Model report

Wednesday 20th December, 2017 14:47

1 Description of the fitted model

Trait	yield
Experimental design features	row (R) + col (R)
Spatial model	2 dimensional P-splines
Genotype	random

2 Summary of the results

Table 1: Size of the data set and eight number descriptives

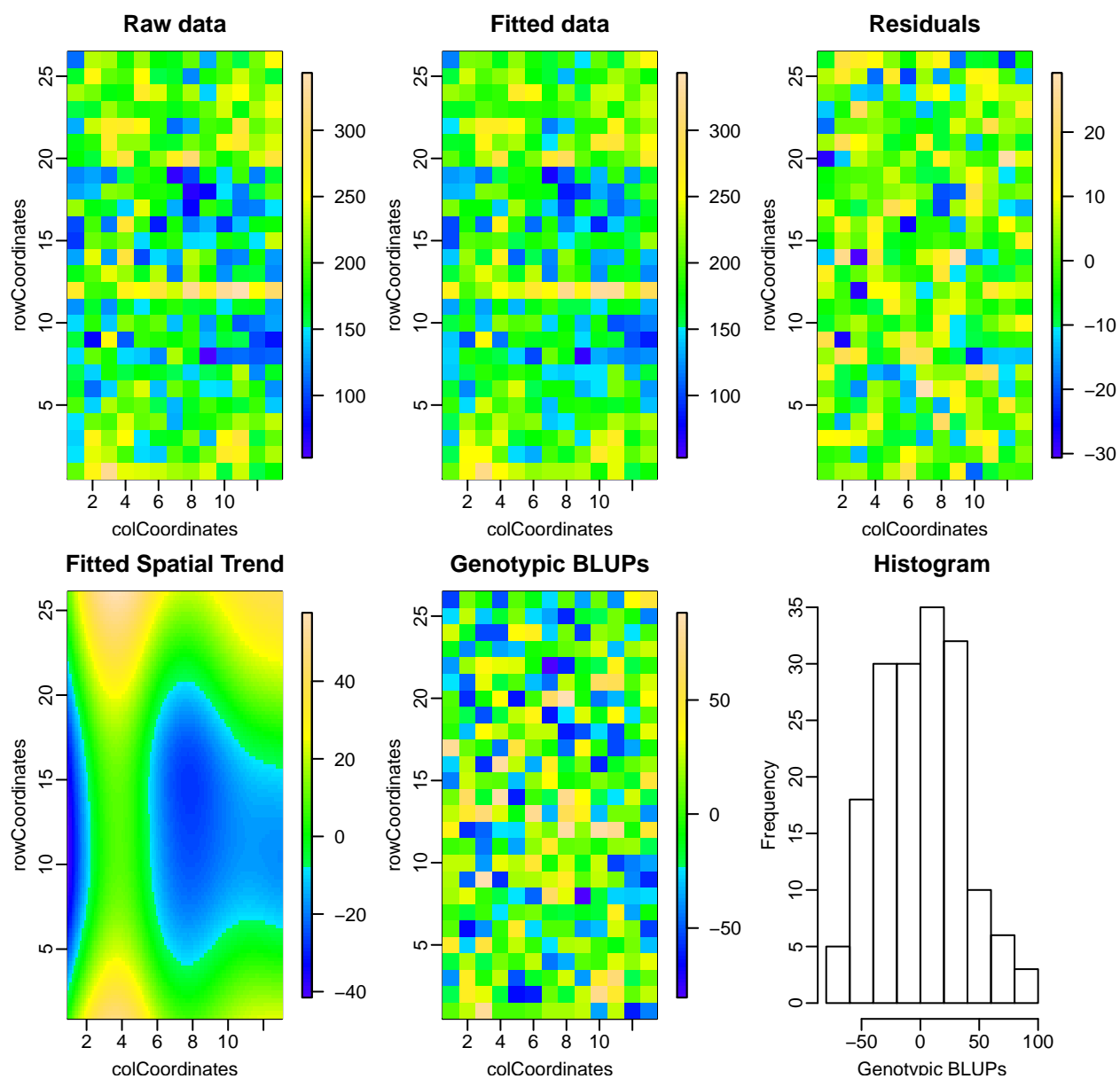|	
Number of observations	338.00
Number of missing values	0.00
Mean	184.16
Median	179.81
Min	54.58
Max	341.77
Lower quartile	148.56
Upper quartile	220.50
Variance	2569.23

