Report

July 12, 2016

Table 1: Estimations of 1000 simulations, with $\lambda_0 = 0.8$, $\beta_0 = 0.0175$ and $\mu_0 = 0.1$. The initial parameter was $(800, 18, 100)$.

Statistic	Mean	St. Dev.	Min	Max	
λ_0	1.299	0.235	0.351	2.159	
β_0	0.026	0.007	-0.043	0.051	
μ_0		0.191	0.035	0.081	0.329

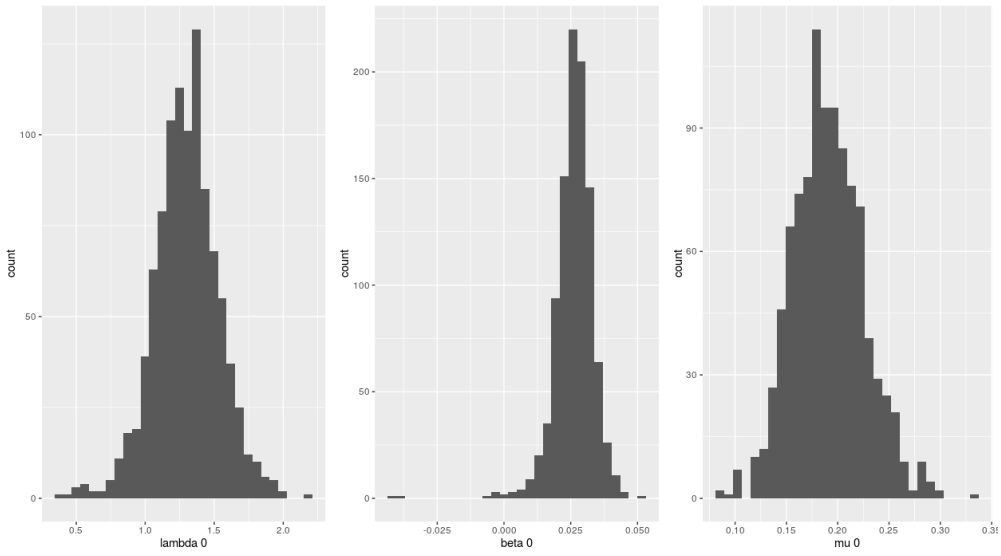


Table 2:

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	1.284	0.326	−0.288	2.059
X2	1,000	0.004	0.035	−0.439	0.089
X3	1,000	0.772	0.089	0.464	1.167
V4	1,000	33.833	1,327.034	−36,730.000	16,236.080

