

PuMaQC Report 3. Quality Control/Quality Assessments

Files imported at PREPROCESSING session are ready for quality control.

Files imported: 73

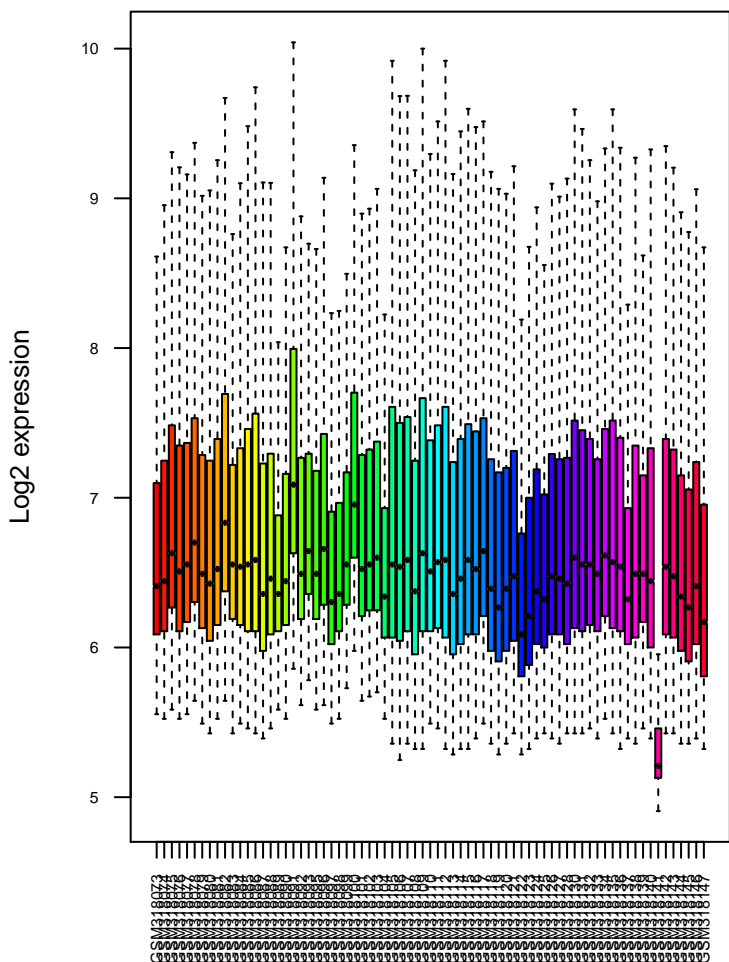
Series imported: 1

