TCGA Sub−Sampled Elastic Net Parameter Optimization
(towards minimum RMSE)

RMS Error (y-axis)

Log Lambda (x-axis)

Alpha values
- 0.000
- 0.001
- 0.002
- 0.006
- 0.013
- 0.032
- 0.075
- 0.178
- 0.422
- 1.000
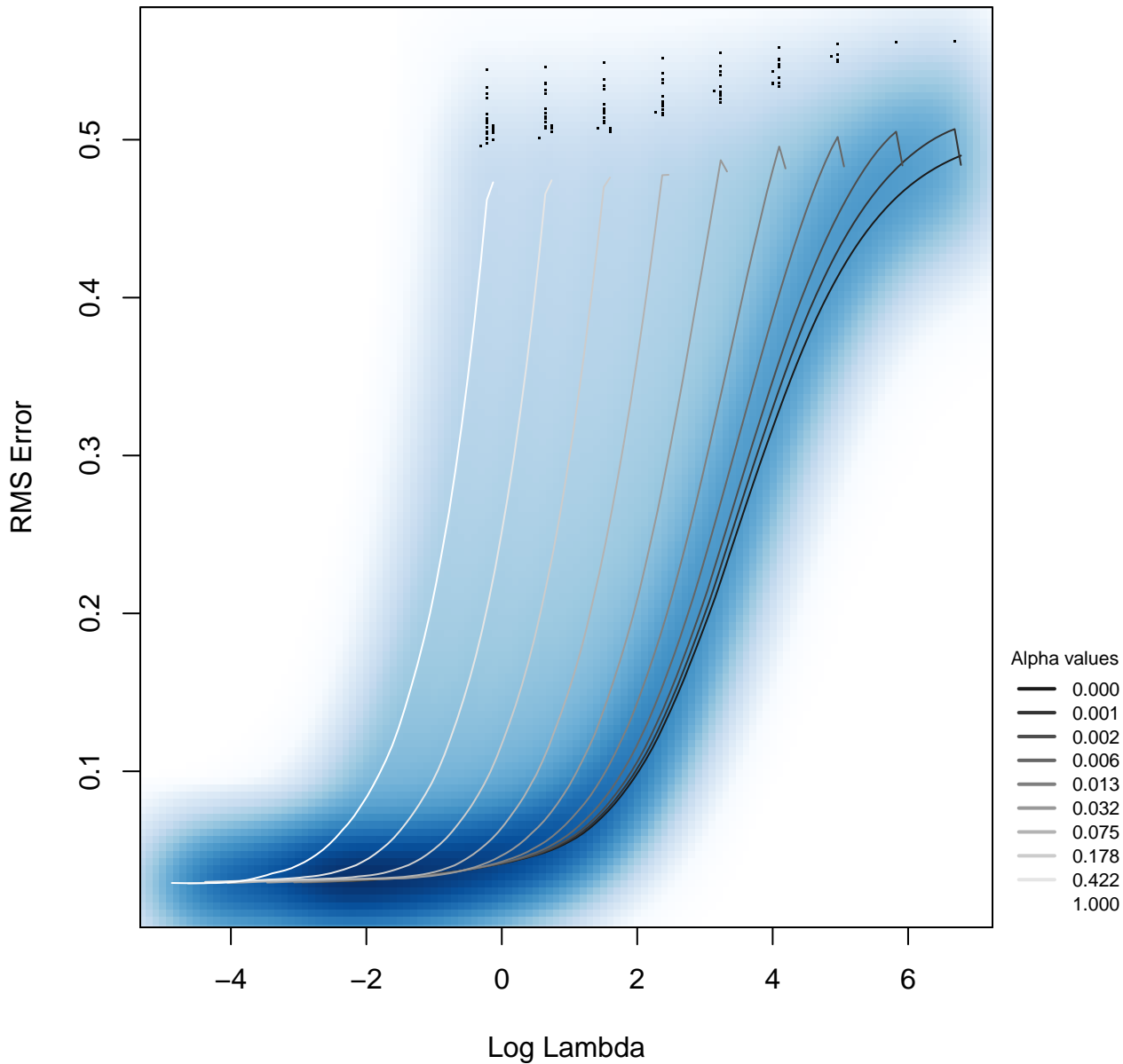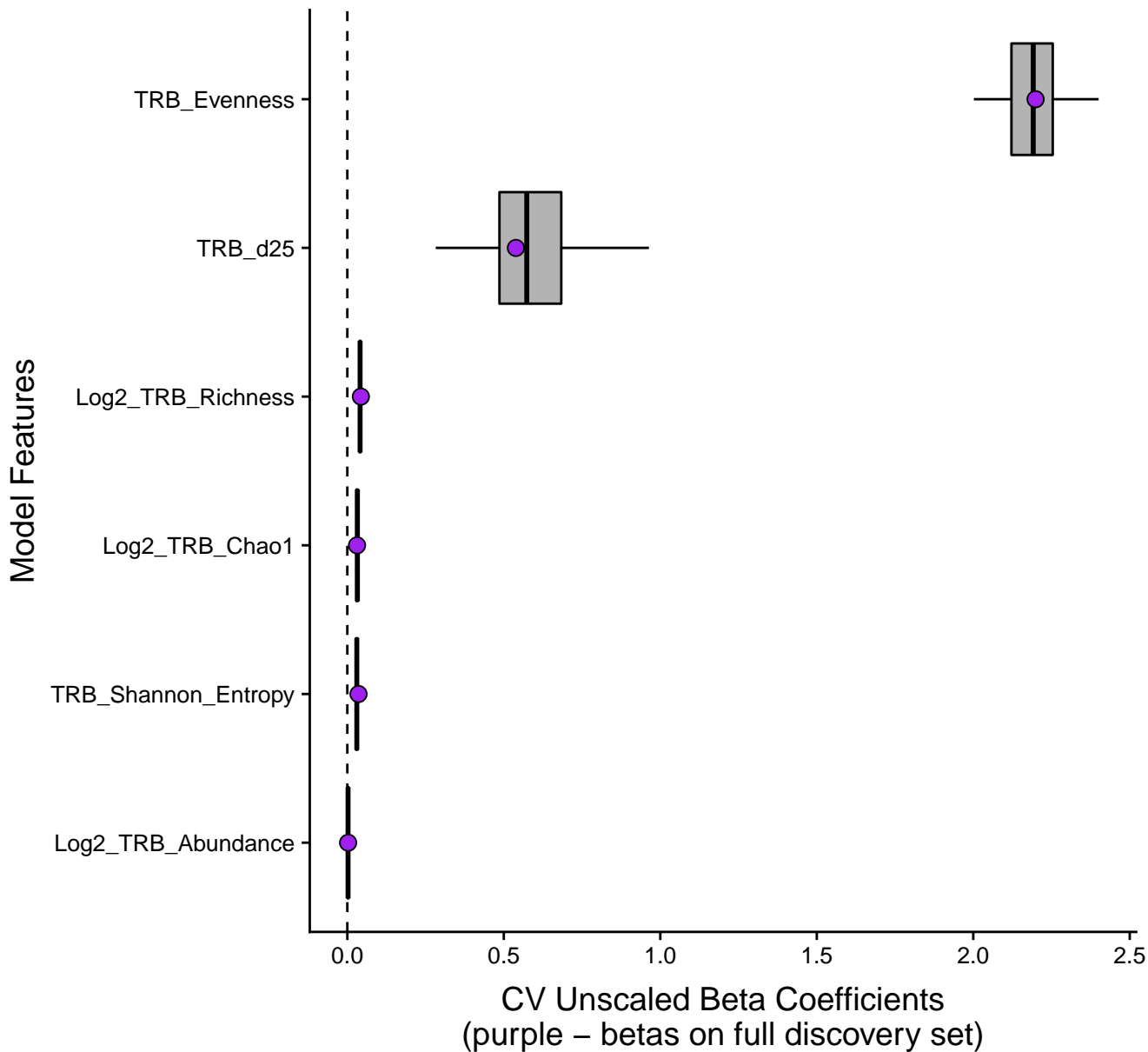
TCGA Sub−Sampled Model Stability Across Parameter Space
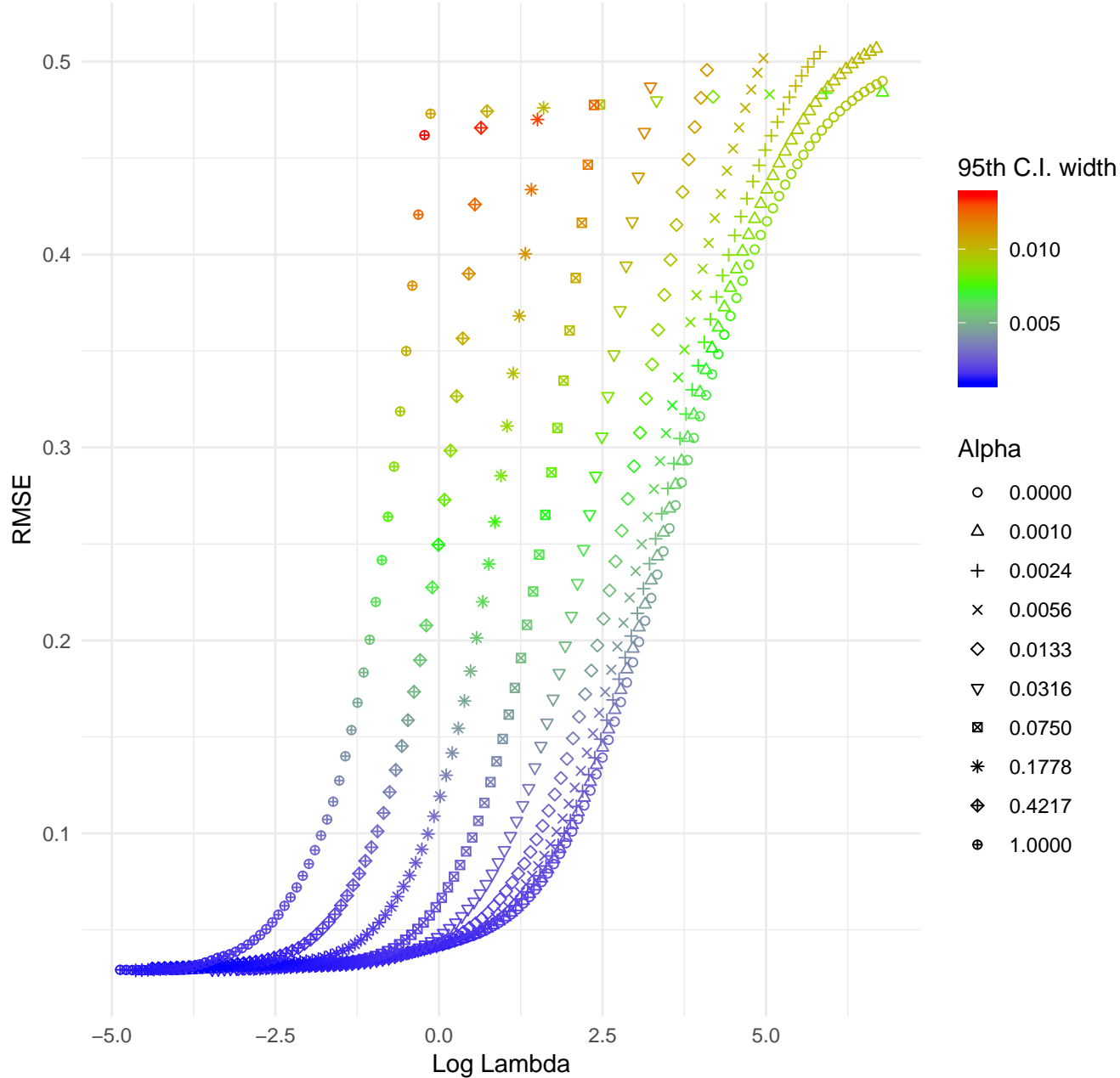