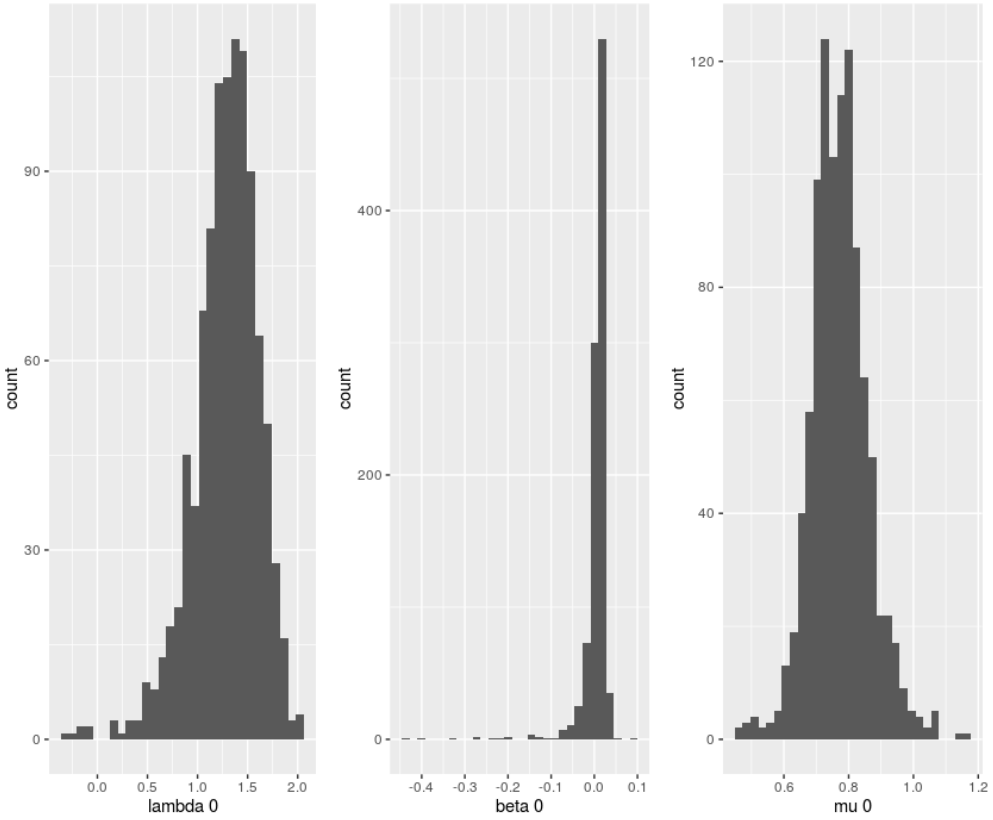


Table 3:

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	1.291	0.340	−0.292	2.274
X2	1,000	0.004	0.033	−0.326	0.069
X3	1,000	0.770	0.092	0.333	1.167
V4	1,000	50.721	6,691.263	−92,207.600	179,176.300

Table 4:

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	0.841	0.060	−0.035	1.061
X2	1,000	0.018	0.011	−0.242	0.024
X3	1,000	0.109	0.018	0.050	0.324
V4	1,000	39.619	3.652	−43.967	67.607

Table 5:

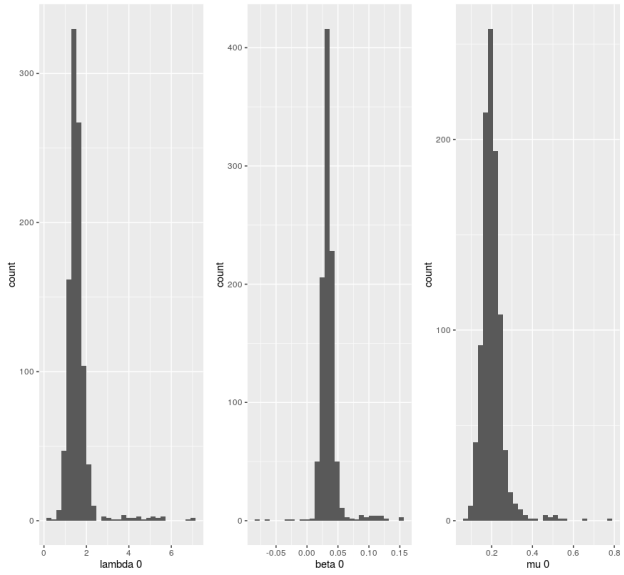
Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	0.843	0.060	0.116	1.132
X2	1,000	0.018	0.004	−0.101	0.025
X3	1,000	0.109	0.018	0.063	0.305
V4	1,000	39.244	12.885	−346.914	44.562

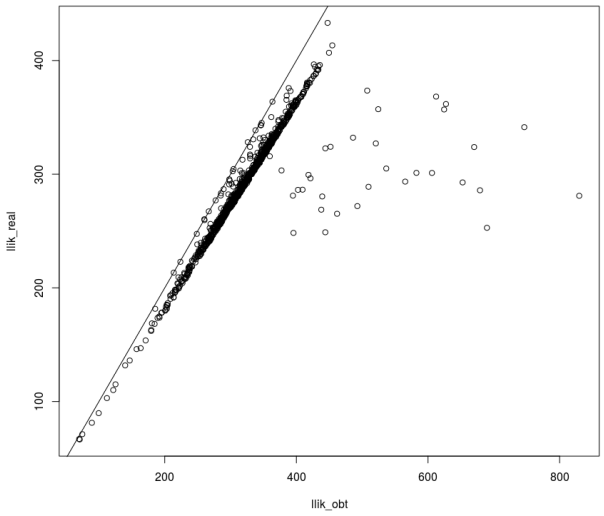
Table 6:

