Comparison of alternative kriging models

	Matern 5/2	Matern 3/2	Gaussian	exponent.	power exp.
Q2 constant trend	0.000000e+00	0.000000e+00	0.000000e+00	0.000000e+00	0.000000e+00
Q2 1st order poly. trend	0.000000e+00	0.000000e+00	0.000000e+00	0.000000e+00	0.000000e+00
RMSE constant trend	1.993769e+18	1.995148e+18	1.995348e+18	1.993685e+18	1.993918e+18
RMSE 1st order poly. trend	1.989744e+18	1.988095e+18	1.995368e+18	1.989241e+18	1.987594e+18
MAE constant trend	6.352724e+17	6.335559e+17	6.310508e+17	6.354858e+17	6.348919e+17
MAE 1st order poly. trend	6.348445e+17	6.353751e+17	6.310319e+17	6.350814e+17	6.349246e+17
RMA constant trend	3.159600e+00	3.161800e+00	3.162100e+00	3.159500e+00	3.159800e+00
RMA 1st order poly. trend	3.153200e+00	3.150600e+00	3.162200e+00	3.152400e+00	3.149800e+00

Q2: cross validation Q2 (higher is better)
RMSE/MAE/RMA: external validation RMSE/MAE/RMA (lower is better)

Kriging meta−model estimation (standardized)

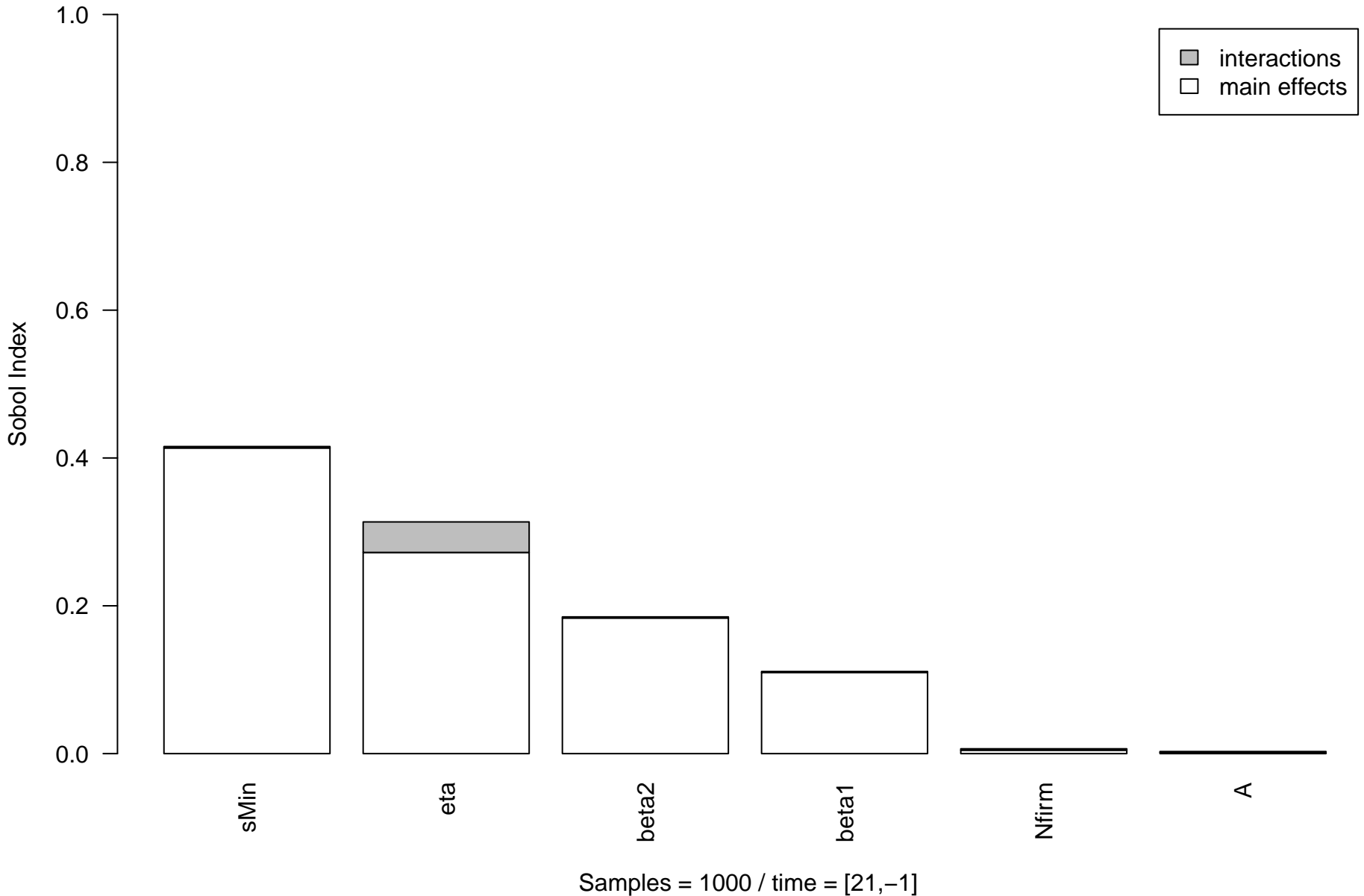|			
trend(intercept)	−2.254372e+16	Trend specification	1st order poly.
trend(inclination)	2.668014e+16	Correlation function	power exp.
theta(eta)	1.125000e+00	Cross−sample Q2	0.000000e+00
theta(beta1)	0.000000e+00	External RMSE	1.987594e+18
theta(beta2)	1.687000e+00	External MAE	6.349246e+17
theta(A)	1.604000e+00	External RMA	3.150000e+00
theta(sMin)	7.050000e−01	DoE samples	33
theta(Nfirm)	1.967000e+00	External samples	10

