A: Datasheet

Algorithm: smilart_5

Developer: Smilart

Submission Date: 2018_10_30

Template size: 2048 bytes

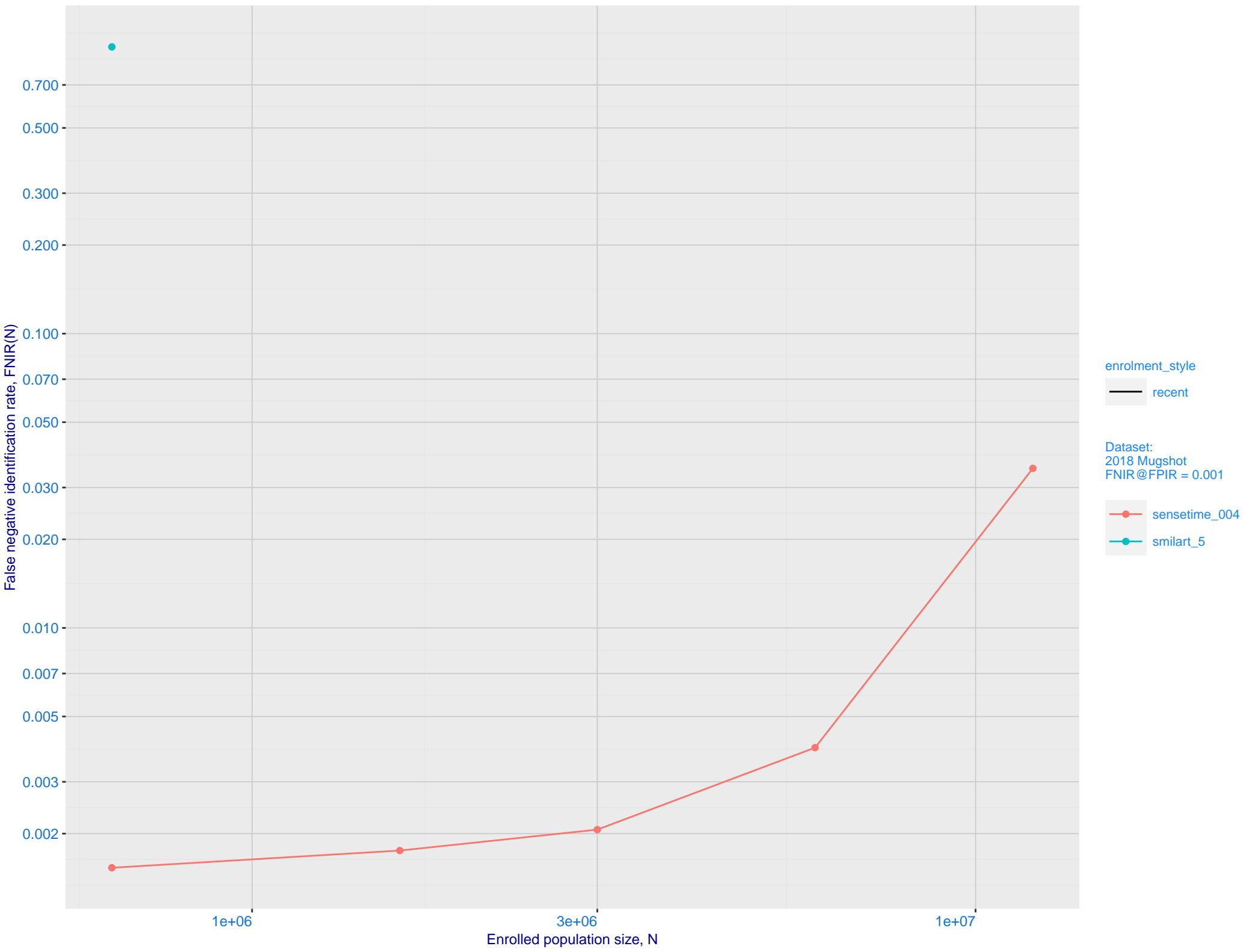Template time (2.5 percentile): 430 msec