Number of features: 54675

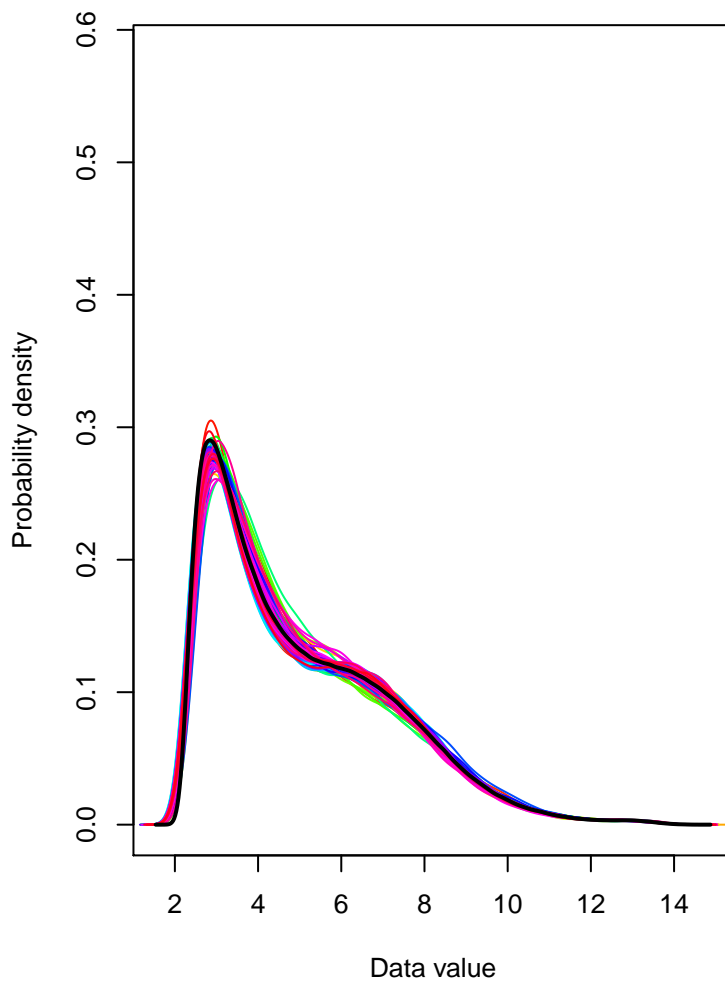
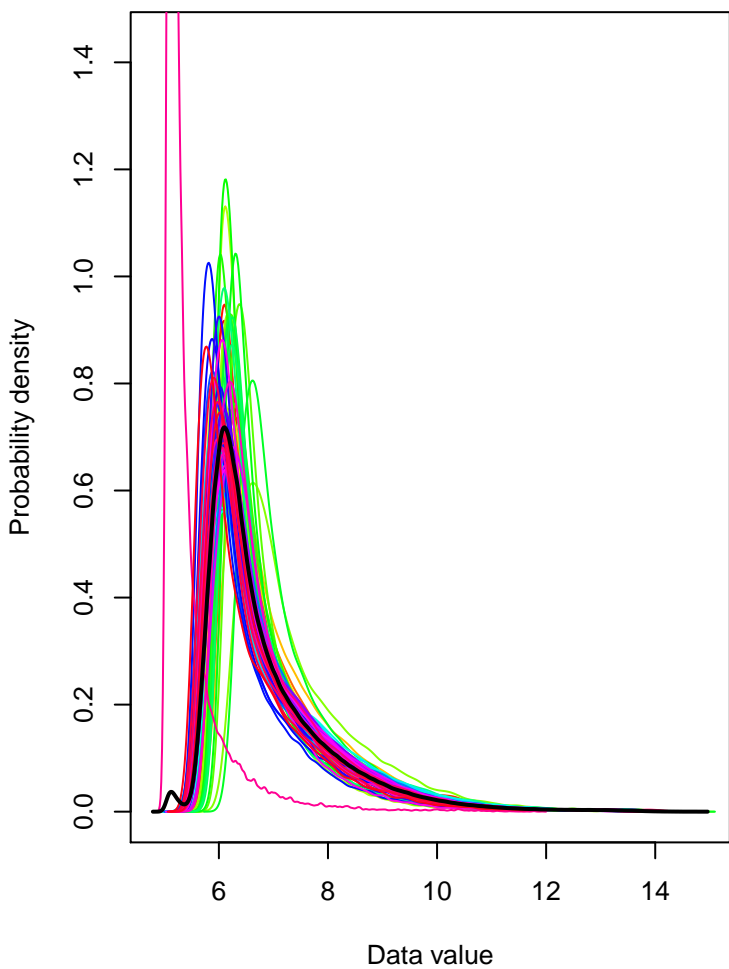
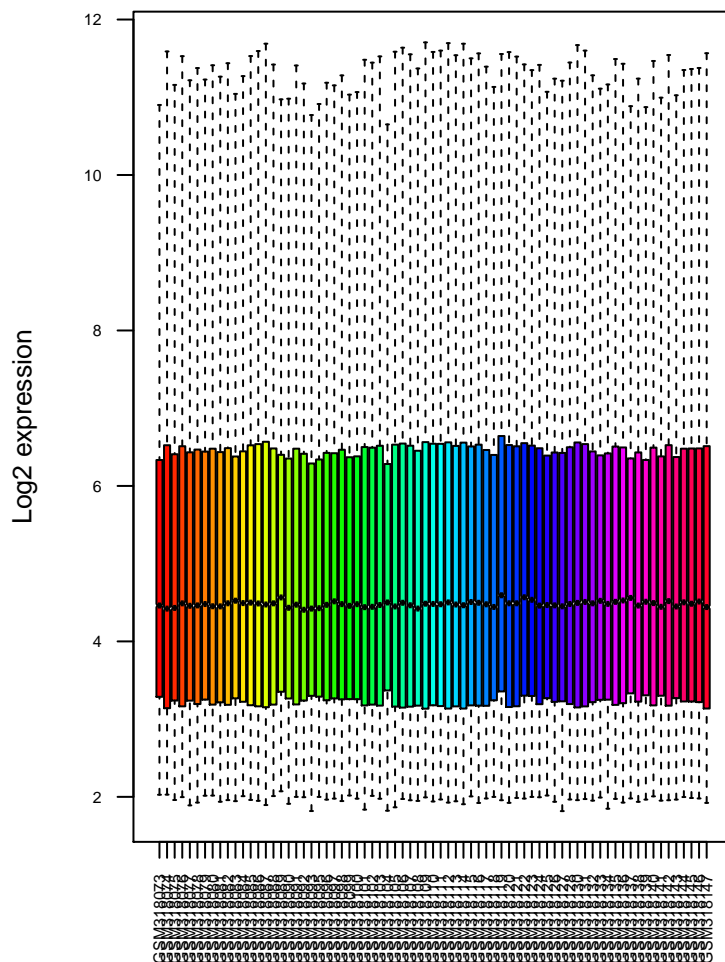
Check /arrayQM/ folder for QC analysis by arrayQualityMetrics package.