Variables rescaled to [0,1] / Average 95% CI = +/− 45407150261956832
Predicted output at defaults: aAvg = −566305651459268, 95% CI = [−4061444325 8287424,39481831955368880], time = [21,−1]
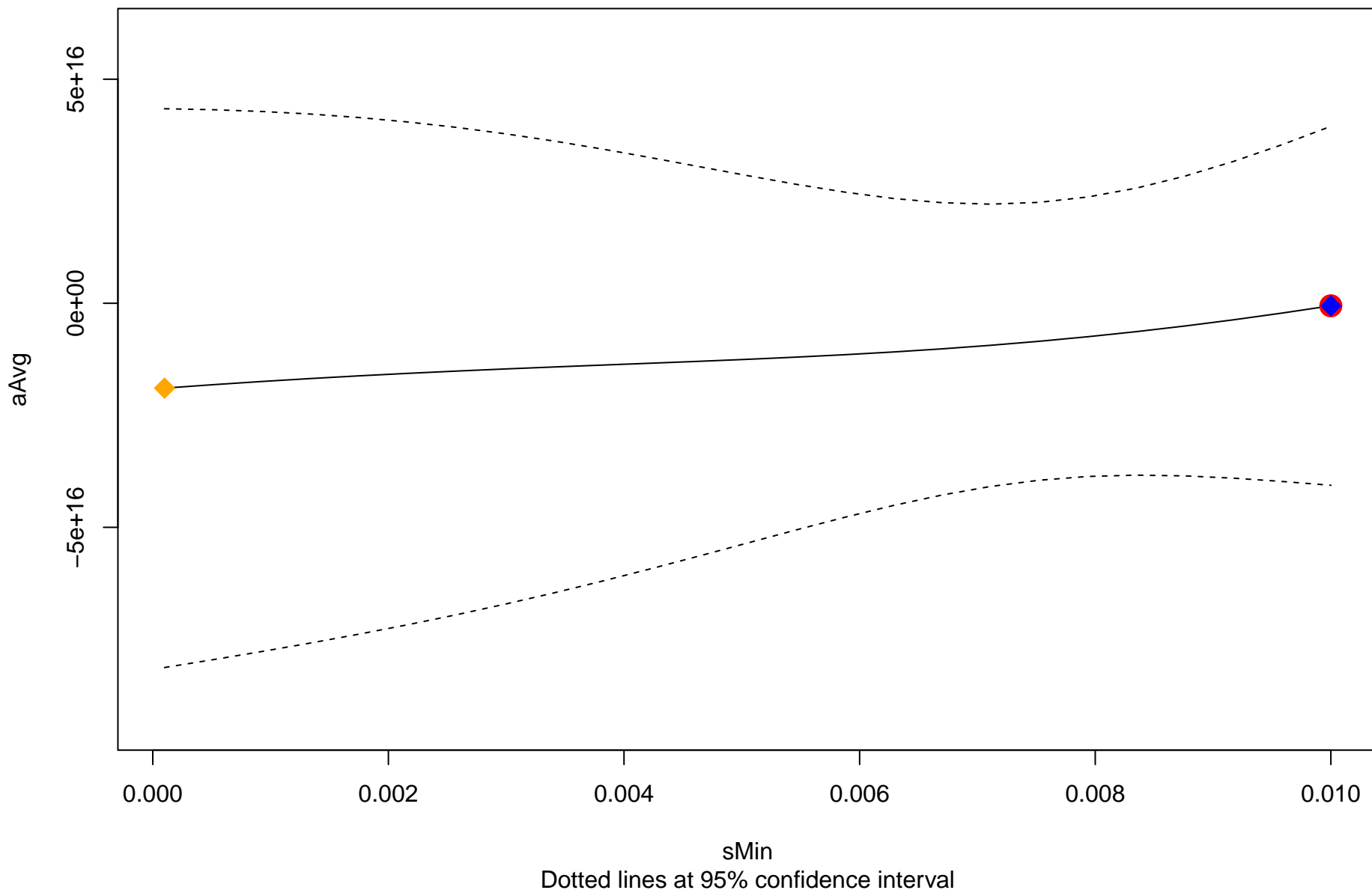
Sobol decomposition indexes (aAvg)

