```
**************************

There are 18653 genes.Controls: 1602, NAS: 1445


 There are 18653 gene objects in the arrayList.
Printout first 50 control means:

0.017478152309612985        0.01373283395755306 0.02372034956304619 0.0686641697877653  0.00749063670411985
0.017478152309612985        0.009987515605493134        0.024968789013732832        0.04369538077403246 0.00749063670411985
0.018726591760299626        0.011235955056179775        0.02122347066167291 0.0012484394506866417
        0.008739076154806492
0.012484394506866416        0.017478152309612985        0.00749063670411985 0.02122347066167291 0.01373283395755306
0.04244694132334582 0.0     0.017478152309612985        0.052434456928838954        0.011235955056179775
0.08489388264669163 0.00624219725343208         0.04307116104868914 0.033707865168539325        0.041822721598002495
0.026217228464419477        0.0599250936329588  0.08739076154806492 0.0749063670411985  0.15792759051186017
0.056179775280898875        0.05368289637952559 0.12983770287141075 0.0449438202247191  0.03870162297128589
0.1373283395755306  0.05867665418227216 0.04868913857677903 0.05118601747815231 0.019975031210986267
0.0599250936329588  0.046192259675405745        0.056179775280898875        0.039950062421972535
        0.004993757802746567
0.06117353308364544 0.03620474406991261 0.056179775280898875        0.04369538077403246 0.06991260923845194
0.06679151061173533 0.04868913857677903 0.10611735330836454 0.03870162297128589 0.033707865168539325
0.052434456928838954        0.06491885143570537 0.033707865168539325        0.009363295880149813
        0.019975031210986267
0.02247191011235955 0.04119850187265917 0.008739076154806492        0.009987515605493134        0.004993757802746567
0.02247191011235955 0.011235955056179775        0.03620474406991261 0.02372034956304619 0.039950062421972535
0.035580524344569285        0.019975031210986267        0.008739076154806492        0.02247191011235955 0.02746566791510612
0.016229712858926344        0.004993757802746567        0.00624219725343208         0.016229712858926344
        0.017478152309612985
0.017478152309612985        0.03620474406991261 0.018726591760299626        0.0     0.003745318352059925
0.0024968789013732834       0.00624219725343208         0.01373283395755306 0.00624219725343208         0.00749063670411985
0.01373283395755306 0.02746566791510612 0.008739076154806492        0.015605493133583021        0.03870162297128589
0.026217228464419477        0.0449438202247191  0.03870162297128589 0.039950062421972535        0.049937578027465665
0.046192259675405745        0.011235955056179775        0.0     0.00749063670411985 0.00749063670411985
0.01373283395755306 0.02247191011235955 0.0149812734082397  0.02746566791510612 0.10611735330836454
0.07053682896379526 0.0299625468164794  0.033707865168539325        0.04244694132334582 0.02122347066167291
0.03245942571785269 0.017478152309612985        0.012484394506866416        0.04244694132334582 0.1111111111111111
0.018726591760299626        0.018726591760299626        0.016229712858926344        0.012484394506866416
        0.003745318352059925
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0.006242197253433208   0.016229712858926344   0.02372034956304   0.001248439450686   0.003745318352059925
0.0149812734082397 0.02122347066167291 0.02122347066167291 0.05742821473158552 0.019975031210986
0.003745318352059925   0.024968789013732832   0.009987515605493134   0.00749063670411985 0.05867665418227216
0.006242197253433208   0.026217228464419477   0.008739076154806492   0.026217228464419477
      0.009987515605493134
0.004993757802746567   0.0599250936329588 0.011235955056179775   0.0   0.04868913857677903
0.019975031210986267   0.003745318352059925   0.004993757802746567   0.031835205992509365
      0.011235955056179775
0.011235955056179775   0.02122347066167291 0.013108614232209739   0.024968789013732832   0.02247191011235955
0.039950062421972535   0.02122347066167291 0.006242197253433208   0.019975031210986267
      0.008739076154806492
0.008739076154806492   0.017478152309612985   0.019975031210986267   0.02247191011235955 0.0149812734082397
0.04244694132334582 0.031210986267166042   0.012484394506866416   0.0149812734082397 0.03495630461922597
0.03245942571785269 0.0237203495630461 0.017478152309612985   0.012484394506866416   0.0149812734082397
0.024968789013732832   0.026217228464419477   0.03245942571785269 0.019975031210986267   0.00749063670411985
