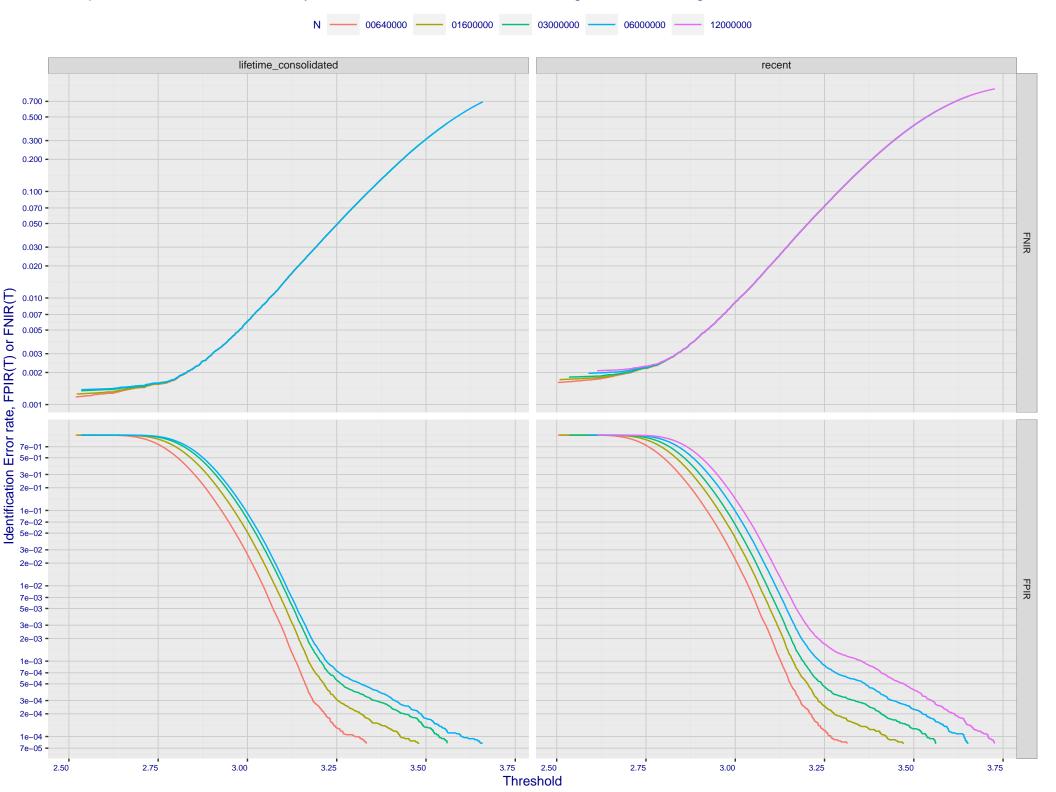
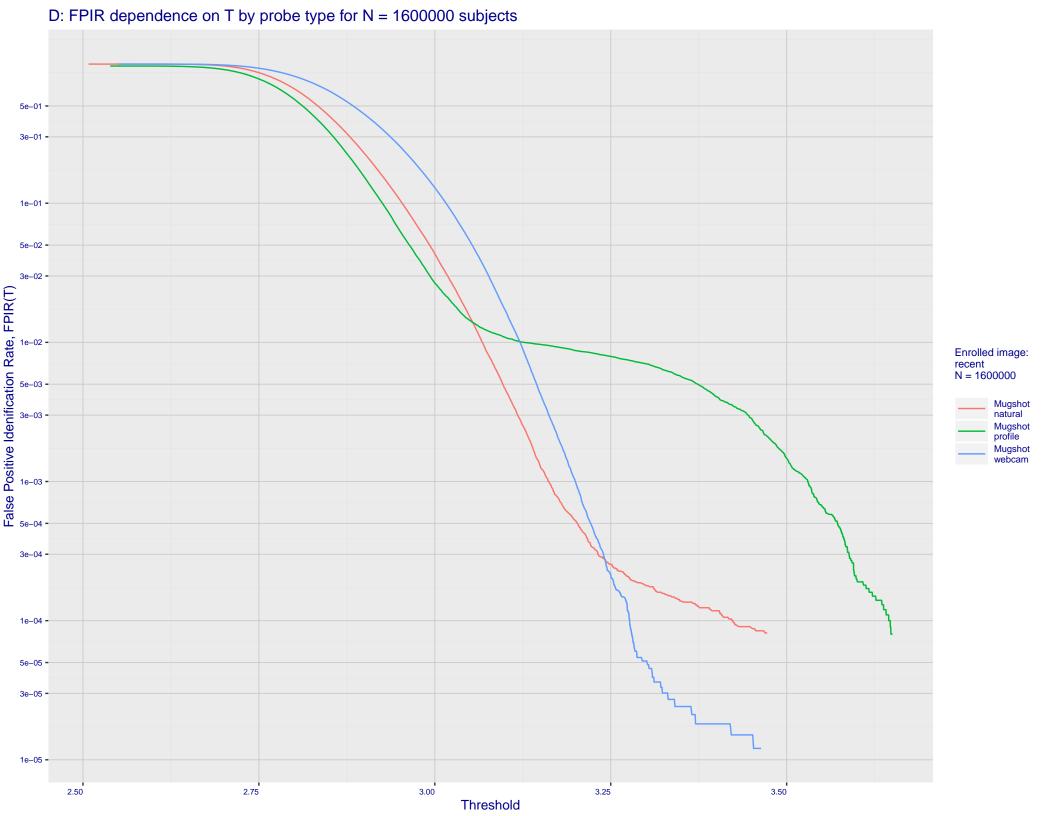
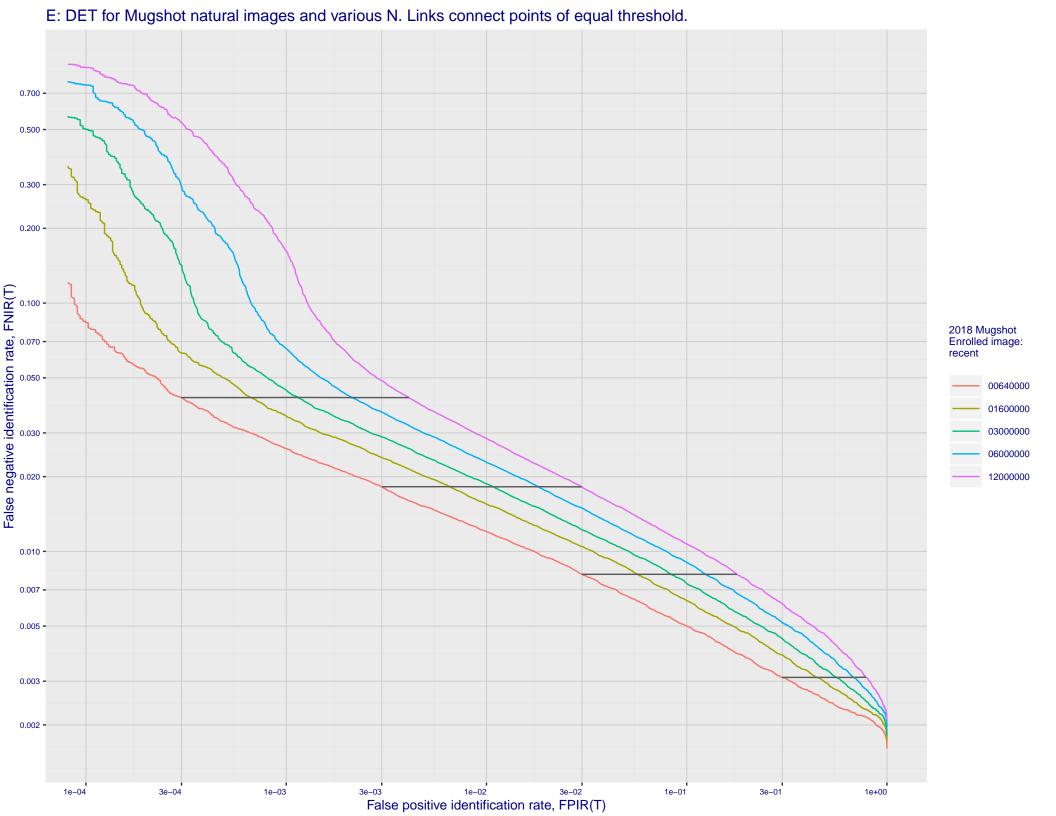
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -False negative identification rate, FNIR(T) enrolment\_style consolidated-ONE-MATE random-ONE-MATE recent-ONE-MATE unconsolidated-ALL-MATES unconsolidated-ANY-MATE 0.007 0.005 0.003 -0.002 -0.001 -1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e-01 False positive identification rate, FPIR(T)