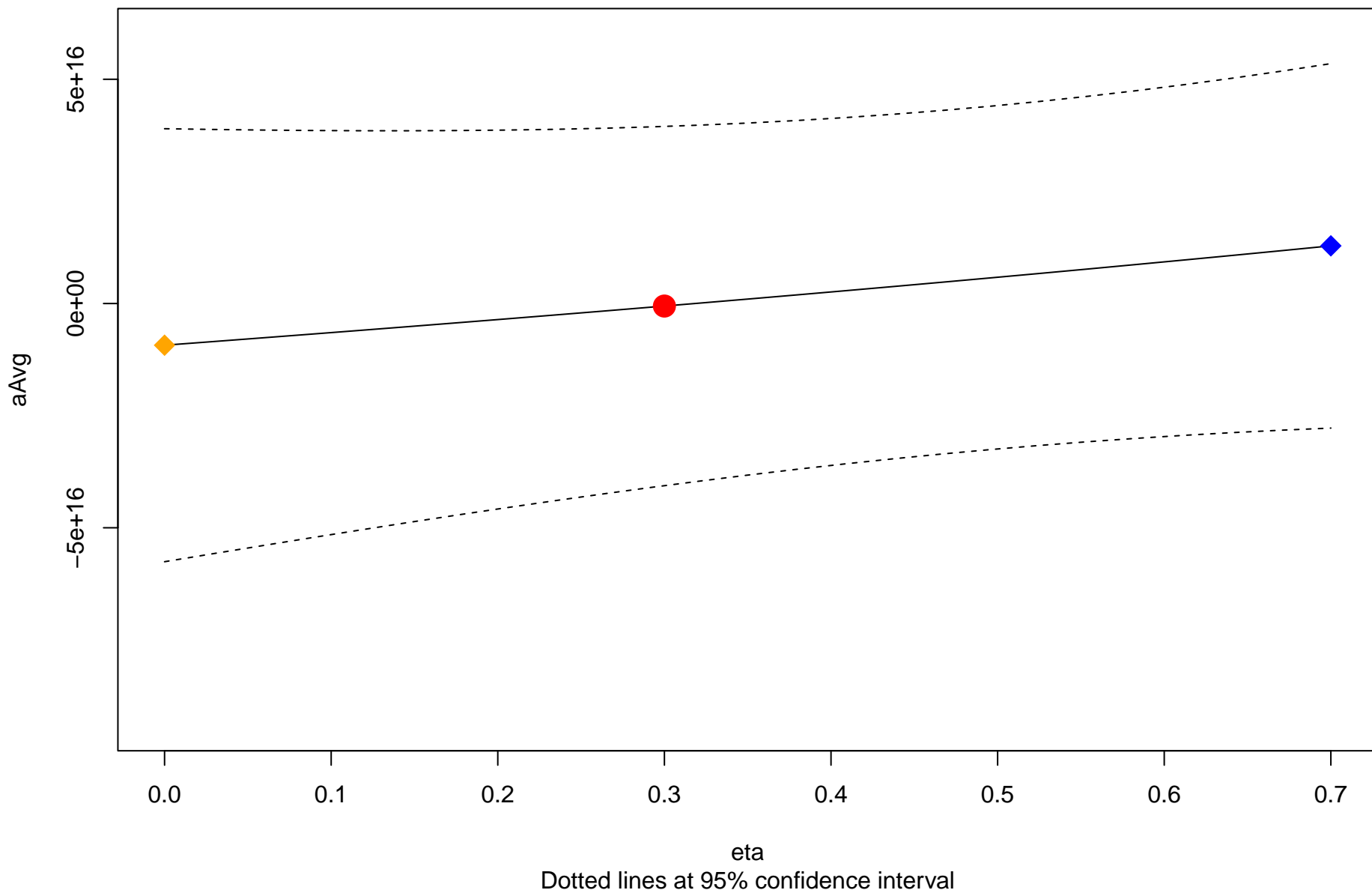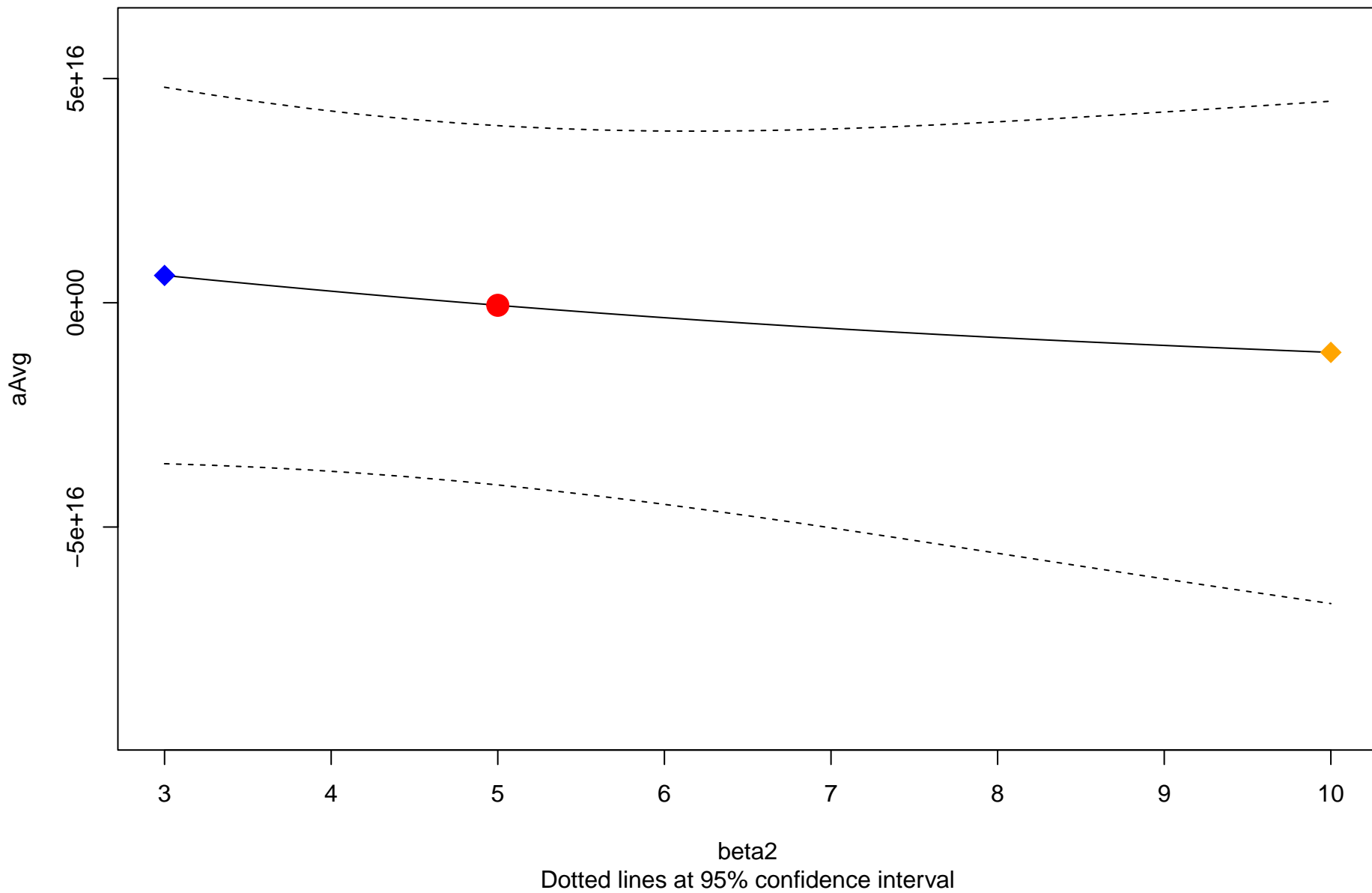|	Direct effects	Interactions
sMin	0.414	0.002
eta	0.272	0.041
beta2	0.183	0.001
beta1	0.110	0.001
Nfirm	0.005	0.002
A	0.002	0.001