	GSM	Series	Date	Organism	Name	Characteristics
1	GSM318073	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: F; TSP_Patient# 24270; S
2	GSM318074	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24271; Smoking_Sta
3	GSM318075	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24272; Smoking_Sta
4	GSM318076	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24273; Smoking_Sta
5	GSM318077	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24275; Smoking_Sta
6	GSM318078	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24276; Smoking_Sta
7	GSM318079	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24278; Smoking_Sta
8	GSM318080	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24279; Smoking_Sta
9	GSM318081	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: F; TSP_Patient# 24280; S
10	GSM318082	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24282; Smoking_Sta
11	GSM318083	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24283; Smoking_Sta
12	GSM318084	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24284; Smoking_Sta
13	GSM318085	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24286; Smoking_Sta
14	GSM318086	GSE12667	2008-09-04	Homo sapiens	Lung	Race: N/A; Gender: F; TSP_Patient# 24287; Smoking_Statu
15	GSM318087	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24288; Smoking_Sta
16	GSM318088	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: M; TSP_Patient# 24289; S
17	GSM318089	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24248; Smoking_Sta
18	GSM318090	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24249; Smoking_Sta
19	GSM318091	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24250; Smoking_Sta
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21	GSM318093	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24252; Smoking_Sta
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36	GSM318109	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24294; Smoking_Sta
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38	GSM318111	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24296; Smoking_Sta
39	GSM318112	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24297; Smoking_Sta
40	GSM318113	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24298; Smoking_Sta
41	GSM318114	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24299; Smoking_Sta
42	GSM318115	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24300; Smoking_Sta
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46	GSM318119	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: M; TSP_Patient# 24311; S
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50	GSM318123	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24316; Smoking_Sta
51	GSM318124	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24317; Smoking_Sta
52	GSM318125	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24318; Smoking_Sta
53	GSM318126	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24319; Smoking_Sta
54	GSM318127	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24320; Smoking_Sta
55	GSM318128	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: M; TSP_Patient# 24321; S
56	GSM318130	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24324; Smoking_Sta
57	GSM318131	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24325; Smoking_Sta
58	GSM318132	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24326; Smoking_Sta
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60	GSM318134	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24328; Smoking_Sta
61	GSM318135	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24329; Smoking_Sta
62	GSM318136	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24331; Smoking_Sta
63	GSM318137	GSE12667	2008-09-04	Homo sapiens	Lung	Race: N/A; Gender: F; TSP_Patient# 24333; Smoking_Statu
64	GSM318138	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: M; TSP_Patient# 11974; S
65	GSM318139	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24335; Smoking_Sta
66	GSM318140	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24337; Smoking_Sta
67	GSM318141	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24338; Smoking_Sta
68	GSM318142	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24339; Smoking_Sta
69	GSM318143	GSE12667	2008-09-04	Homo sapiens	Lung	Race: African American; Gender: F; TSP_Patient# 24340; S
70	GSM318144	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24341; Smoking_Sta
71	GSM318145	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: M; TSP_Patient# 24342; Smoking_Sta
72	GSM318146	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24330; Smoking_Sta
73	GSM318147	GSE12667	2008-09-04	Homo sapiens	Lung	Race: White; Gender: F; TSP_Patient# 24302; Smoking_Sta