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	1.587	0.638	0.253	7.048
X2	1,000	0.034	0.016	−0.076	0.157
X3	1,000	0.202	0.056	0.070	0.776

Table 7:

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	1.560	0.311	0.597	2.702
X2	1,000	0.034	0.008	−0.017	0.064
X3	1,000	0.197	0.037	0.084	0.479

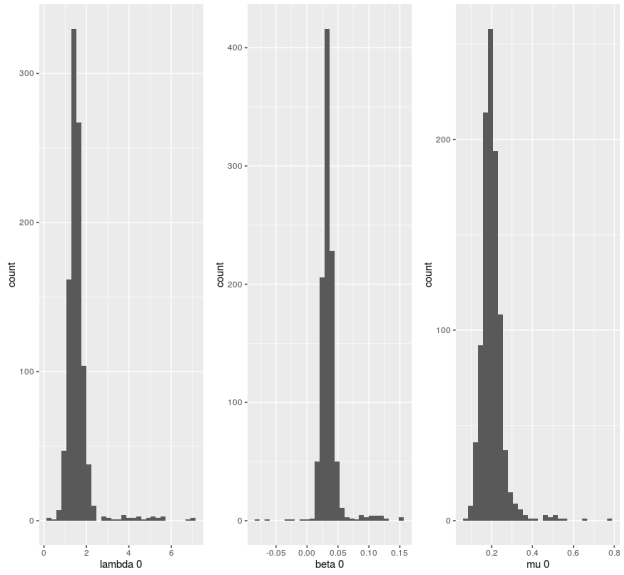




with real initial parameters

Table 8: initial true values

Statistic	real values	Mean	St. Dev.	Min	Max
λ_0	0.8	0.850	0.060	0.746	1.125
β_0	0.0175	0.019	0.001	0.011	0.024
μ_0	0.1	0.110	0.016	0.061	0.179
K	40	39.734	1.758	31.210	62.598



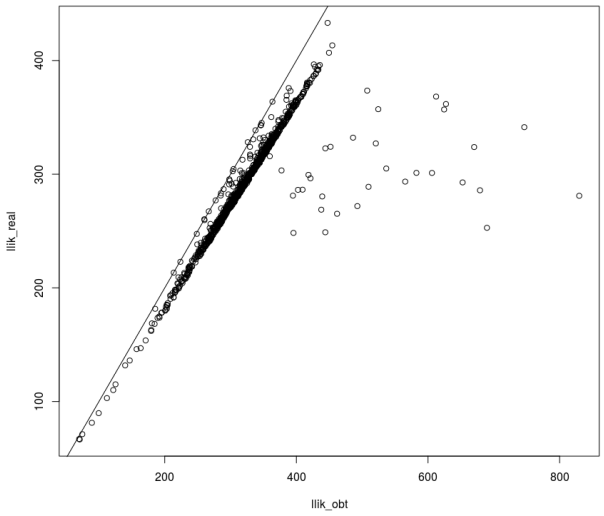
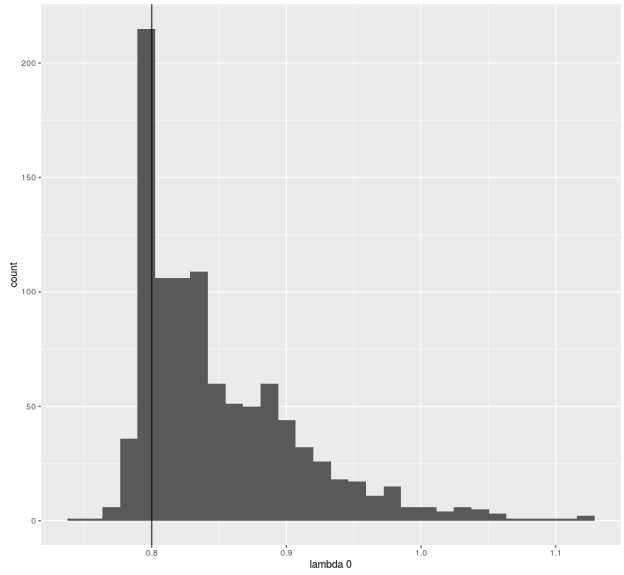