0.02871410736579276 0.0149812734082397 0.03620474406991261 0.05742821473158552 0.02247191011235955
0.016229712858926344   0.003745318352059925   0.0   0.00686641697877653 0.02122347066167291

 Printout sample-variance

0.432226625639064   0.3347162988948851 0.7994463667820465 7.054630093030107   0.08367907472372127
0.46749631829117627 0.13554626980041973 1.1065001616359311 2.8326404137880012 0.08367907472372127
0.5041491361453813 0.2240662827312806 0.7994463667820465 0.002766250404089 0.11687407957279407
0.24965409896914217 0.46749631829117627 0.08367907472372127 0.5816041474599555 0.304979107050916
2.573304438404495 0.0   0.432226625639064   3.890039630751234 0.17704002586175008
12.233050849488592 0.04426000646543752 2.573304438404495 1.798754325259434 2.4896253636808447
1.0518667161553172 5.601657068282469 10.63346655332277 8.367907472372295 36.58366159409309
5.114796997162223 3.994465583506275 24.965409896914895 3.104424515989888 2.407329414159287
29.34715053699166 5.115406185270406 3.2925295434681225 3.994465583506275 0.6224063409202112
5.355460782318161 3.197785467128186 4.3160421929812225 2.326416589839822 0.04426000646543752

 Printout control-variance:

0.5065609311706554 0.3156665902951949 0.9245309779754258 7.617008078230001   0.09732216751532452
0.5065609311706554 0.16968801482539406 1.0230969091381565 3.1004627486551817 0.09732216751532452
0.5801736593303872 0.2133568993813906 0.7423710374516048 0.0037437597509981184   0.1310097708700479
0.2620164245380099 0.5065609311706554 0.09732216751532452 0.7423710374516048 0.3156665902951949
2.9270372084835685 0.0   0.5065609311706554 4.4541794666775445 0.2133568993813906
11.623254951284935 0.06862520476120942 2.9282322658476057 1.852796364095611   2.759798924876767

1.1266534809017372 5.809143065550991   12.314460233074751 9.058059448161476   39.77406012459235
5.109203383411012   4.667530131655047   27.119222071038973 3.2788789294283274 2.436704431570189
30.330703973339443 5.570839197569466   3.8440713153505897 4.245819442301573   0.6587770280907392
5.809143065550991   3.4622857508011857 5.109203383411012   2.595158049940408   0.044918882607731025
6.05243757413132   2.134769116631655   5.109203383411012   3.1004627486551817 7.895237071014687
7.076687458404537   3.8440713153505897 18.134806523057748 2.436704431570189   1.852796364095611
4.4541794666775445 6.812264943477859   1.852796364095611   0.13224691046304426 0.6587770280907392
0.8309556874133178 2.758602308911668   0.1310097708700479 0.16968801482539406 0.044918882607731025
0.8309556874133178 0.2133568993813906 2.134769116631655   0.9245309779754258 2.595158049940408
1.9924918290337317 0.6587770280907392 0.1310097708700479 0.8309556874133178 1.235200693265713
0.43793884361154606 0.044918882607731025   0.06862520476120942 0.43793884361154606 0.5065609311706554
0.5065609311706554 2.134769116631655   0.5801736593303872 0.0   0.026203201054860986
0.01247816010261697 0.06862520476120942 0.3156665902951949 0.06862520476120942 0.09732216751532452
0.3156665902951949 1.235200693265713   0.1310097708700479 0.37553674324068864 2.436704431570189
1.1266534809017372 3.2788789294283274 2.436704431570189   2.595158049940408   4.042450058525315
3.4622857508011857 0.2133568993813906 0.0   0.09732216751532452 0.09732216751532452
0.3156665902951949 0.8309556874133178 0.37430739665305923 1.235200693265713   18.134806523057748
7.896397839155361   1.4672670397957592 1.852796364095611   2.9270372084835685 0.7423710374516048
1.7192959487280681 0.5065609311706554 0.2620164245380099 2.9270372084835685 19.876543209874928
0.5801736593303872 0.5801736593303872 0.43793884361154606 0.2620164245380099 0.026203201054860986
0.06862520476120942 0.43793884361154606 0.9245309779754258 0.0037437597509981184   0.026203201054860986
0.37430739665305923 0.7423710374516048 0.7423710374516048 5.337525970190382   0.5826222215987429
0.026203201054860986   1.0230969091381565 0.16968801482539406 0.09732216751532452 5.570839197569466
0.06862520476120942 1.1266534809017372 0.1310097708700479 1.1266534809017372 0.16968801482539406
0.044918882607731025   5.809143065550991   0.2133568993813906 0.0   3.8440713153505897
0.6587770280907392 0.026203201054860986   0.044918882607731025   1.5919952587356527 0.2133568993813906
0.2133568993813906 0.7423710374516048 0.2632488883278202 1.0230969091381565 0.8309556874133178
2.595158049940408   0.7423710374516048 0.06862520476120942 0.6587770280907392 0.1310097708700479