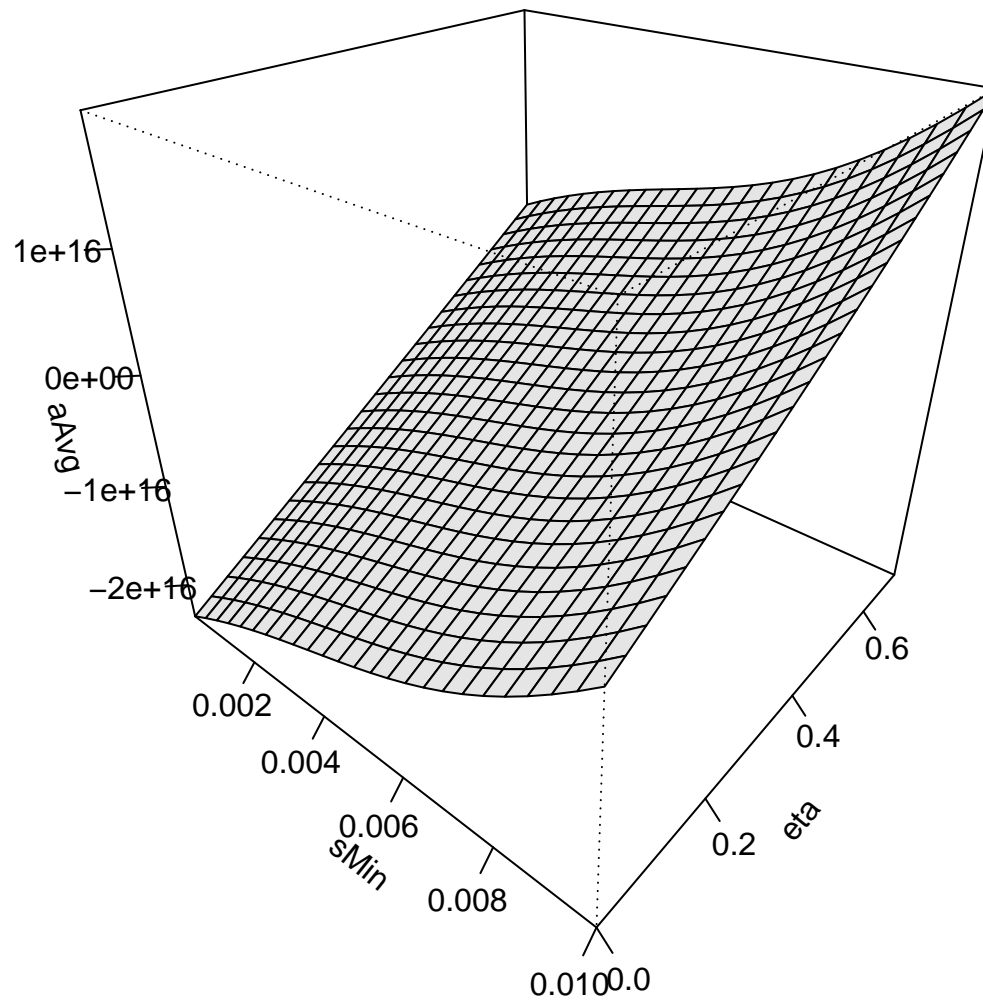Samples = 1000 / time = [21,–1]