Table 9: starting values (800,10,100)

Statistic	real value	Mean	St. Dev.	Min	Max
λ_0	0.8	2.850	7.858	0.345	113.927
β_0	0.0175	0.063	0.178	-0.028	2.589
μ_0	0.1	0.279	0.427	0.046	4.856
K	40	39.562	32.295	-937.155	276.762

Table 10: starting values (0.3,0.005,0.5)

Statistic	N	Mean	St. Dev.	Min	Max
X1	1,000	1.283	0.297	0.499	2.281
X2	1,000	0.026	0.009	−0.022	0.053
X3	1,000	0.198	0.032	0.038	0.288
V4	1,000	41.957	73.794	−1,917.311	667.766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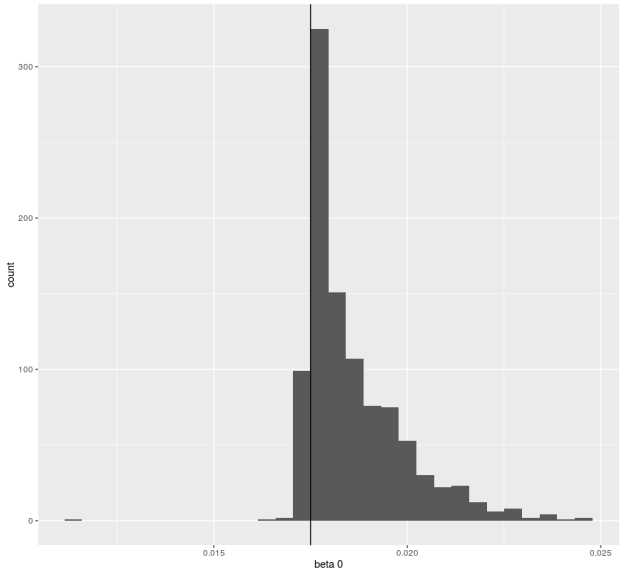
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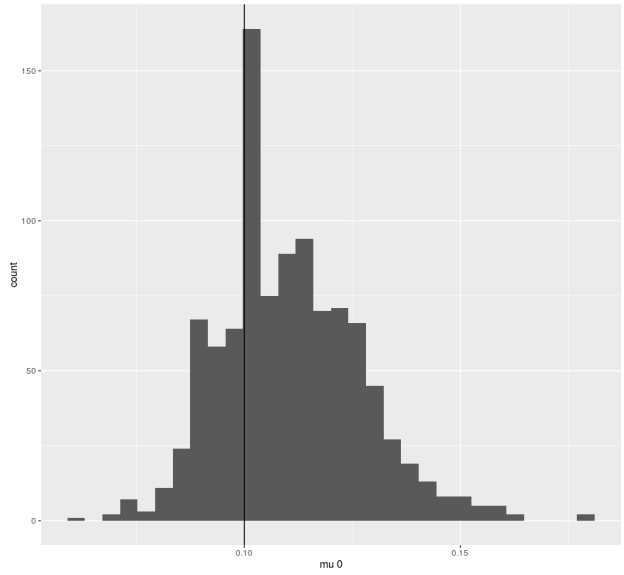
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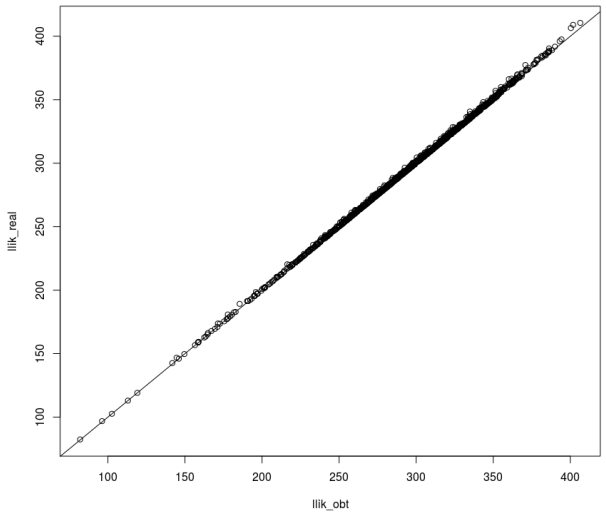
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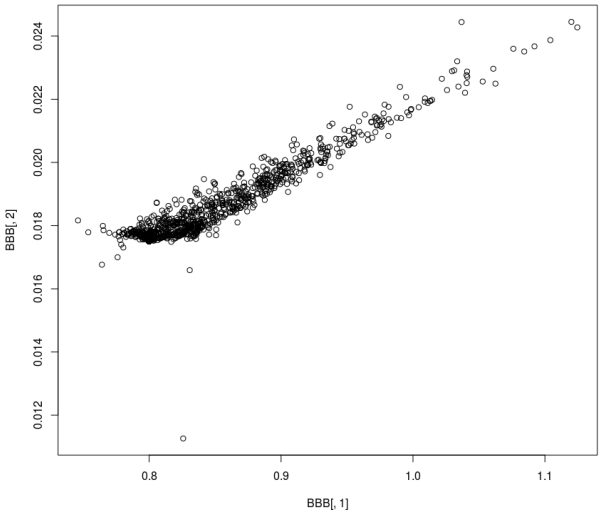