Template time (median): 451 msec
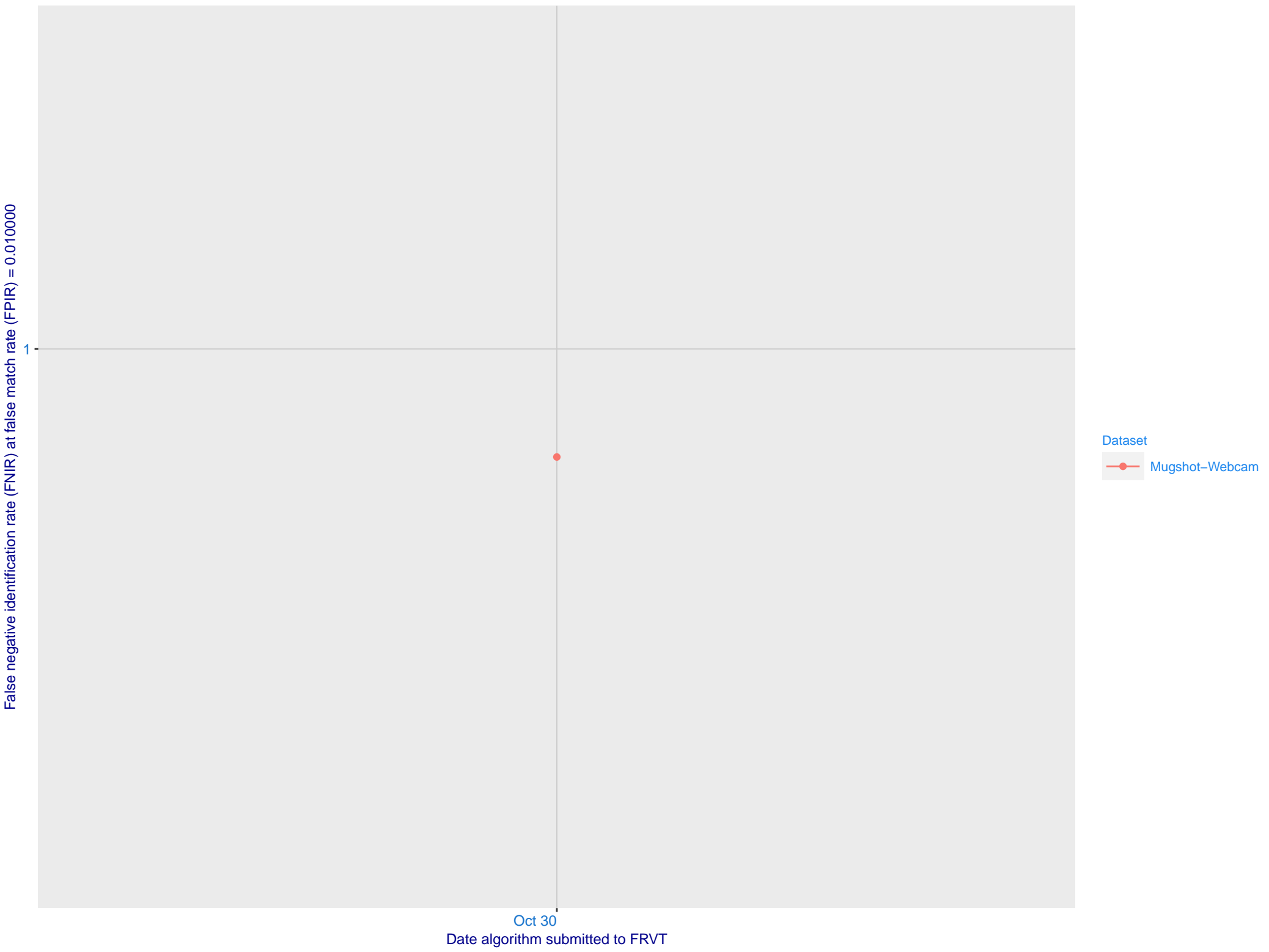
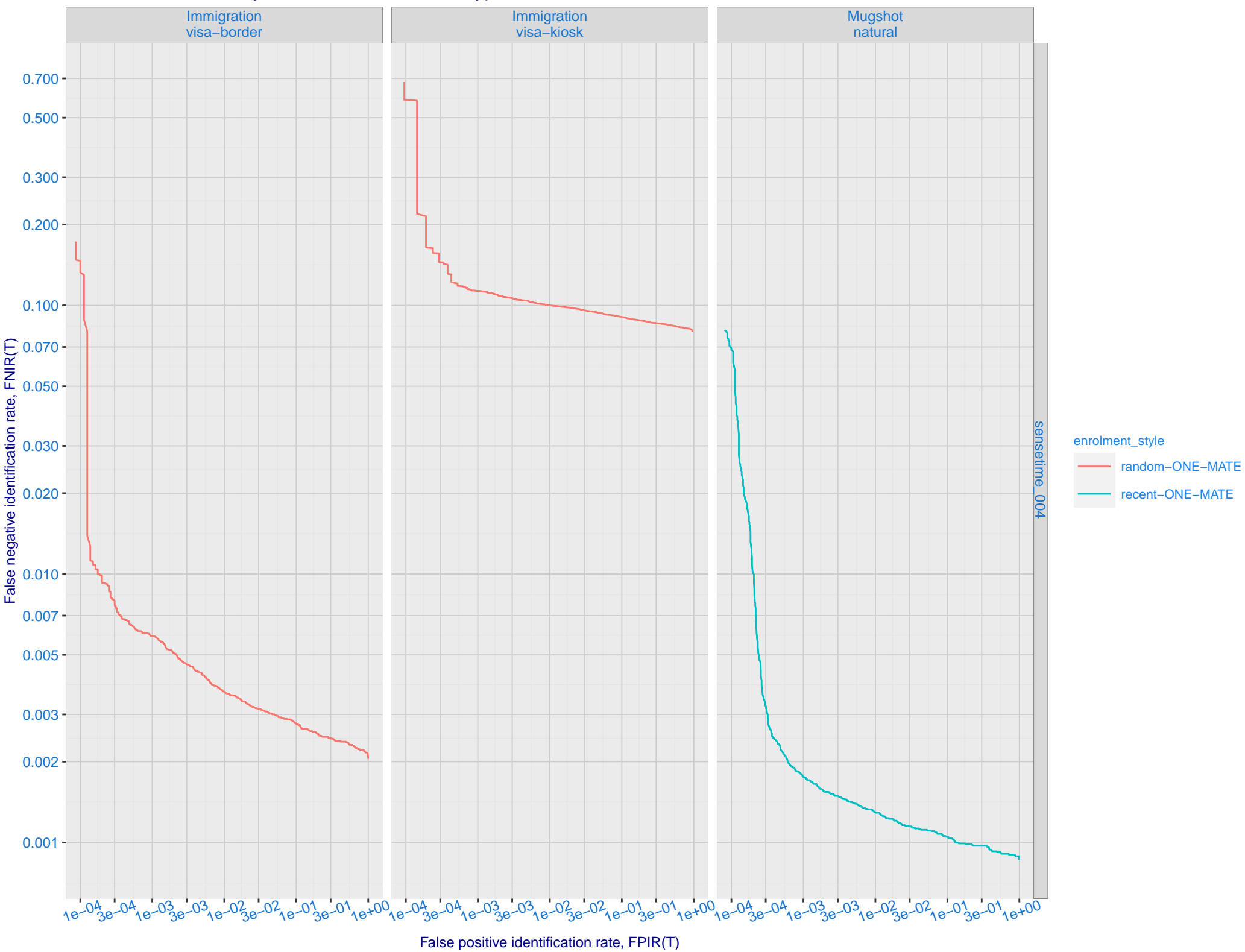Template time (97.5 percentile): 711 msec