Sobol decomposition indexes (aAvg)

Samples = 1000 / time = [21,−1]

Meta−model response for parameter 'sMin'

sMin

Dotted lines at 95% confidence interval

Meta−model response for parameter 'eta'

eta
Dotted lines at 95% confidence interval

Meta−model response for parameter 'beta2'

beta2

Dotted lines at 95% confidence interval

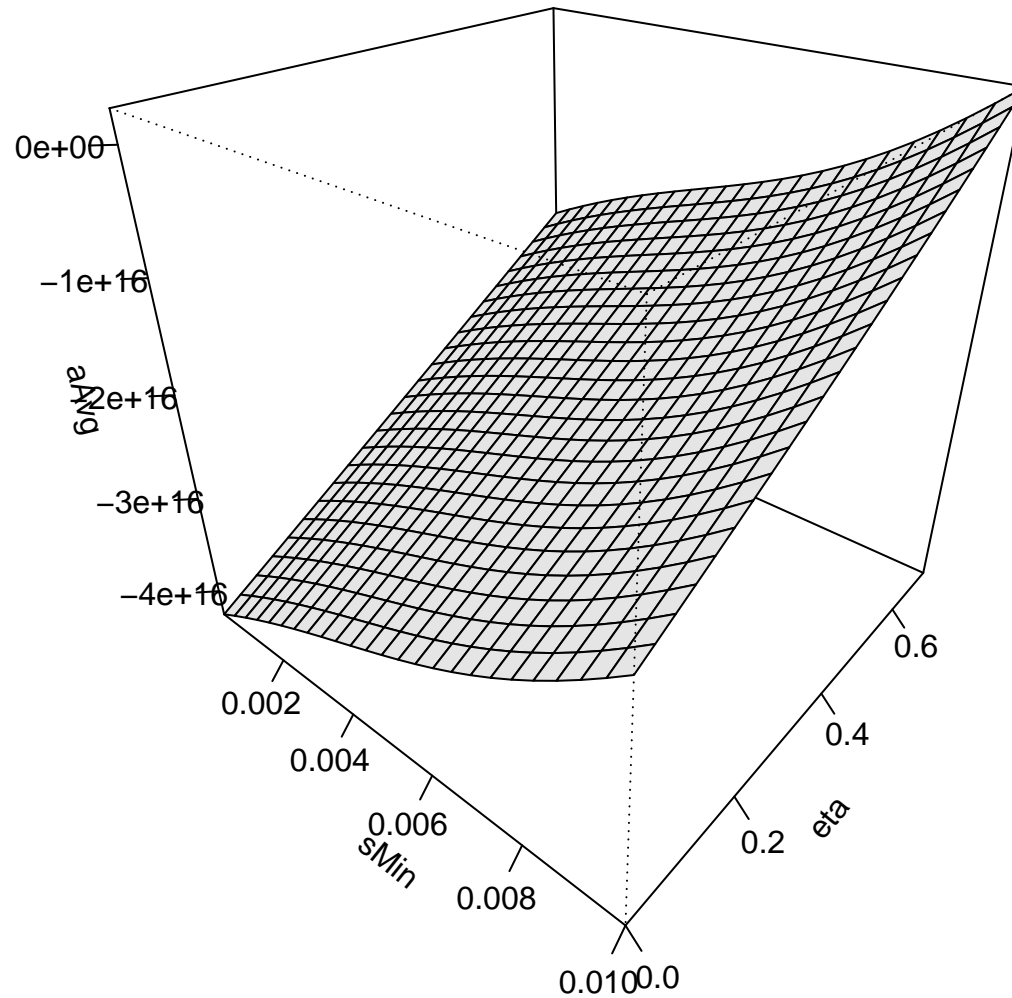**Meta−model response surface (beta2 = 3)**