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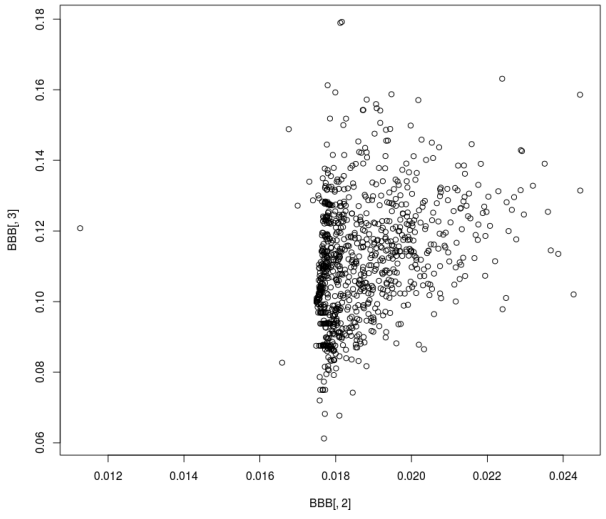
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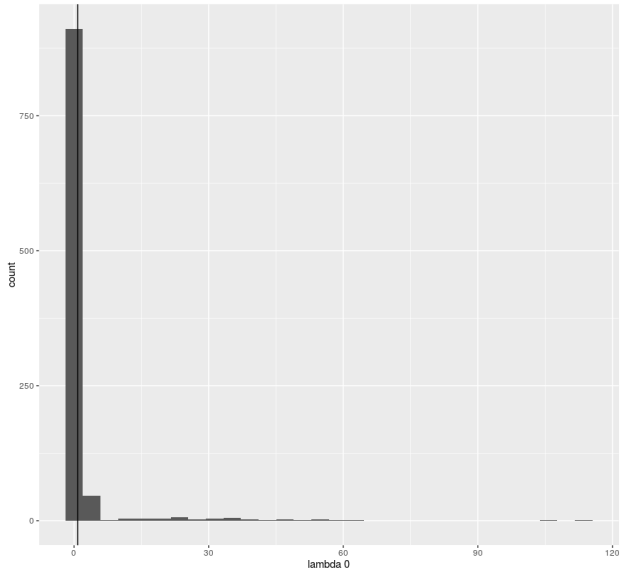
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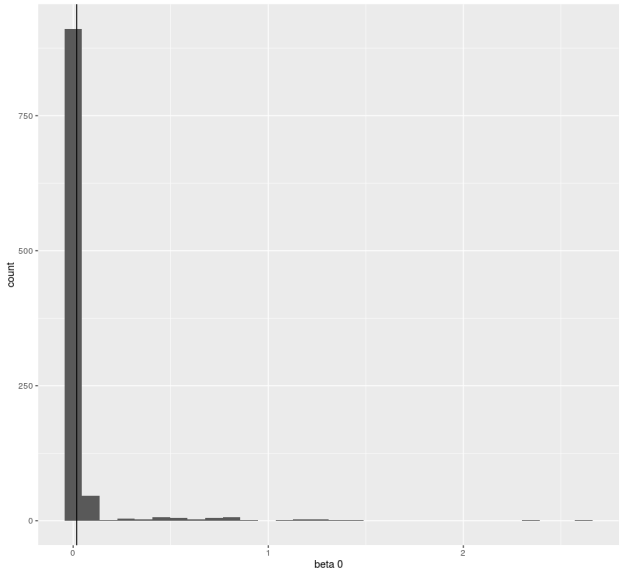
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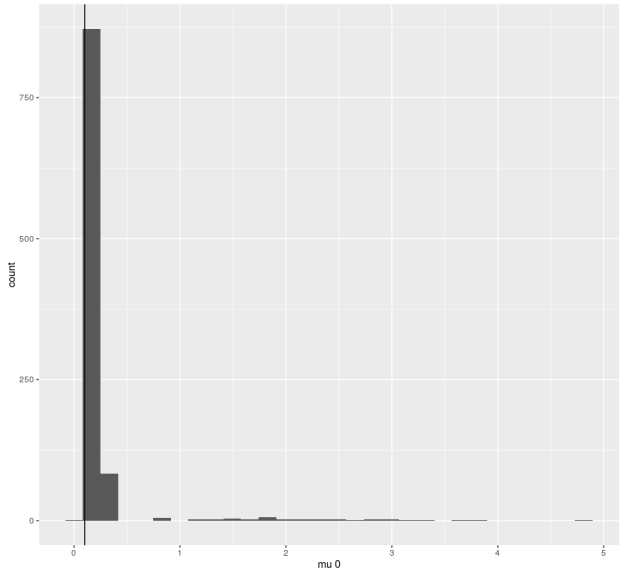
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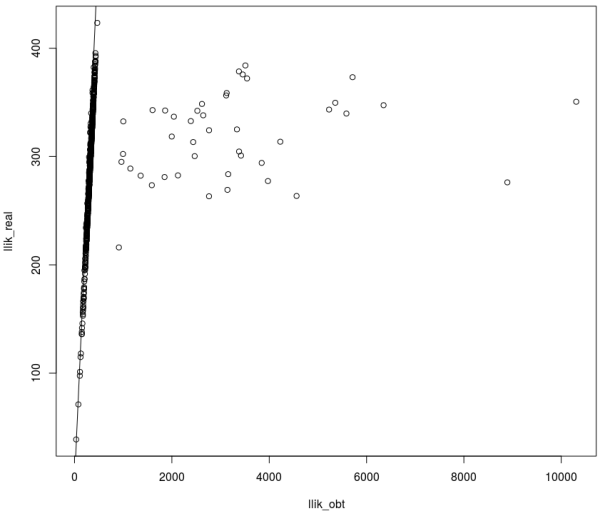