Table 2: Effective dimensions

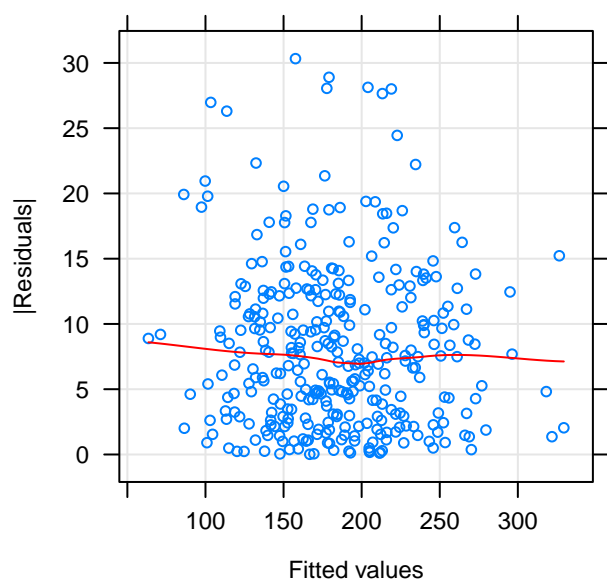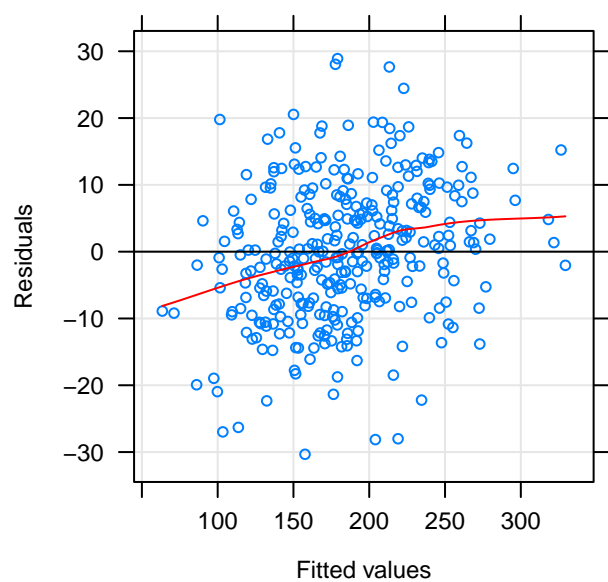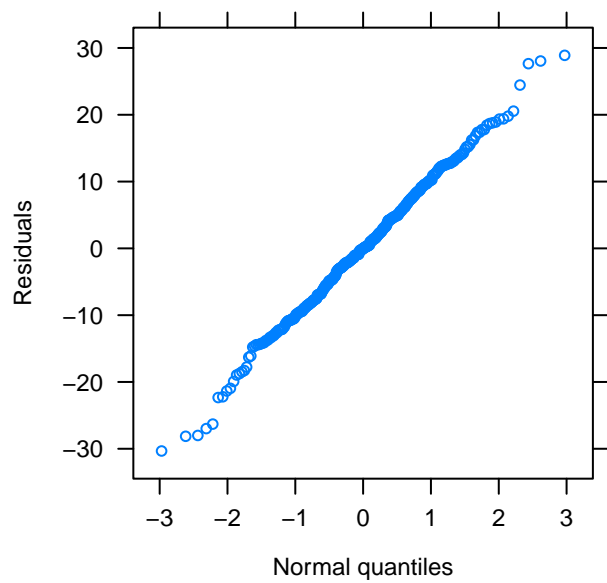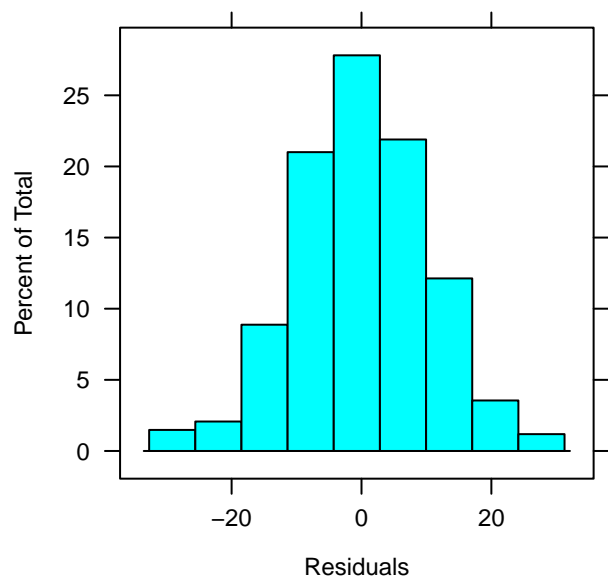|	Effective	Model	Nominal	Ratio	Type
Intercept	1.0	1	1	1.00	F
Genotype	150.3	169	168	0.89	R
rowId	20.8	26	25	0.83	R
colId	2.5	13	12	0.21	R
Lineair trend along cols	1.0	1	1	1.00	S
Lineair trend along rows	1.0	1	1	1.00	S
Lineair trend along rows and cols	1.0	1	1	1.00	S
Smooth trend along cols	4.1	8	8	0.51	S
Smooth trend along rows	1.7	14	14	0.12	S
Lineair trend in rows changing smoothly along cols	0.0	8	8	0.00	S
Lineair trend in cols changing smoothly along rows	0.0	14	14	0.00	S
Smooth-by-smooth interaction trend over rows and cols	3.9	28	28	0.14	S
Total	187.3	284	281	0.67	
Residual	150.7				
Nobs	338				

The generalized heritability is 0.89

Table 3: Variance components

	Variance
Genotype	1.364e+03
rowId	6.129e+02
colId	1.767e+01
Smooth trend along cols	1.786e+04
Smooth trend along rows	4.071e+02
Lineair trend in rows changing smoothly along cols	1.583e-01
Lineair trend in cols changing smoothly along rows	2.170e-01
Smooth-by-smooth interaction trend over rows and cols	8.494e+02
Residual	2.325e+02

3 Diagnostic plots

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4 List of best 20 genotypes

	predictedBLUPs	se predictedBLUPs
SB032	269.81	13.70
SB023	265.80	13.38
SB025	265.14	13.43
SB011	260.58	13.25
SB022	259.19	13.78
SB144	258.70	13.45
SB156	250.68	13.98
SB031	246.43	14.09
SB055	244.78	13.52
SB054	240.70	13.82
SB194	233.99	13.34
SB128	233.18	14.20
SB020	230.47	13.07
SB143	228.80	13.95
SB183	228.01	13.70
SB155	227.75	13.42
SB140	225.93	14.00
SB163	225.55	13.68
SB093	224.04	13.87
SB071	222.29	13.79