All other parameters are at default settings
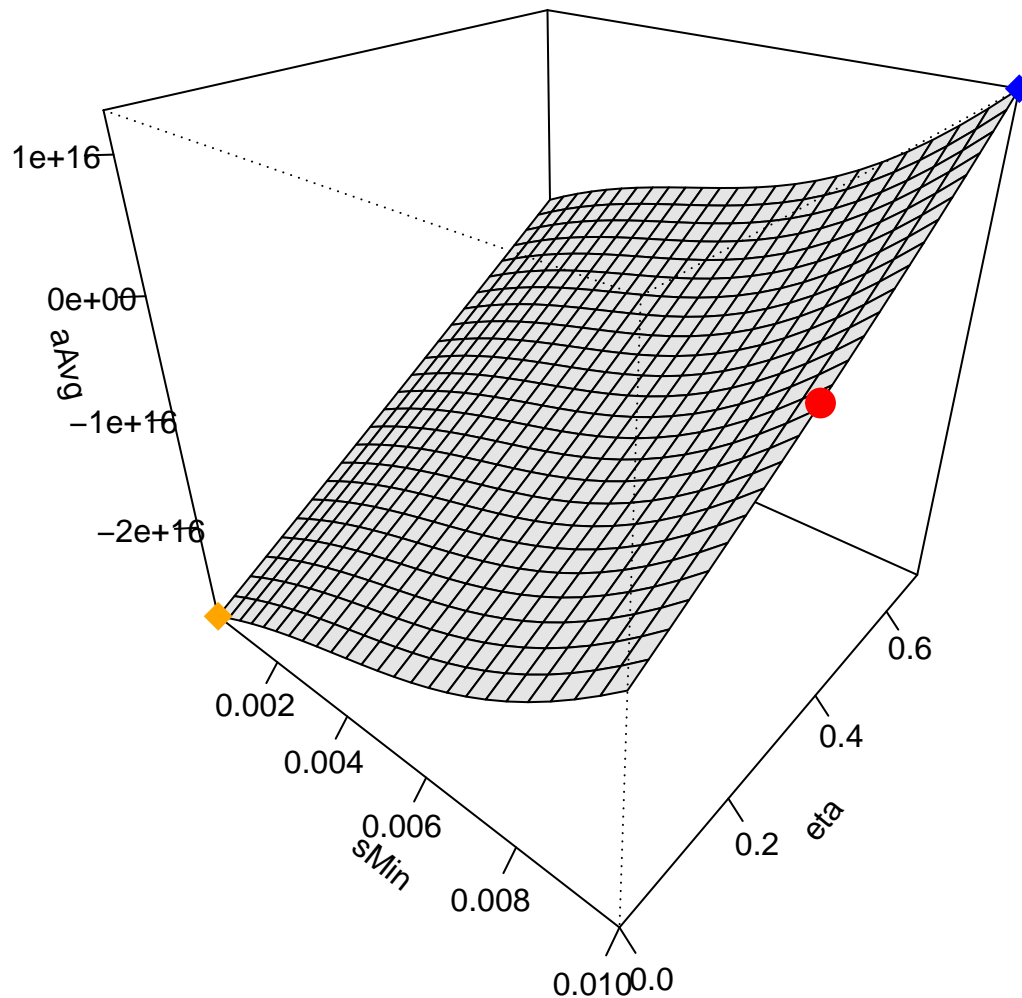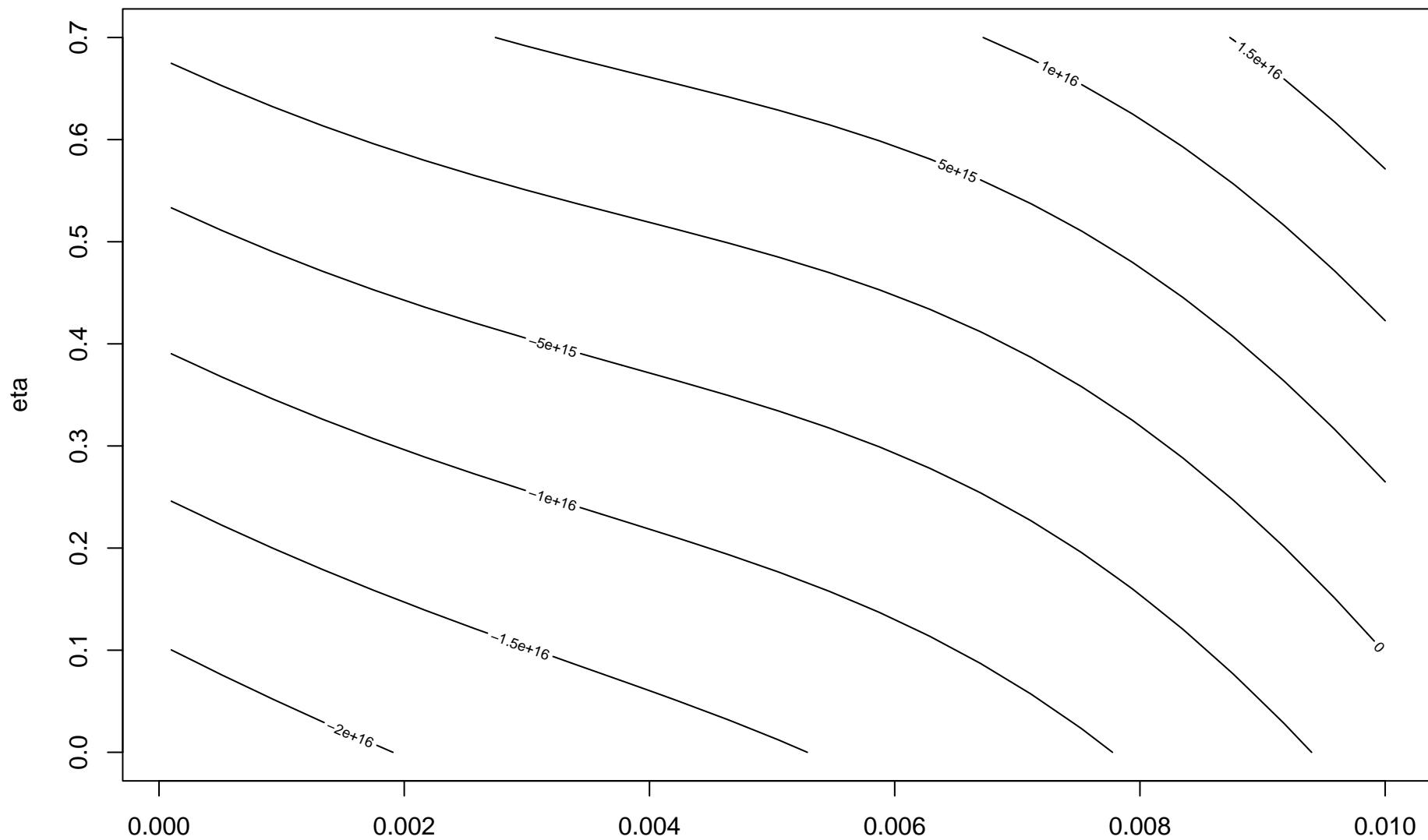
Meta−model response surface (beta2 = 5)