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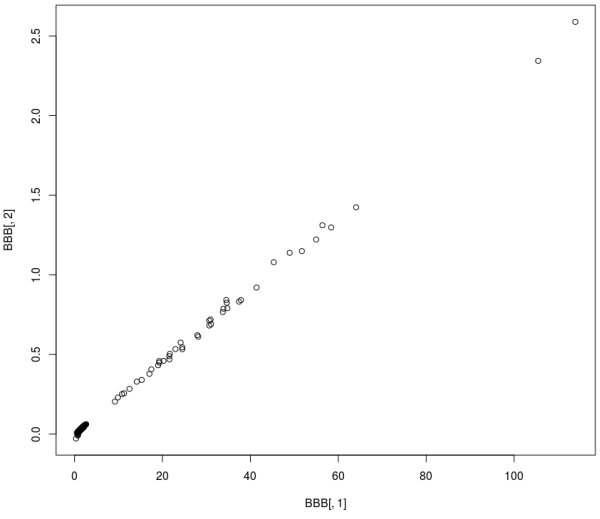
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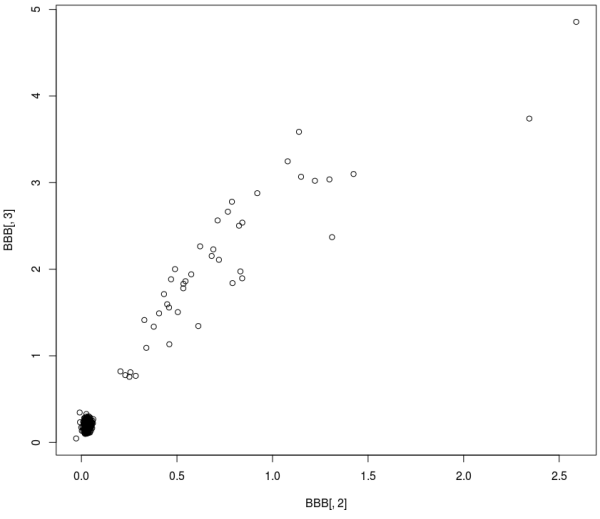
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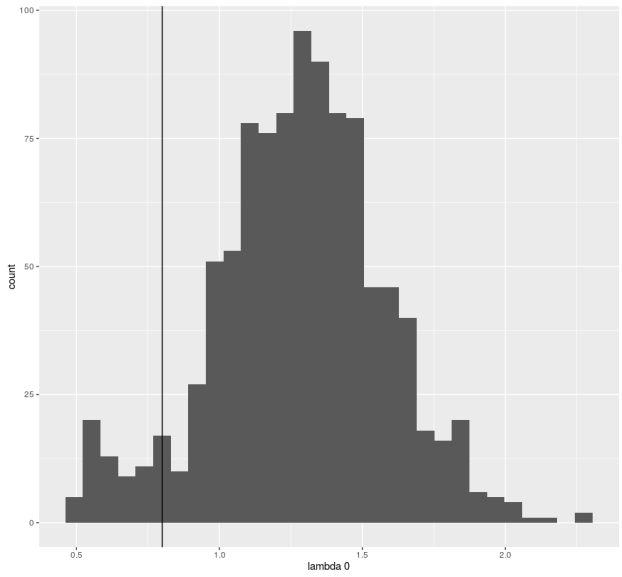
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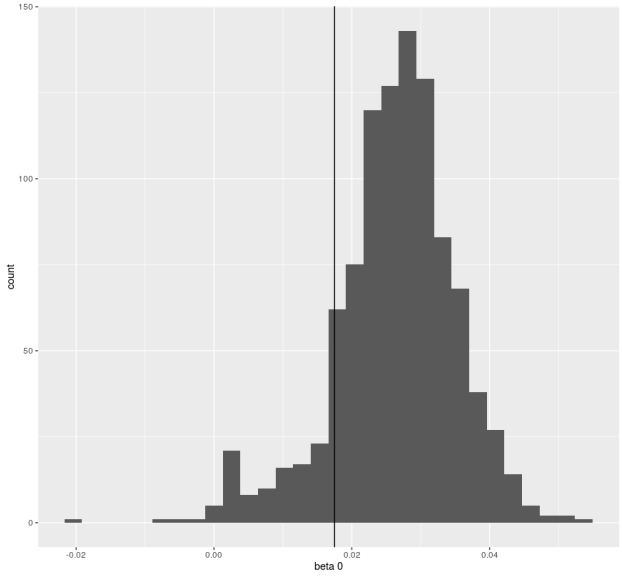
