S4 Statistical analysis

The purpose of this section is to support our findings with rigorous goodness-of-fit analysis. For result in Figure 6, we provide the parametric model that give the best fit of the data with 95% confidence interval:

\[
\log_{10} \# \text{colocations} = a + b \cdot \log_{10} \# \text{calls} + c \cdot \log_{10} \text{distance}
\]

\[
a = -0.0842 \pm 0.0146
\]
\[
b = 0.6042 \pm 0.0021
\]
\[
c = -0.0822 \pm 0.0034
\]

Using standard curve fitting analysis, we evaluated goodness-of-fit statistics calculating the sum of squares due to error (SSE) \(2.6 \times 10^4\), the R-square 0.61, adjusted R-square 0.61 and the root mean squared error (RMSE) 0.37.