95% confidence interval: aAvg = [−40614443258287424,39481831955368880] at defaults (red dot)

Meta−model response surface (beta2 = 10)

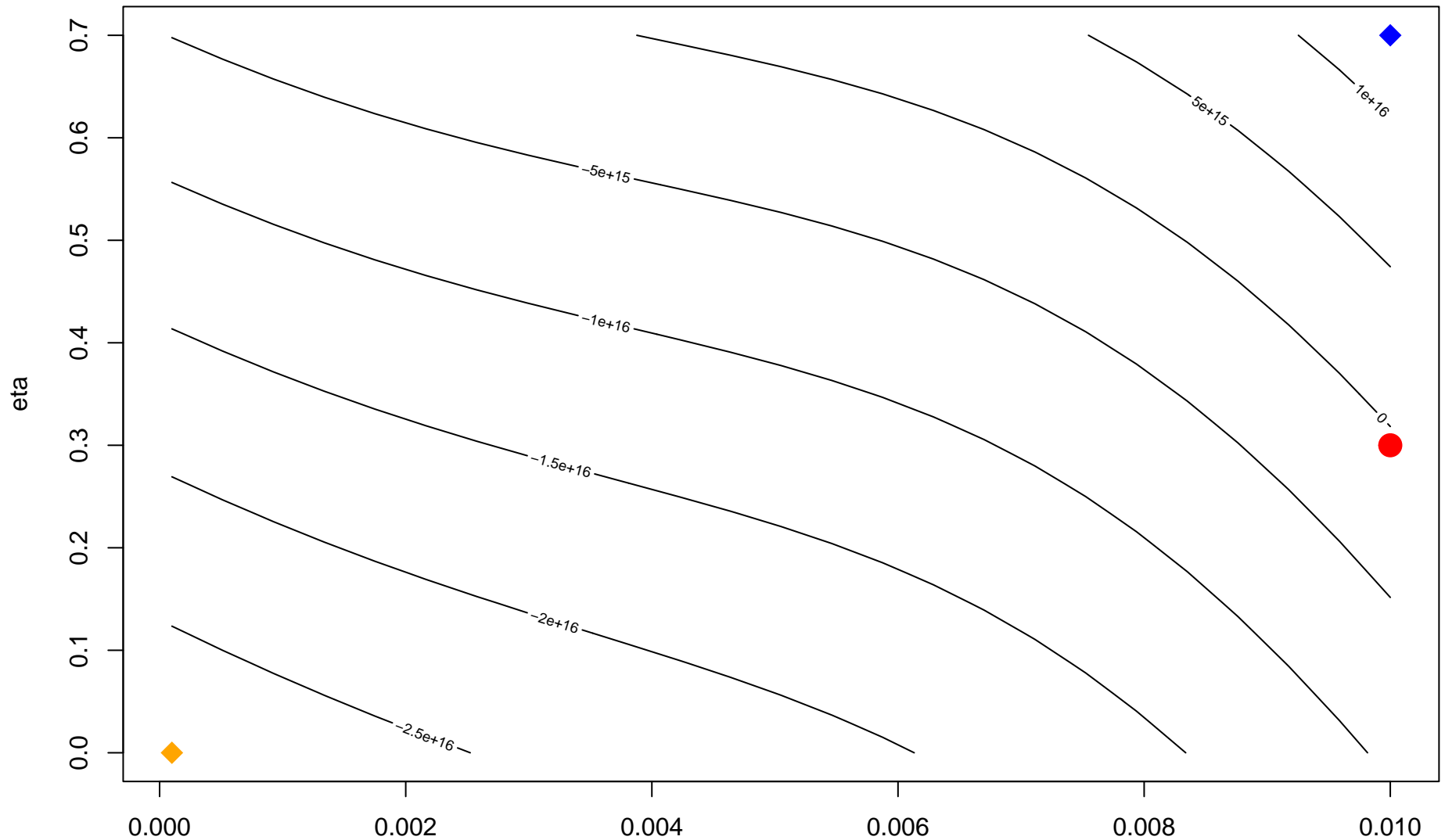All other parameters are at default settings