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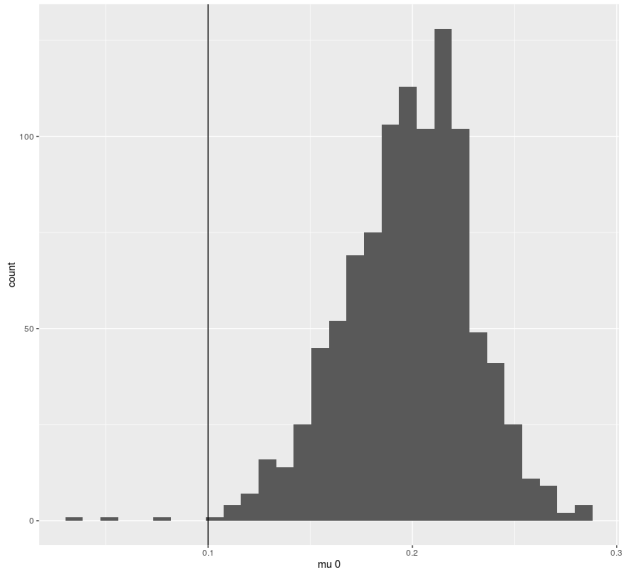
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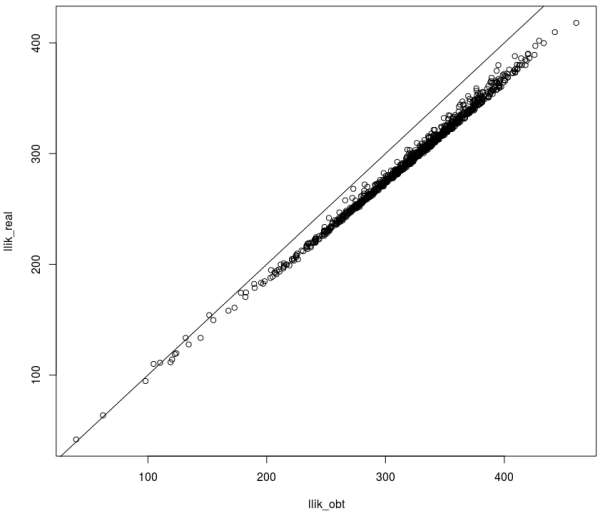
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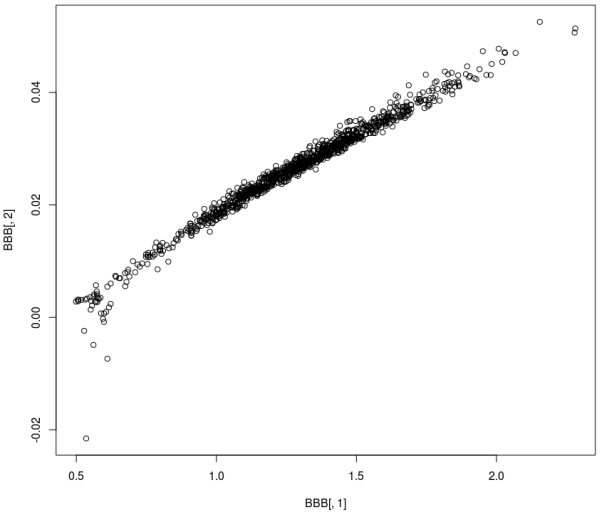
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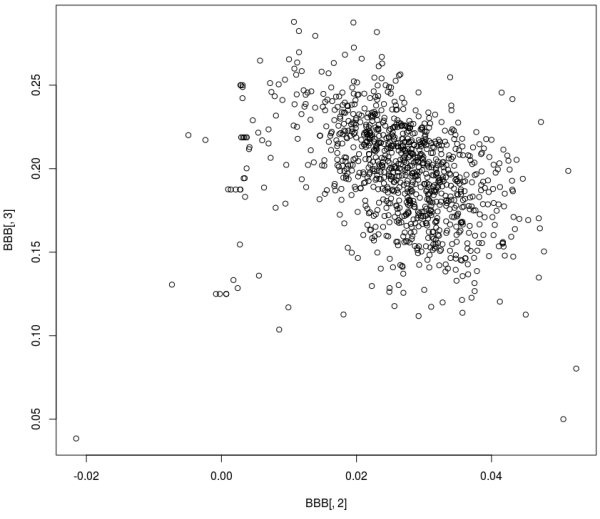
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