

3F Results

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Note:

*

Finger	01	02	03	06	07	08	01+06	02+07	03+08
Description	Right Thumb	Right Index	Right Middle	Left Thumb	Left Index	Left Middle	Right and Left Thumb	Right and Left Index	Right and Left Middle

** FMRs@FNMR={.0002 and 0.0005} are not available (NA).

3F 1K Sample Template Size Distribution

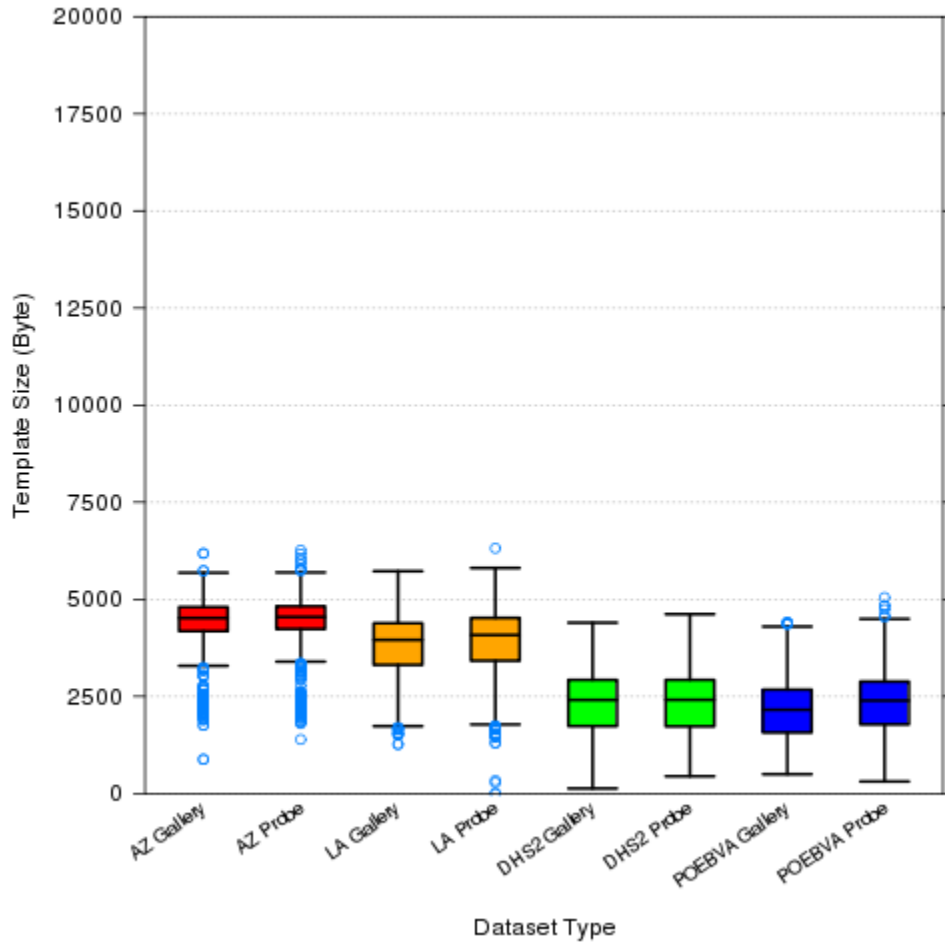


Figure 3F-1

Dataset	AZ	AZ	LA	LA	DHS2	DHS2	POEBVA	POEBVA
Type	Gallery	Probe	Gallery	Probe	Gallery	Probe	Gallery	Probe
Width x Height (pixels)	800x800	800x800	412x1000	400x776	368x368	368x368	500x500	368x368
Maximum	6182	6264	5724	6314	4398	4618	4404	5048
75%	4801	4822	4385	4521	2926	2926	2674	2883
Median	4518	4546	3954	4082	2408	2411	2155	2393
25%	4180	4236	3312	3418	1735	1727	1569	1780
Minimum	880	1392	1266	0	130	444	498	310