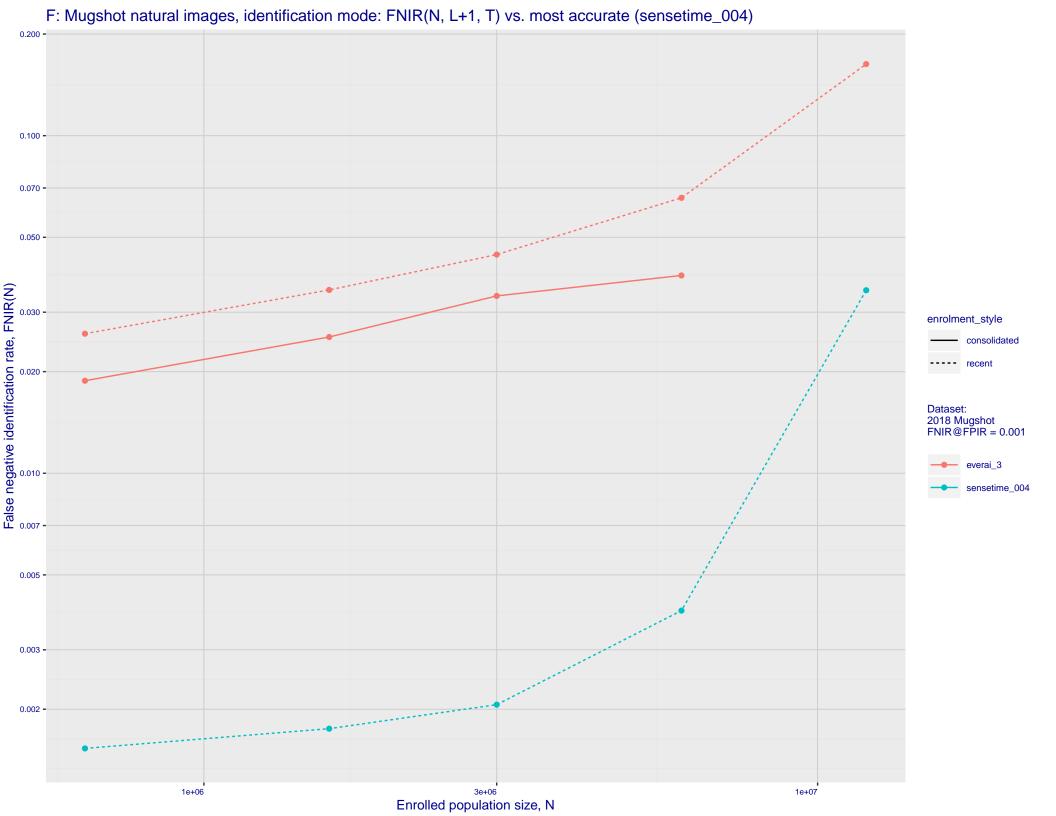
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 5e+01 3e+01 2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -1e-01 -Enrolled images: recent N = 1600000 7e-02 - 7e-02 - 7e-03 Mugshot natural Mugshot profile Mugshot webcam 7e-03 -5e-03 -3e-03 -2e-03 -1e-03 -7e-04 -5e-04 -3e-04 -2e-04 -1e-04 • 7e-05 -5e-05 -3e-05 -2e-05 -1e-05 -1e-05 