Investigation:

Identification:

B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
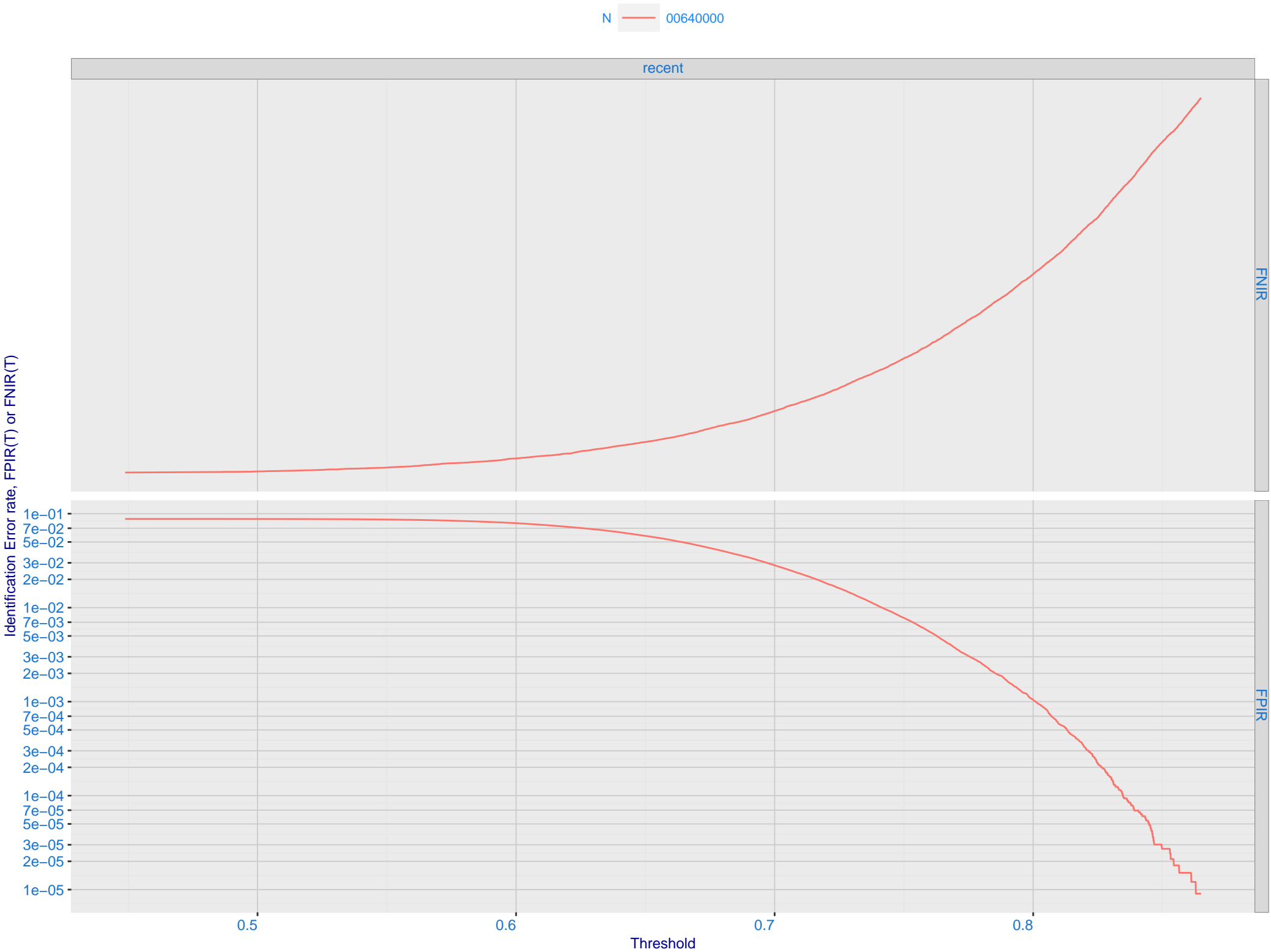
C: Evolution of accuracy for SMILART algorithms on three datasets 2018 – present