Table 3F-1

3F 1K Sample Enrollment and Comparison time

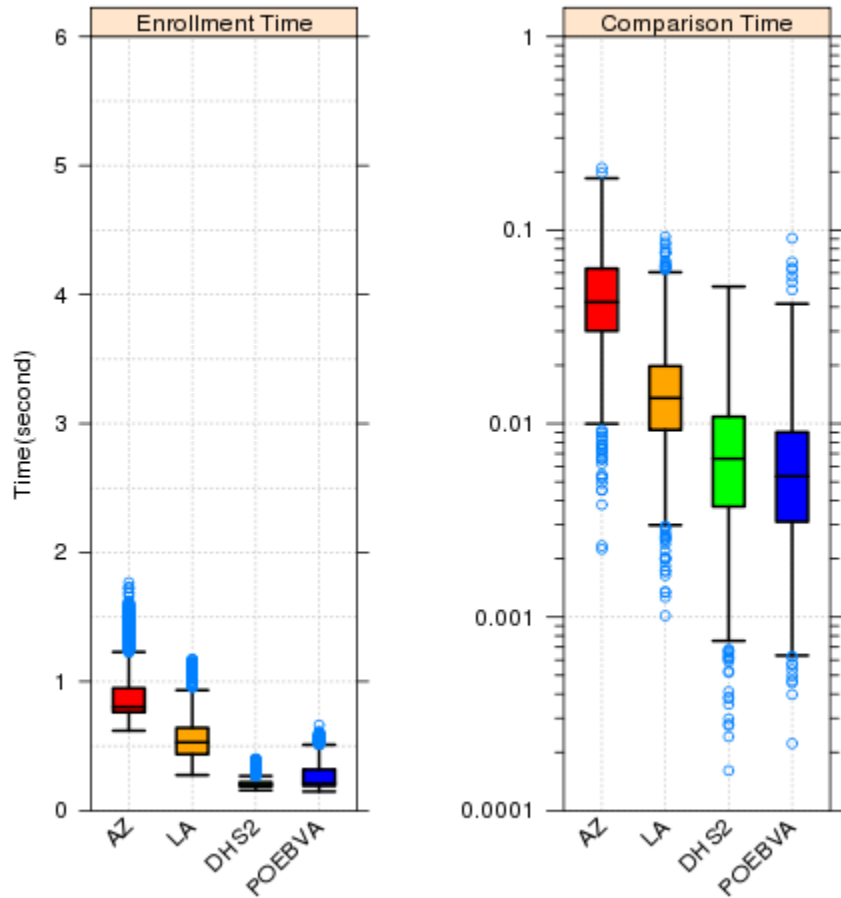


Figure 3F-2

Enrollment Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	1.7674	1.1711	0.4009	0.6617
75%	0.9490	0.6413	0.2203	0.3187
Median	0.8028	0.5290	0.1950	0.2095
25%	0.7621	0.4363	0.1881	0.1912
Minimum	0.6192	0.2751	0.1566	0.1473

Comparison Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	0.2095	0.0923	0.0510	0.0908
75%	0.0633	0.0198	0.0109	0.0090
Median	0.0424	0.0135	0.0066	0.0053
25%	0.0301	0.0093	0.0037	0.0031
Minimum	0.0022	0.0000	0.0002	0.0002

Table 3F-2 1K Sample Enrollment and Comparison Time

3F- DET for ALL Datasets (P2P)