TCGA Sub−Sampled Feature Selection at Optimal Model Parameters
(alpha=0.1778, lambda=0.0097)
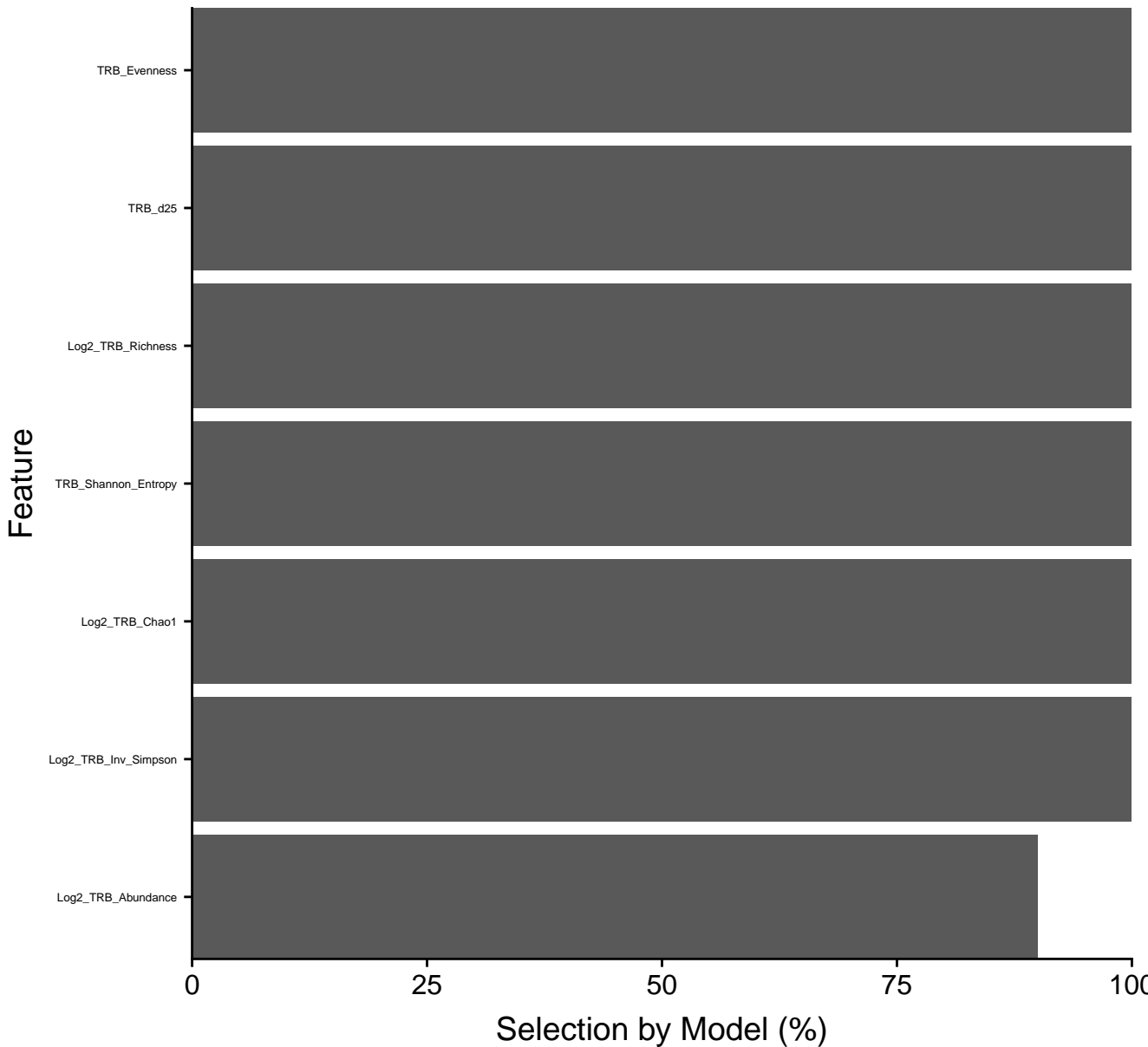
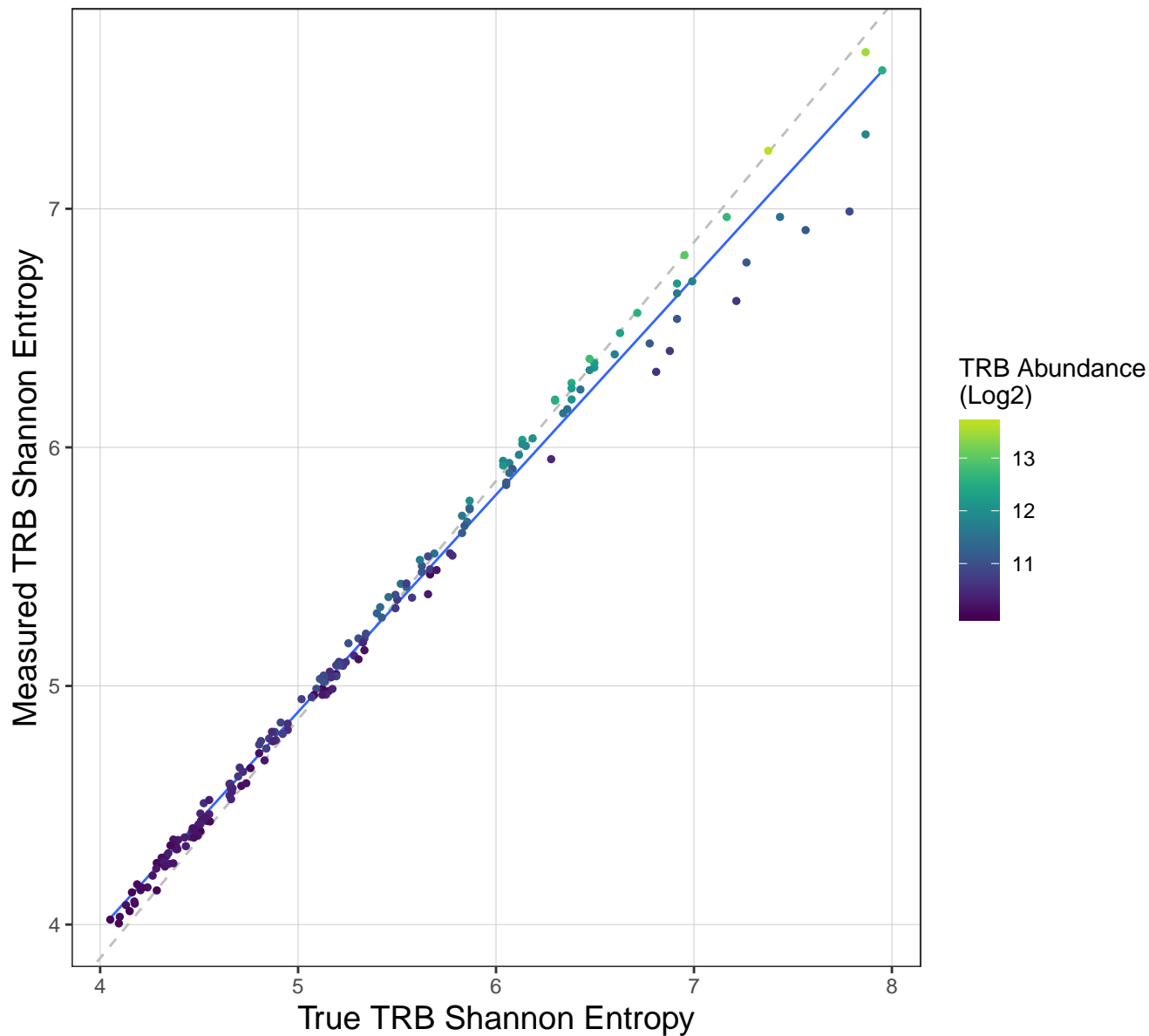**TCGA Sub−Sampled Optimal Beta Coefficients**

(alpha=0.1778, lambda=0.0097)

TCGA Sub−Sampled
Measured Entropy vs True Entropy

(Spearman pValue: < 2.2e−16 Rho: 0.9983; RMSE: 0.1799)

TRB Abundance
(Log2)

TCGA Sub−Sampled Predictions vs True Entropy
(Spearman pValue: < 2.2e−16 Rho: 0.9984; RMSE: 0.0531)

Model Prediction

True TRB Shannon Entropy

TRB Abundance
(Log2)

13

12

11