False negative identification rate (FNIR) at false match rate (FPIR) = 0.010000

Date algorithm submitted to FRVT
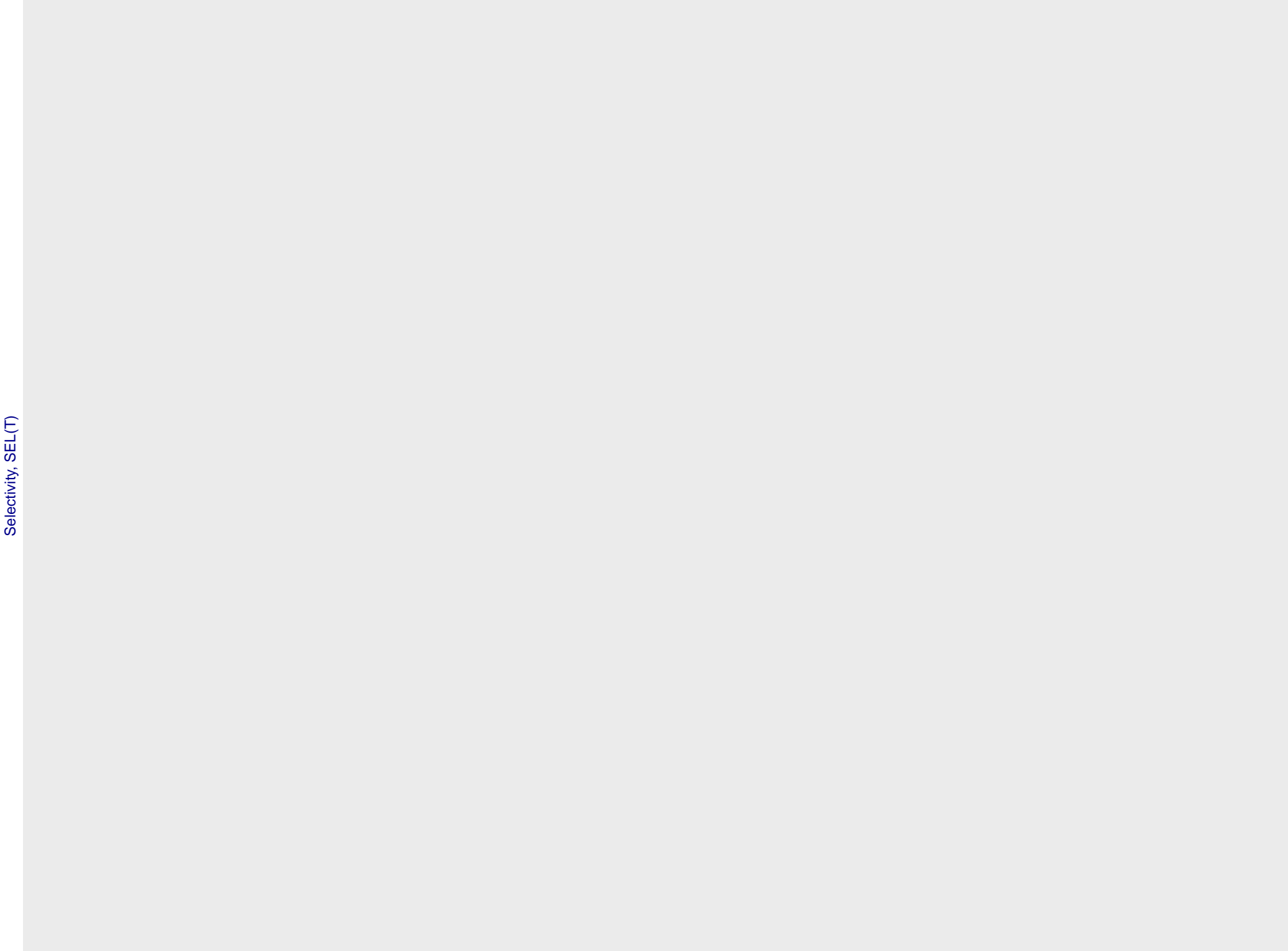
Oct 30

1

Dataset

Mugshot−Webcam

D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

Selectivity, SEL(T)