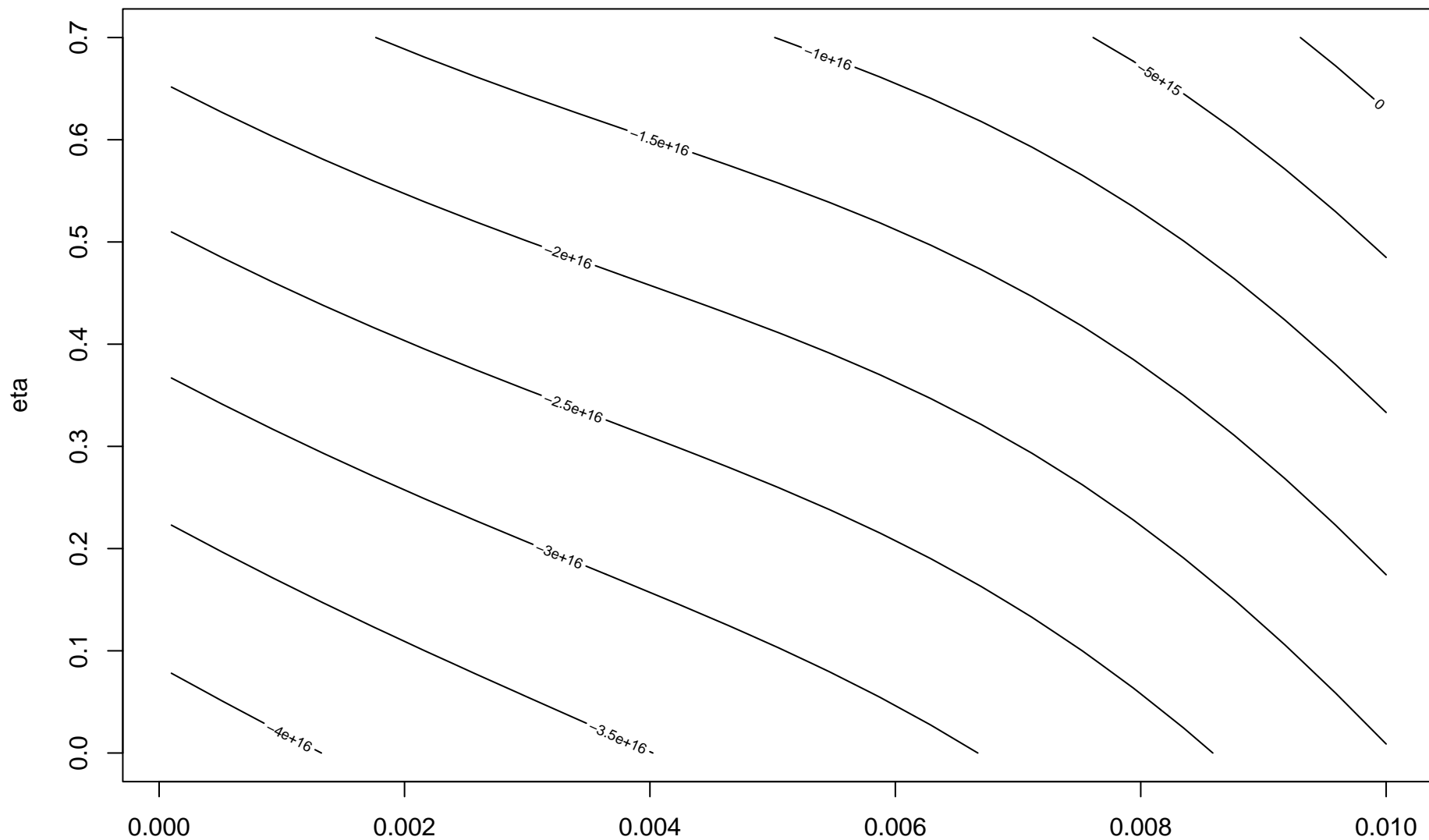**Meta−model response surface (beta2 = 3)**

sMin

All other parameters are at default settings

Meta−model response surface (beta2 = 5)

95% confidence interval: aAvg = [−40614443258287424,39481831955368880] at defaults (red dot)

Meta−model response surface (beta2 = 10)

sMin

All other parameters are at default settings