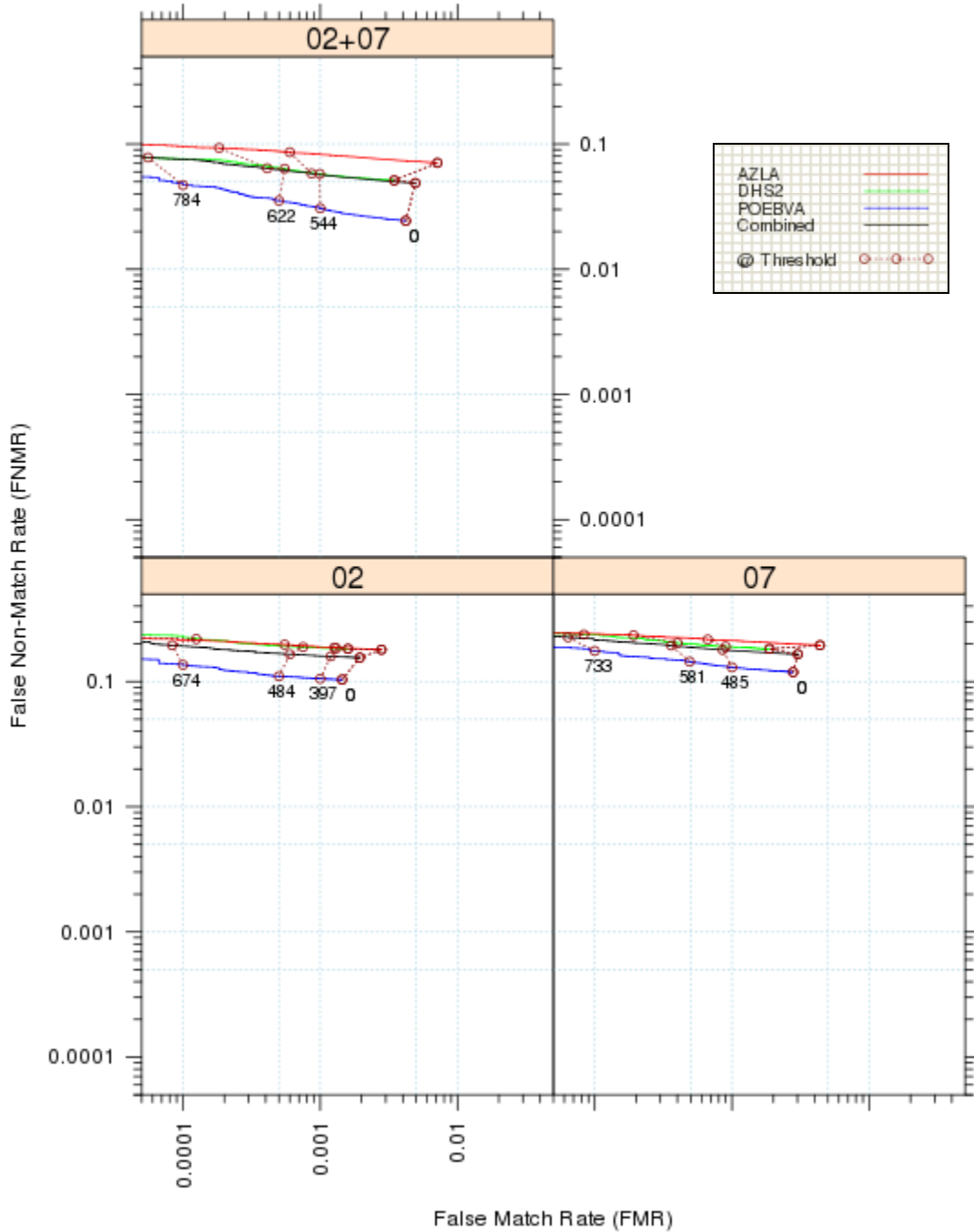


Figure 3F-3

3F- DET for dataset AZLA

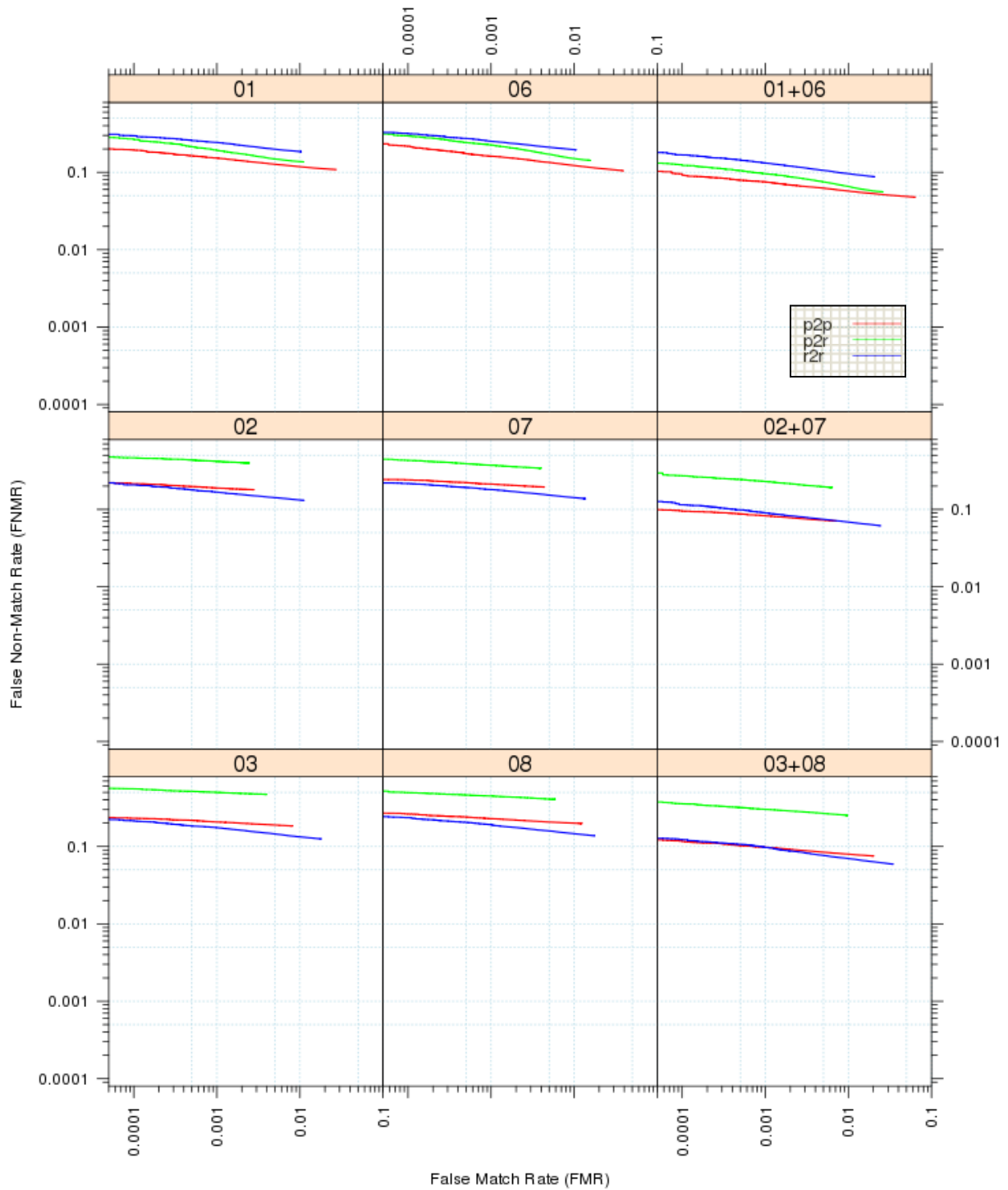


Figure 3F-4

Note: p2p - plain vs. plain; p2r - plain vs. rolled; r2r – rolled vs. rolled.

3F EER and FTE