False Positive Idenification Rate, FPIR(T)
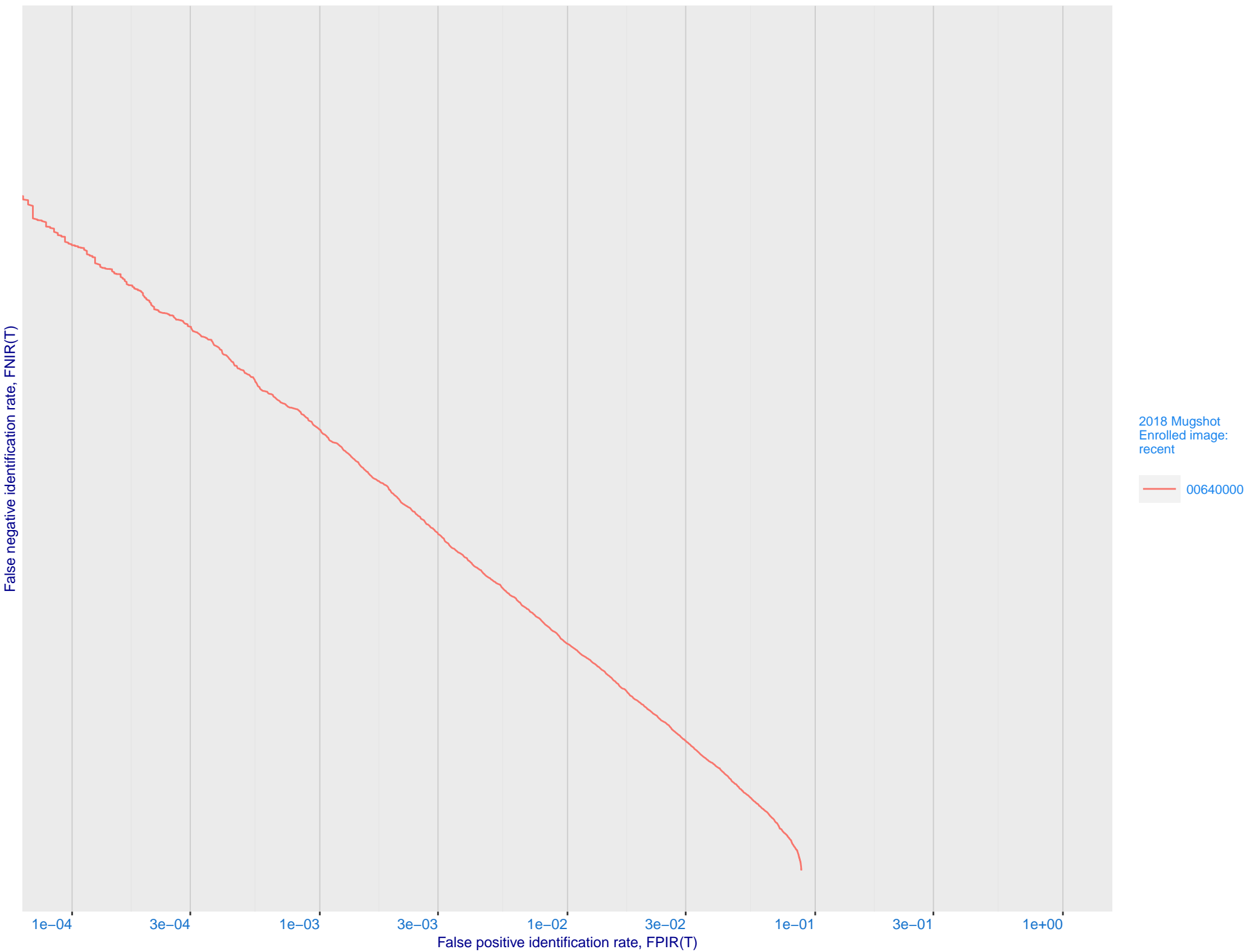