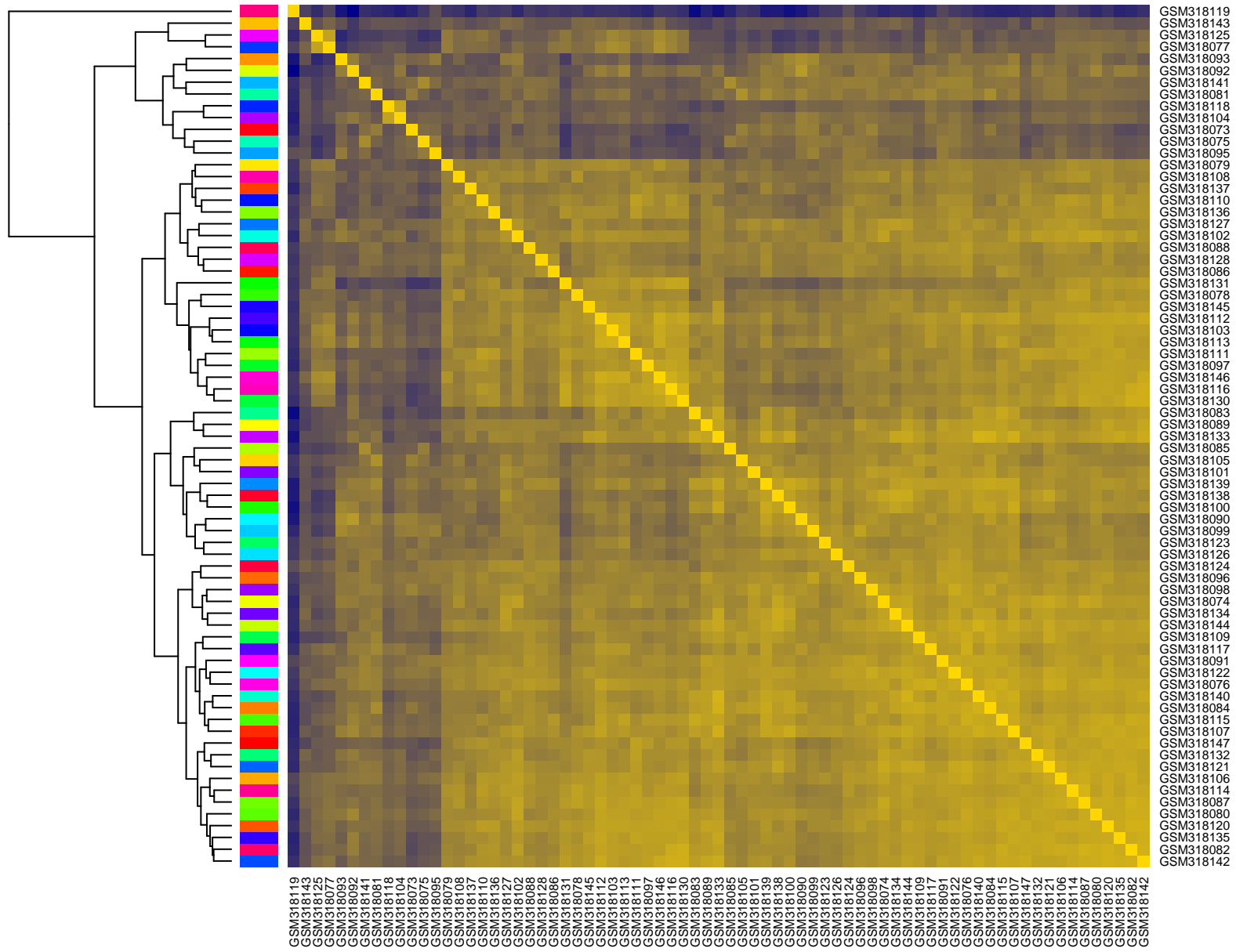
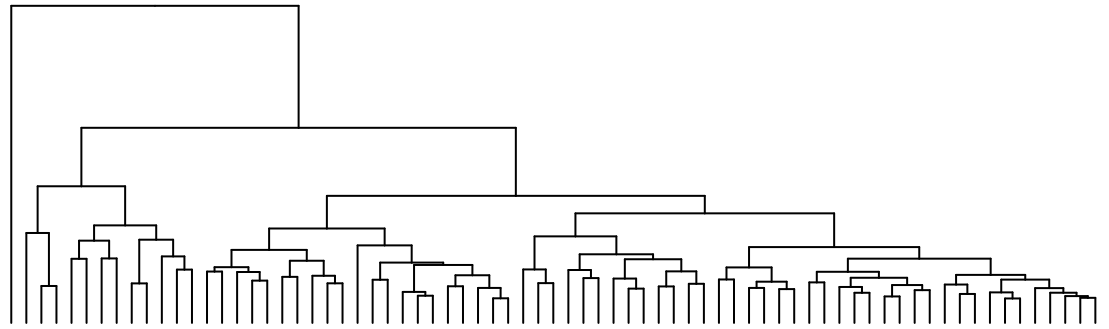
Not-normalized Data