0.1310097708700479 0.5065609311706554 0.6587770280907392 0.8309556874133178 0.37430739665305923
2.9270372084835685 1.3573279966832006 0.2620164245380099 0.37430739665305923 1.9912874200633217
1.7192959487280681 0.9245309779754258 0.5065609311706554 0.2620164245380099 0.37430739665305923
1.0230969091381565 1.0255298853961192 1.7192959487280681 0.6587770280907392 0.09732216751532452
1.3487385462305383 0.37430739665305923 2.134769116631655   5.337525970190382   0.8309556874133178
0.43793884361154606 0.026203201054860986   0.0   0.06986546155632983 0.7423710374516048

 Printout Tj ArrayList:

55.27469308636255   69.6937866608777   41.1019218449704   14.441365805346658 123.30181608532772
55.27469308636255   94.29068998457973   39.096980591697296 22.57727496657147   123.30181608532772

51.70865570599116	84.36568047337303	45.799200513956556	534.2223147376866	106.86225849434524
76.33109273689315	55.27469308636255	123.30181608532772	45.799200513956556	69.6937866608777
23.231682809809328	NaN	55.27469308636255	18.8586922975192	84.36568047337303
11.700681140523843	145.71905518965426	23.563704561539375	29.14513491414289	24.277130988081584
37.278542792398376	16.525673221803242	11.368748394183083	13.247870660018304	6.3609296915496385
17.61527057079378	18.42516225374757	7.66983652610472	21.958724780531377	25.444202093910828
7.253375991318205	16.87357984430996	20.290986717265465	19.313115198217062	48.57485709958963
16.525673221803242	21.37316366301543	17.61527057079378	24.66131109104111	178.09882026368825
16.191823343847627	27.16921448232083	17.61527057079378	22.57727496657147	14.185767823385433
15.12006862376306	20.290986717265465	9.374238417368897	25.444202093910828	29.14513491414289
18.8586922975192	15.266581799577656	29.14513491414289	113.42419983559219	48.57485709958963
43.32360984502604	23.925159413804202	106.86225849434524	94.29068998457973	178.09882026368825
43.32360984502604	84.36568047337303	27.16921448232083	41.1019218449704	24.66131109104111
28.607394604796156	48.57485709958963	106.86225849434524	43.32360984502604	35.62174166504847
59.369020079575606	178.09882026368825	145.71905518965426	59.369020079575606	55.27469308636255
55.27469308636255	27.16921448232083	51.70865570599116	NaN	228.97965738758217
320.56007994007894	145.71905518965426	69.6937866608777	145.71905518965426	123.30181608532772
69.6937866608777	35.62174166504847	106.86225849434524	66.57138202846113	25.444202093910828
37.278542792398376	21.958724780531377	25.444202093910828	24.66131109104111	19.78997856294704
21.37316366301543	84.36568047337303	NaN	123.30181608532772	123.30181608532772
69.6937866608777	43.32360984502604	64.11842302503388	35.62174166504847	9.374238417368897
14.310322542219714	32.71388145315491	29.14513491414289	23.231682809809328	45.799200513956556
30.244938364723946	55.27469308636255	76.33109273689315	23.231682809809328	8.955279503106318
51.70865570599116	51.70865570599116	59.369020079575606	76.33109273689315	228.97965738758217
145.71905518965426	59.369020079575606	41.1019218449704	534.2223147376866	228.97965738758217
64.11842302503388	45.799200513956556	45.799200513956556	17.236450092011168	54.92409800675039
228.97965738758217	39.096980591697296	94.29068998457973	123.30181608532772	16.87357984430996
145.71905518965426	37.278542792398376	106.86225849434524	37.278542792398376	94.29068998457973
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48.57485709958963	228.97965738758217	178.09882026368825	32.03527128623719	84.36568047337303
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24.66131109104111	45.799200513956556	145.71905518965426	48.57485709958963	106.86225849434524
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34.1059430150944	64.11842302503388	27.16921448232083	17.236450092011168	43.32360984502604
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Print control mean == 0 gene names: 1709

AAR2   ABHD17A   ABRA   ACO2   ACTA1   ACTL8   ACTR3B ADAM2   ADAM30 ADHFE1 ADI1   ADM   ADNP2   ADO   ADRA2C AGAP3   AGAP5
        AGAP6   AGAP7   AGAP8
AGBL5   AGRN   AGTR1   AIFM3   AK1   AK3   AK5   AKIRIN1   ALOX5   ALX4   AMELX   AMIGO3 AMTN   AMY1A   AMY1B   ANAPC13
        ANGPTL7   ANKDD1A   ANKRD2 ANKRD20A1
ANKRD20A2   ANKRD20A3   ANKRD39   ANKRD6 ANKRD7 ANTXR2 ANXA7   ANXA8   AP1M2   AP1S1   AP2M1   AP4S1   APOLD1 ARCN1   ARF1
        ARF3   ARF4   ARHGAP9   ARHGDIB   ARHGEF40
ARL1   ARL14EP   ARL16   ARL17A ARL2   ARL3   ARL4A   ARL4C   ARL5A   ARL5C   ARL6IP6   ARL8A   ARL8B   ARMCX2 ARMCX3 ARMCX4
        ARMCX6 ARPC2   ASAH2   ASB8