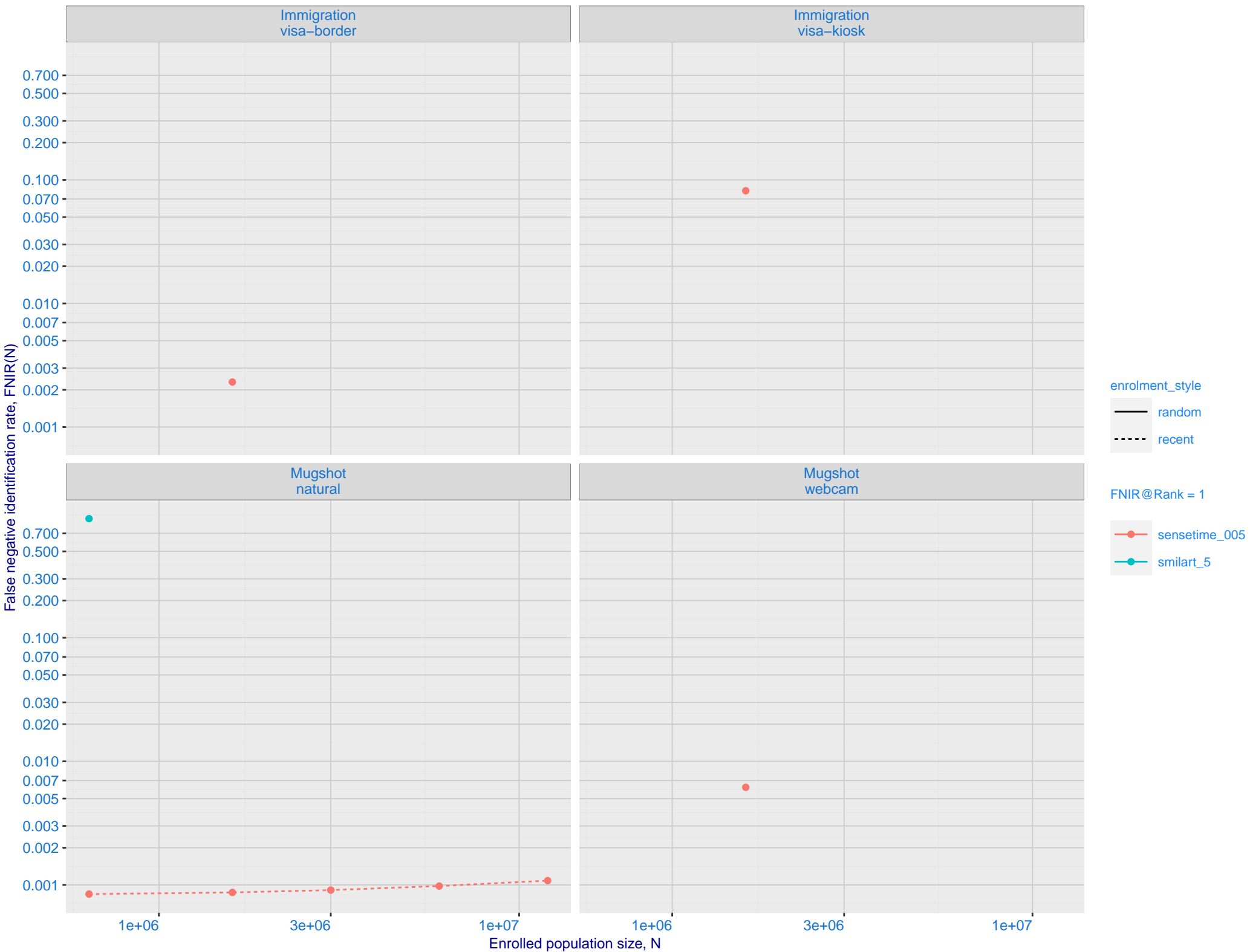G: FPIR dependence on T by probe type for N = 1600000 subjects