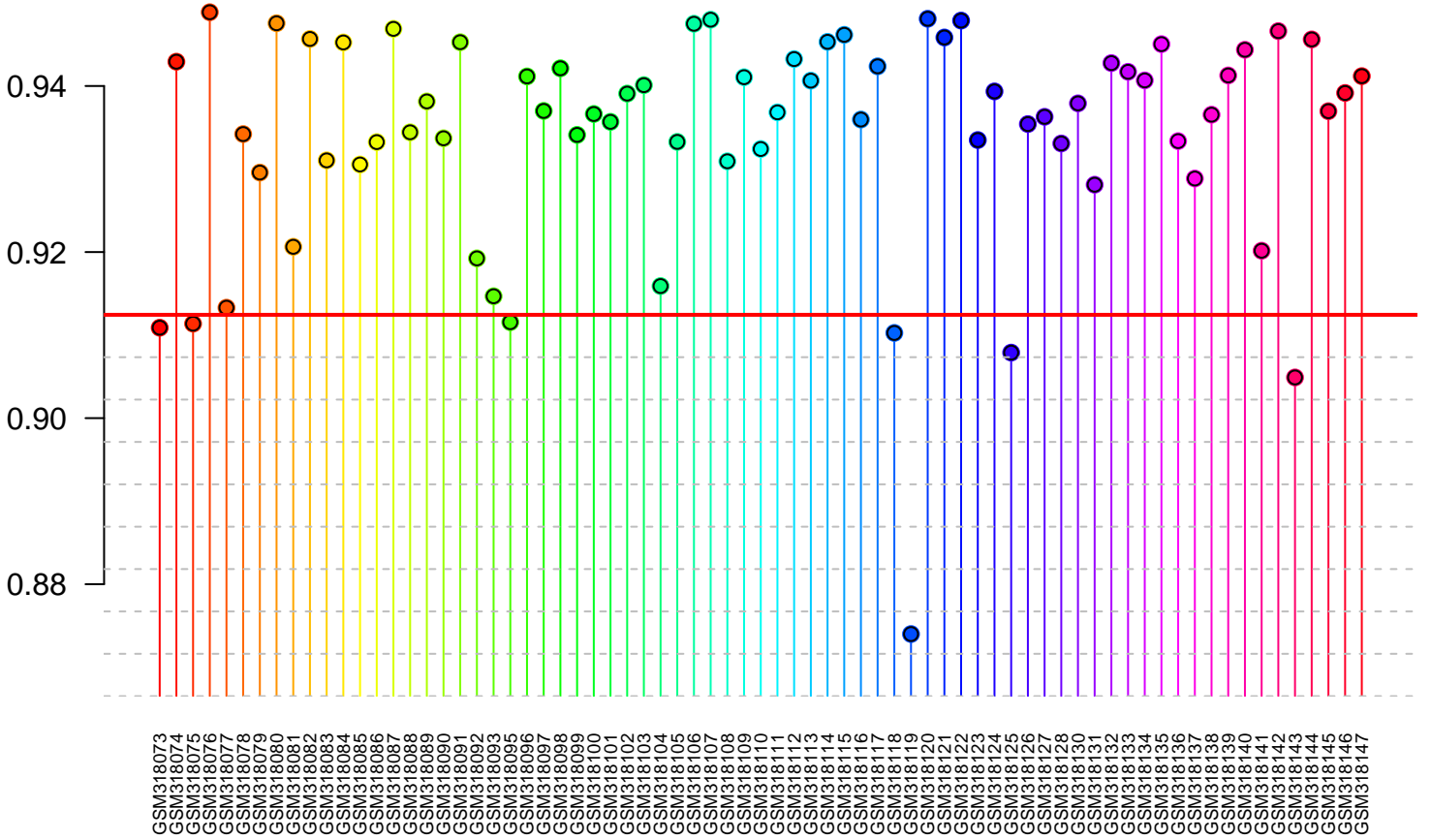
Normalized Data



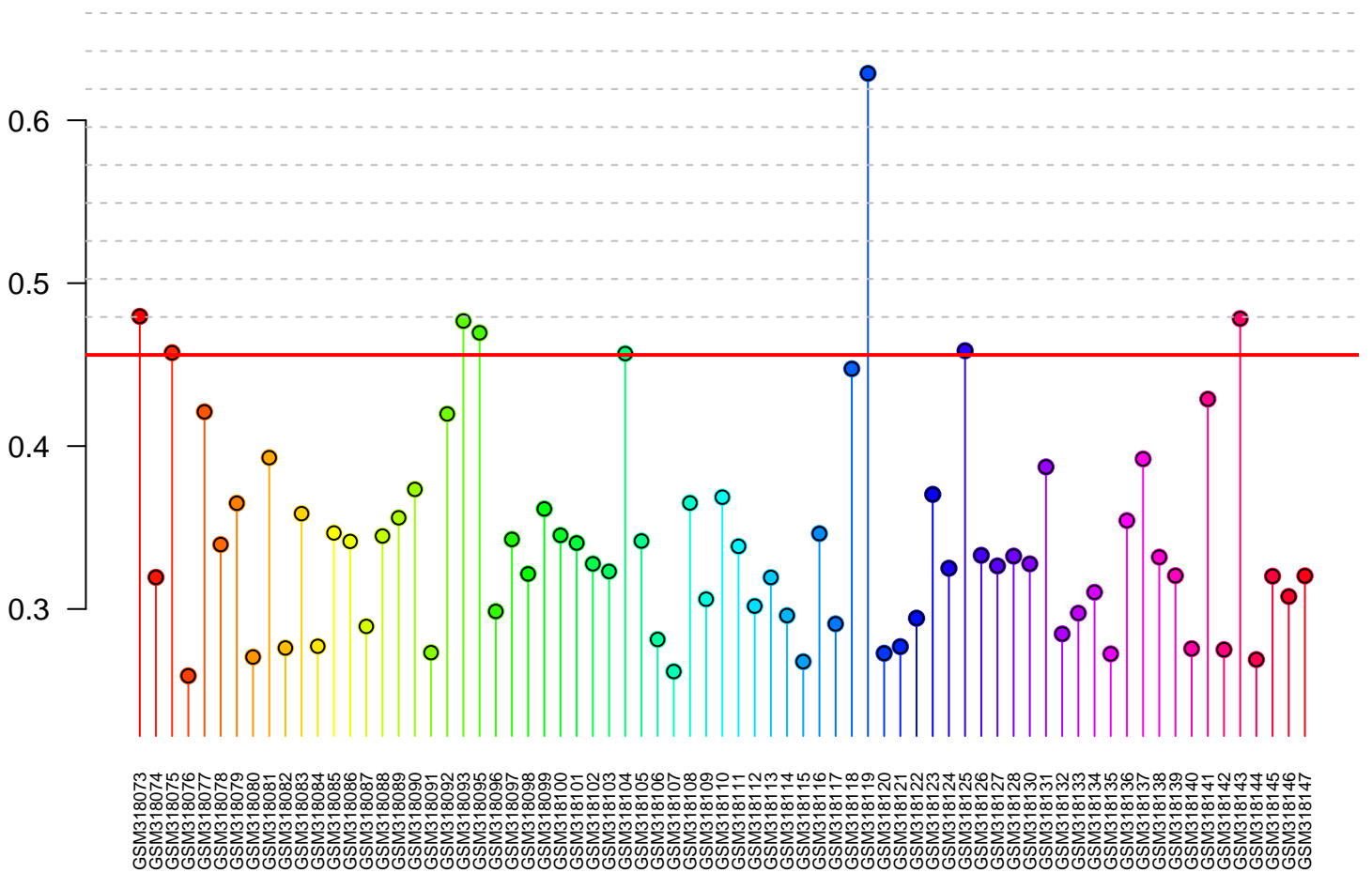
Between-array Correlation



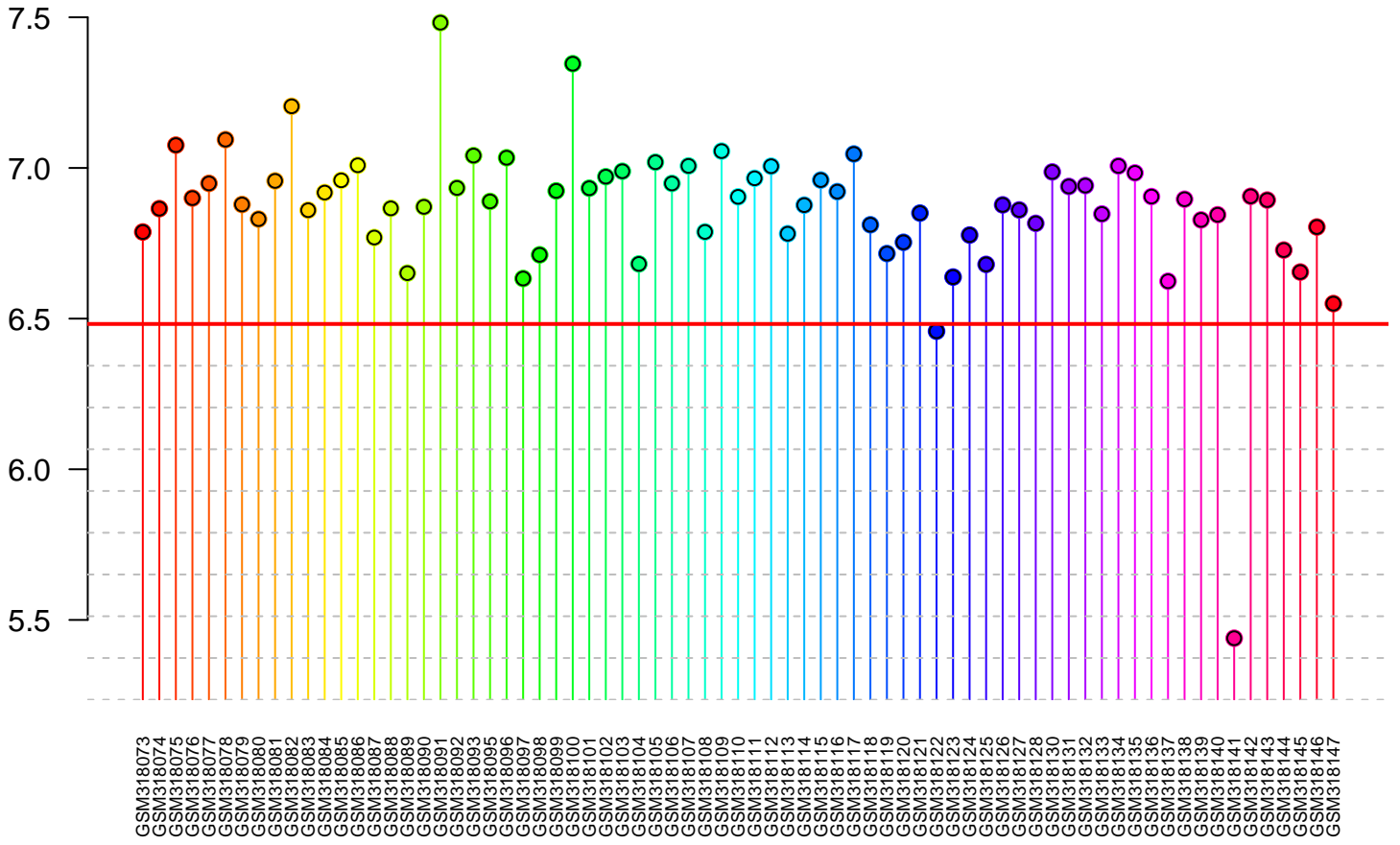
Mean Correlation



