**c\_vec <- scan("c\_vec")**

**pi\_vec <- scan("pi\_vec")**

**modelo <- nls(pi\_vec ~ (a \* c\_vec + b) / (c\_vec + c), start = list(a = 0.006, b = 0.002, c = 1))**

**summary (modelo)**

Formula: pi\_vec ~ (a \* c\_vec + b)/(c\_vec + c)

Parameters:

Estimate Std. Error t value Pr(>|t|)

a **0.00566758** 0.00015144 37.426 < 2e-16 \*\*\*

b **0.00040729** 0.00009757 4.174 3.26e-05 \*\*\*

c **0.35347355** 0.05319452 6.645 5.07e-11 \*\*\*

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.001406 on 962 degrees of freedom

Number of iterations to convergence: 3

Achieved convergence tolerance: 0.000004259

**SIMULATION**

Formula: pi\_vec ~ (a \* c\_vec + b)/(c\_vec + c)

Parameters:

Estimate Std. Error t value Pr(>|t|)

a 0.0056896 0.0009016 6.311 0.00000000144 \*\*\*

b 0.0024882 0.0019375 1.284 0.200

c 1.1948082 0.8046375 1.485 0.139

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.001812 on 227 degrees of freedom

Number of iterations to convergence: 3

Achieved convergence tolerance: 0.000004304