False Positive Idenification Rate, FPIR(T)

Threshold

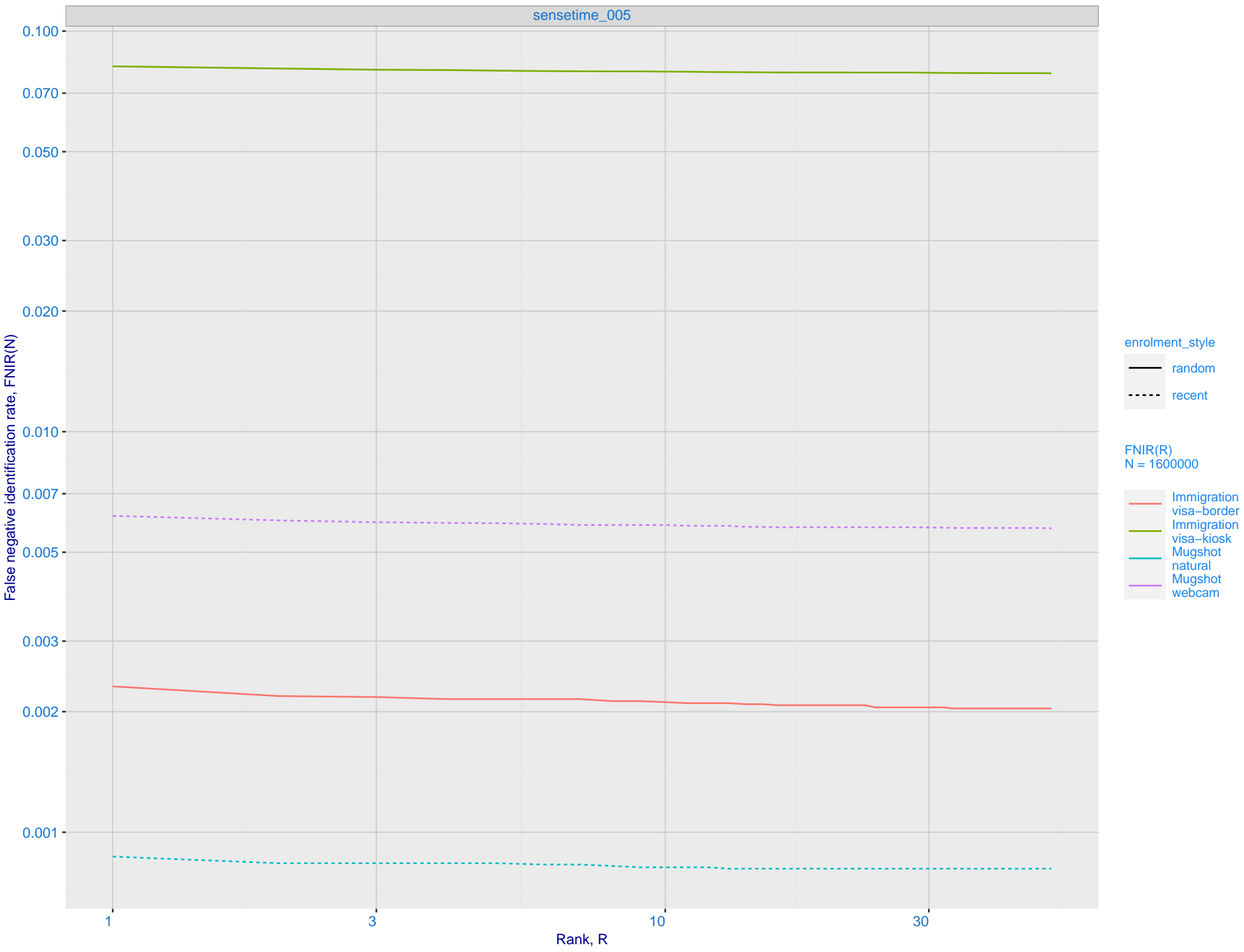J: DET for Mugshot natural images and various N. Links connect points of equal threshold.