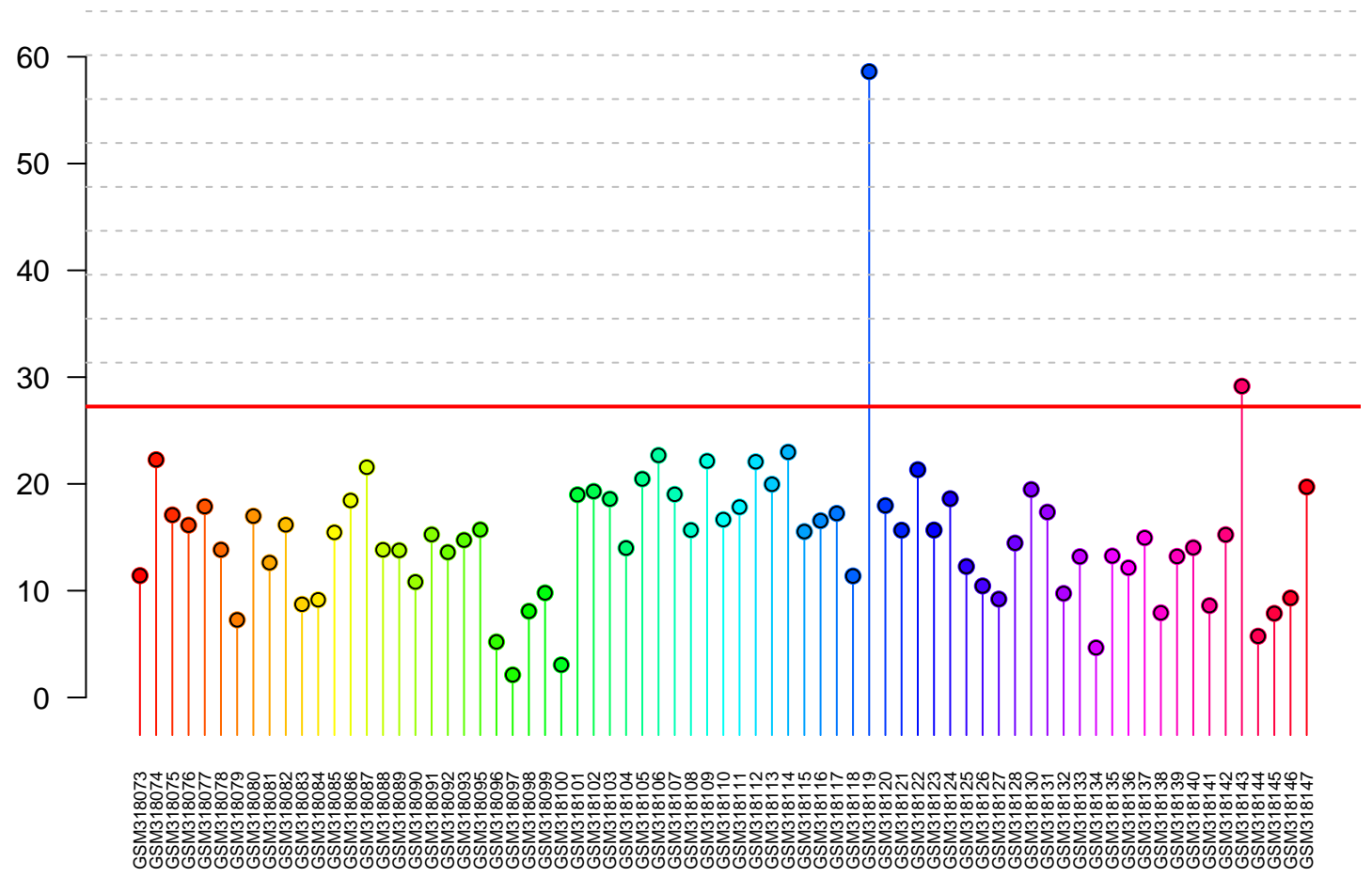
Mean of RLE



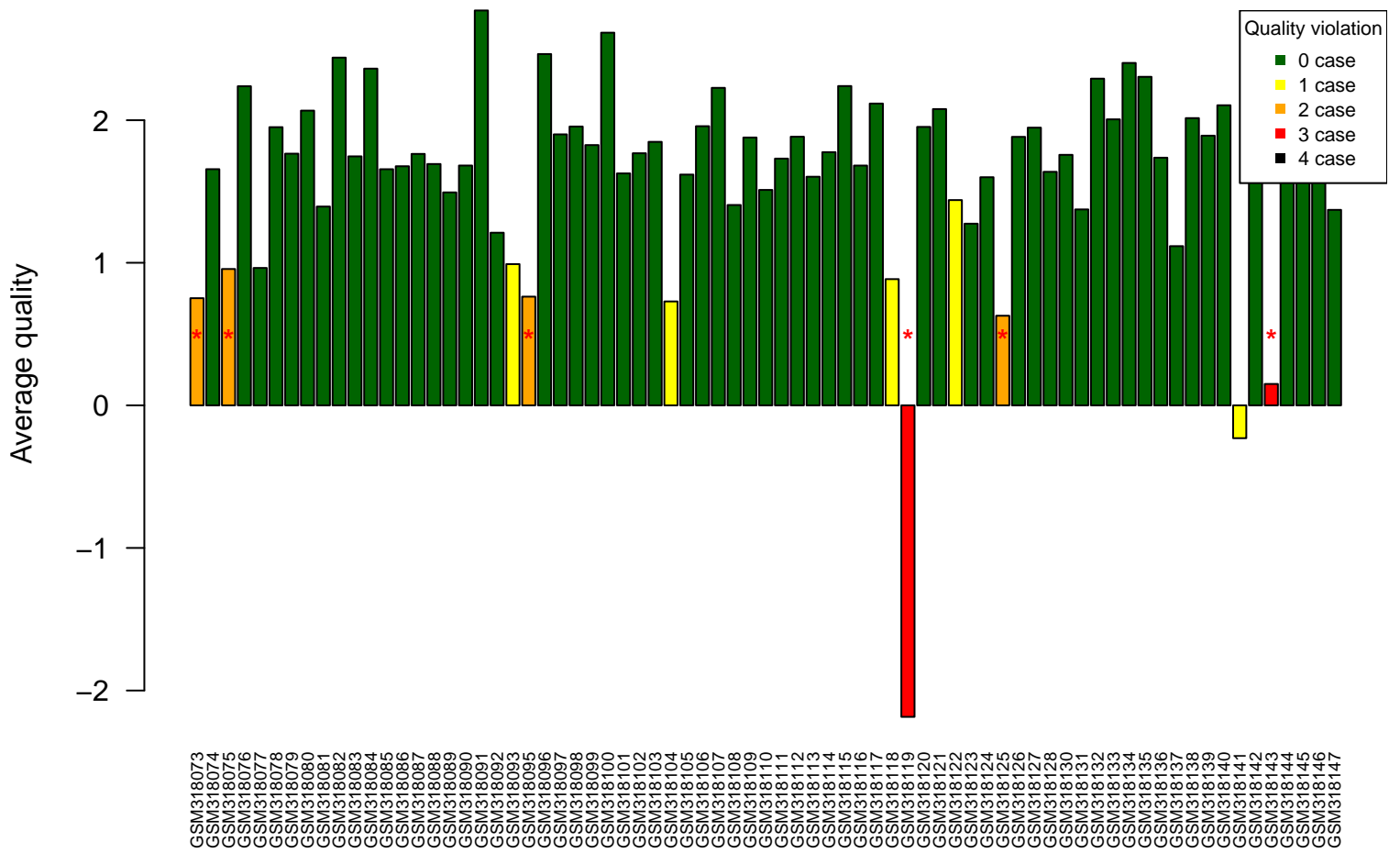
Mean Log2 Expression



MA-plot Bias



Array Quality Summarization



Summary

Quality control was performed on 73 microarray experiments with $\alpha = 0.05$ using 4 metrics:

Mean Correlation, Mean of RLE, Mean Log₂ Expression, MA-plot Bias .

Microarray experiments meet quality limits in the following way:

- * 0 violation: 62
- * 1 violation: 5
- * 2 violations: 4
- * 3 violations: 2
- * 4 violations: 0

It is suggested to exclude 6 microarray experiments.

Good quality data are saved to dataGoodQuality.txt