1e-04 3e-04 1e-01 3e-01 False Positive Idenification Rate, FPIR(T)

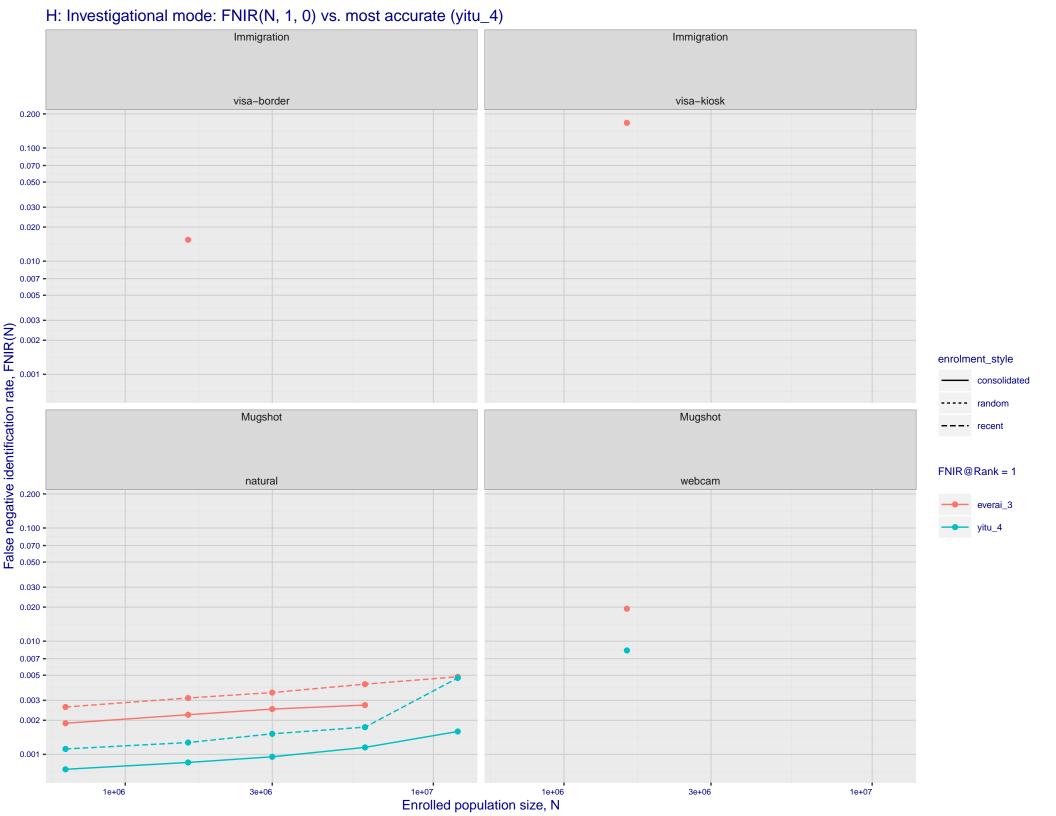


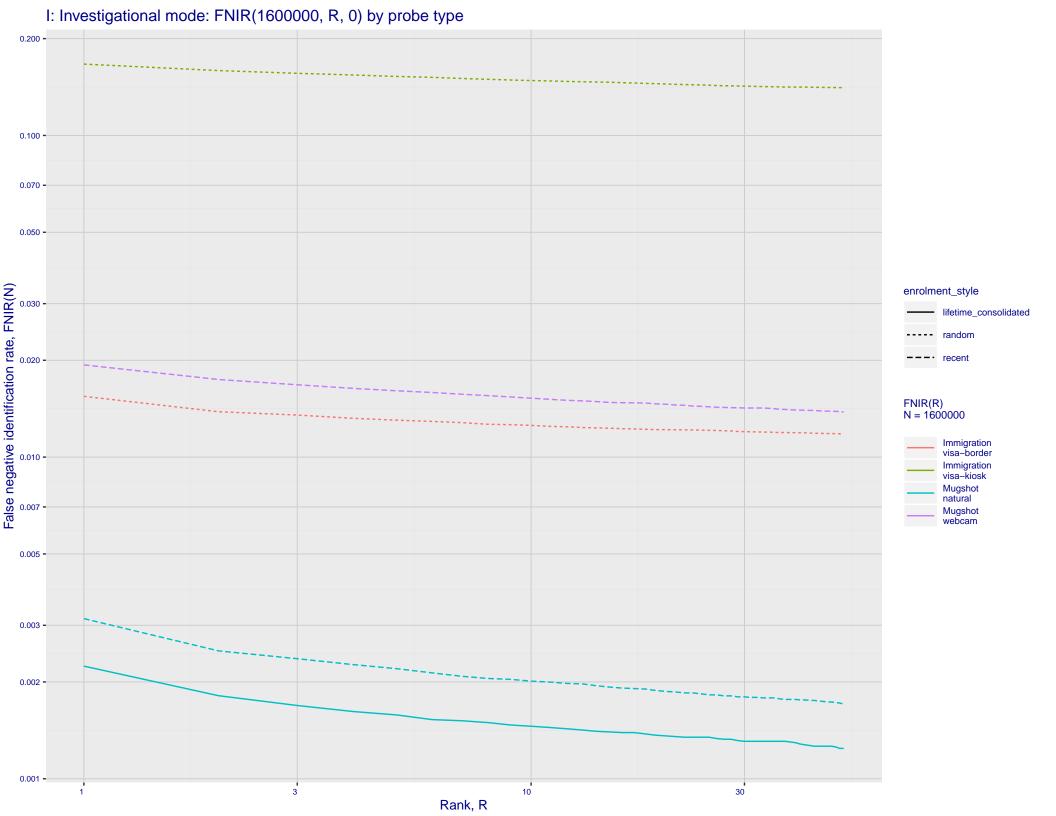




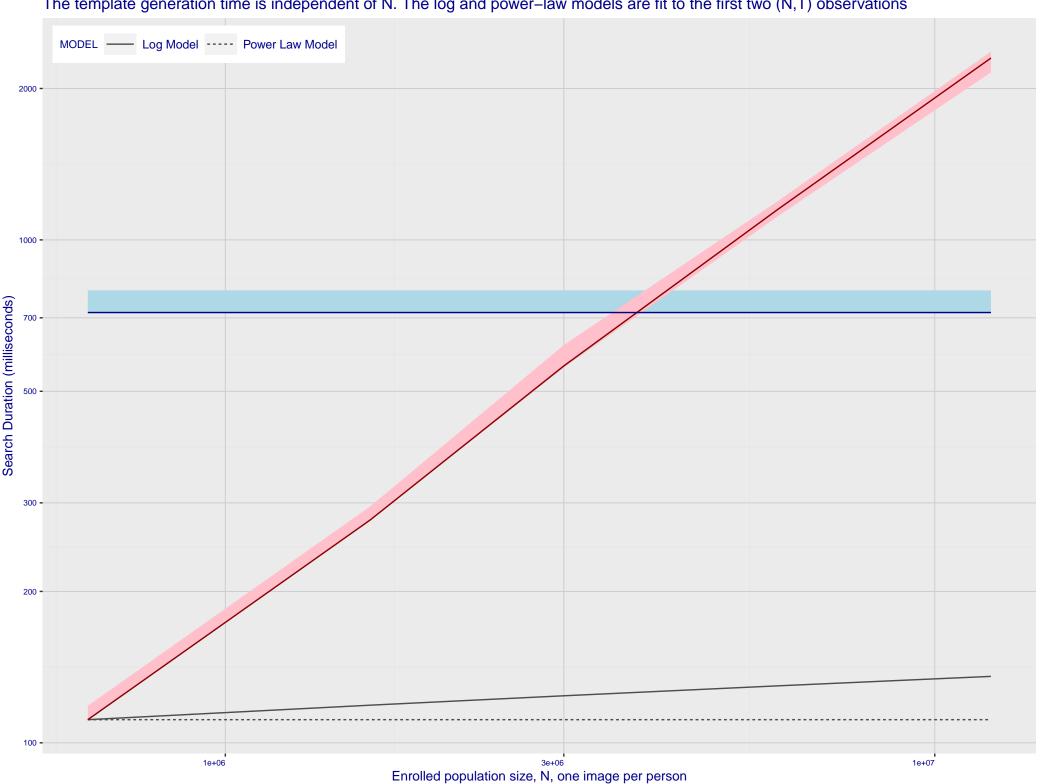
## G: Datasheet

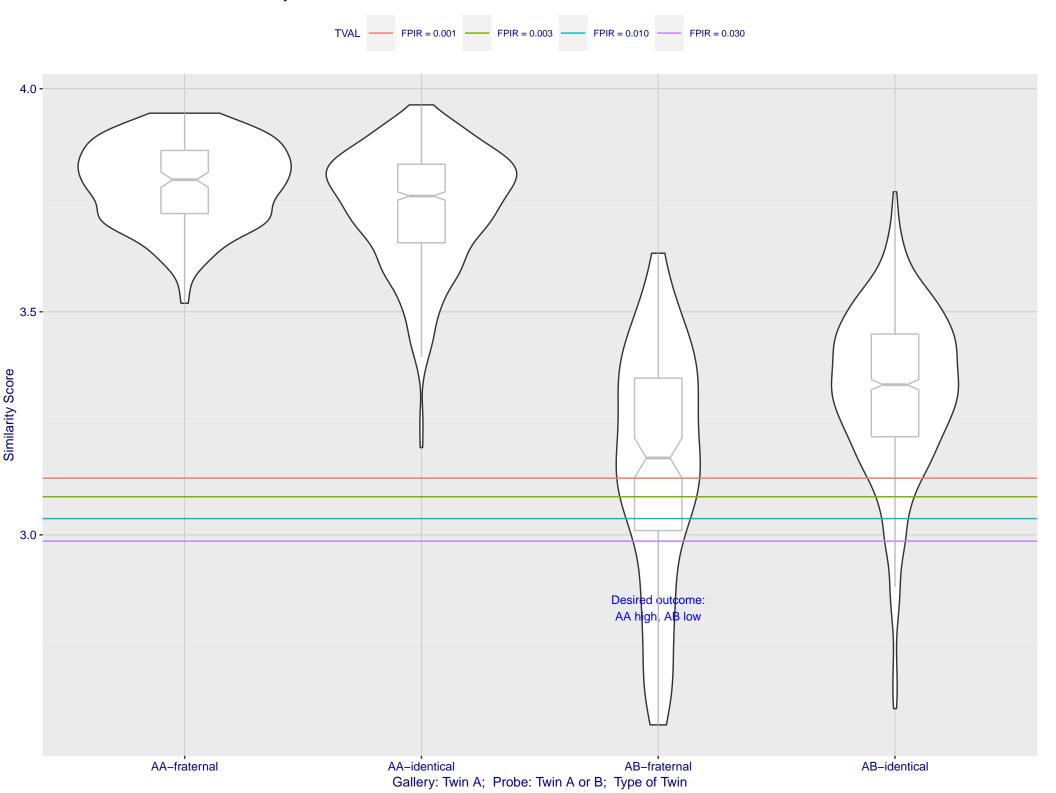
```
Algorithm: everai_3
Developer: Paravision (EverAI)
Submission Date: 2018_10_30
Template size: 2048 bytes
Template time (2.5 percentile): 716 msec
Template time (median): 717 msec
Template time (97.5 percentile): 794 msec
Frontal mugshot investigation rank 44 -- FNIR(1600000, 0, 1) = 0.0031 vs. lowest 0.0010 from sensetime_004
natural investigation rank 55 -- FNIR(1600000, 0, 1) = 0.0194 vs. lowest 0.0067 from sensetime_003
natural investigation rank 23 -- FNIR(1600000, 0, 1) = 0.1191 vs. lowest 0.0492 from paravision_005
natural investigation rank 23 -- FNIR(1600000, 0, 1) = 0.1191 vs. lowest 0.0492 from paravision_005
natural investigation rank 54 -- FNIR(1600000, 0, 1) = 0.0154 vs. lowest 0.0014 from visionlabs_009
natural investigation rank 53 -- FNIR(1600000, 0, 1) = 0.1667 vs. lowest 0.0694 from cib_000
Frontal mugshot identification rank 46 -- FNIR(1600000, T, L+1) = 0.0349 vs. lowest 0.0018 from sensetime_004
natural identification rank 48 -- FNIR(1600000, T, L+1) = 0.0955 vs. lowest 0.0122 from sensetime_003
natural identification rank 62 -- FNIR(1600000, T, L+1) = 0.9743 vs. lowest 0.1020 from sensetime_004
natural identification rank 37 -- FNIR(1600000, T, L+1) = 0.0575 vs. lowest 0.0059 from sensetime_004
natural identification rank 28 -- FNIR(1600000, T, L+1) = 0.2978 vs. lowest 0.1129 from visionlabs_009
```





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





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