False negative identification rate, FNIR(T)

False positive identification rate, FPIR(T)
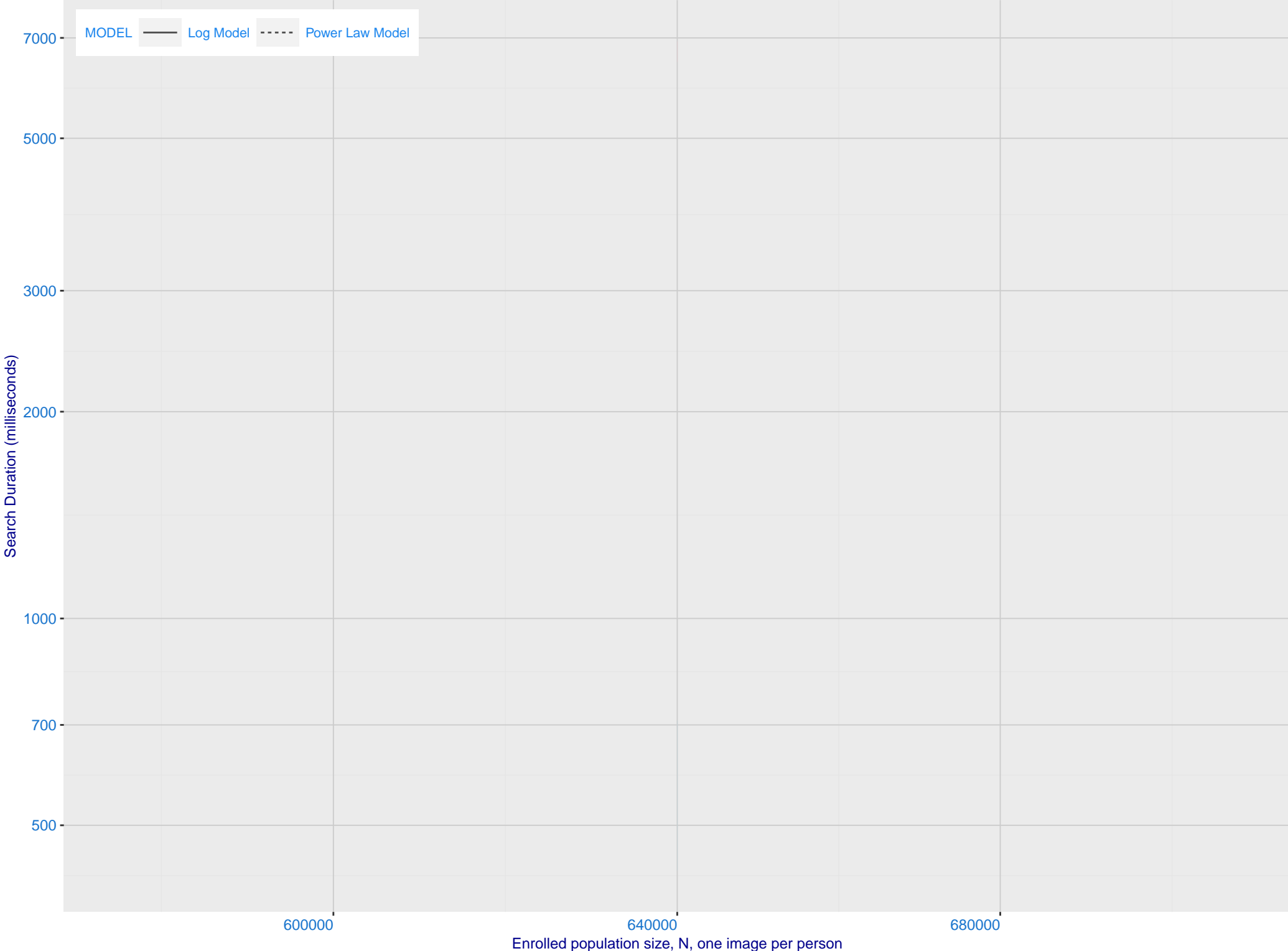
2018 Mugshot
Enrolled image:
recent

00640000

K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

L: Investigational mode: FNIR(1600000, R, 0) by probe type

M: Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power−law models are fit to the first two (N,T) observations

MODEL ——— Log Model ----- Power Law Model

Search Duration (milliseconds)

7000

5000

3000

2000

1000

700

500

600000   640000   680000

Enrolled population size, N, one image per person

Q: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing