M.CL.txt",separator=' ',header=false))
```

```
Out[65]: 1x10 Array{Float64,2}:  
 1.16159  1.2327  1.22782  1.18261  ...  0.945695  1.09081  1.14364  1.0613
```

```
In [66]: mean(MCorJC)
```

```
Out[66]: 0.820839642456658
```

```
In [67]: mean(MCorJ)
```

```
Out[67]: 0.8207606635051912
```

```
In [68]: mean(MCorC)
```

```
Out[68]: 0.8205464279417031
```

```
In [69]: mean(MCorN)
```

```
Out[69]: 0.8204780702852285
```

```
In [70]: mean(MCorJCL)
```

```
Out[70]: 0.8208574453948086
```

```
In [71]: mean(MCorCL)
```

```
Out[71]: 0.6534856894679785
```

```
In [72]: mean(MRegJC)
```

```
Out[72]: 0.9463122703476244
```

```
In [73]: mean(MRegJ)
```

```
Out[73]: 0.9463558799716341
```

```
In [74]: mean(MRegC)
```

```
Out[74]: 0.9456697488804044
```

```
In [75]: mean(MRegN)
```

```
Out[75]: 0.9455209624497579
```

```
In [76]: mean(MRegJCL)
```

```
Out[76]: 0.9462193027418531
```

```
In [77]: mean(MRegCL)
```

```
Out[77]: 1.161298411673175
```

```
In [78]: std(MCorJC)
```

```
Out[78]: 0.061784625795076265
```

```
In [79]: std(MCorJ)
```

```
Out[79]: 0.06179998961609792
```

```
In [80]: std(MCorC)
```

```
Out[80]: 0.06183963403562901
```

```
In [81]: std(MCorN)
```

```
Out[81]: 0.06186812127149718
```

```
In [82]: std(MCorJCL)
```

```
Out[82]: 0.06170332174141645
```

```
In [83]: std(MCorCL)
```

```
Out[83]: 0.06023180119312978
```


In [84]: std(MRegJC)

Out[84]: 0.06947359817044067

In [85]: std(MRegJ)

Out[85]: 0.06931258631303457

In [86]: std(MRegC)

Out[86]: 0.06979090529003662

In [87]: std(MRegN)

Out[87]: 0.06981533820807415

In [88]: std(MRegJCL)

Out[88]: 0.06933494584117418

In [89]: std(MRegCL)

Out[89]: 0.10689327435634119