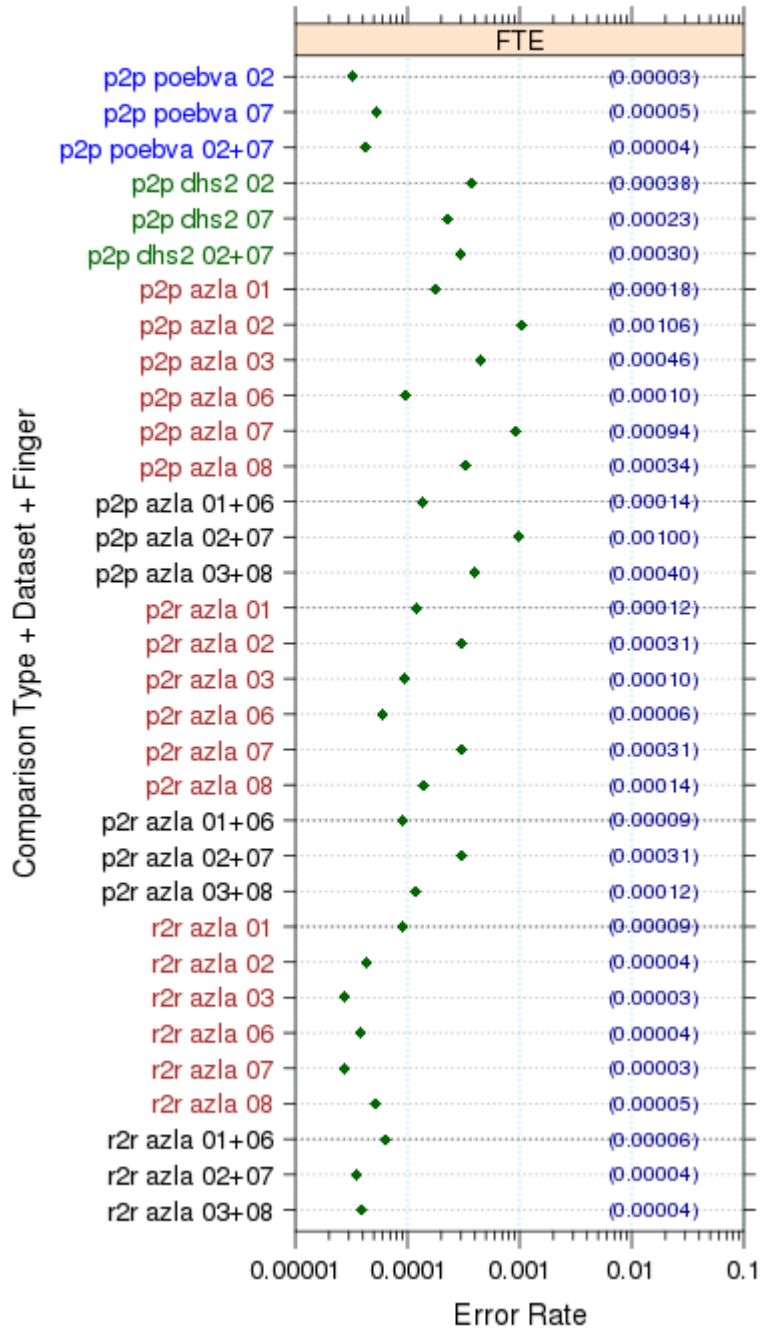


Figure 3F-5

Note: EER is not presented in Fig 3F-5 due to the minimum of FNMR is greater than the maximum of FMR (See Fig 3F-3, 3F-4).

3F - FNMRs @ FMR = .0001 and 95% Confidence Intervals

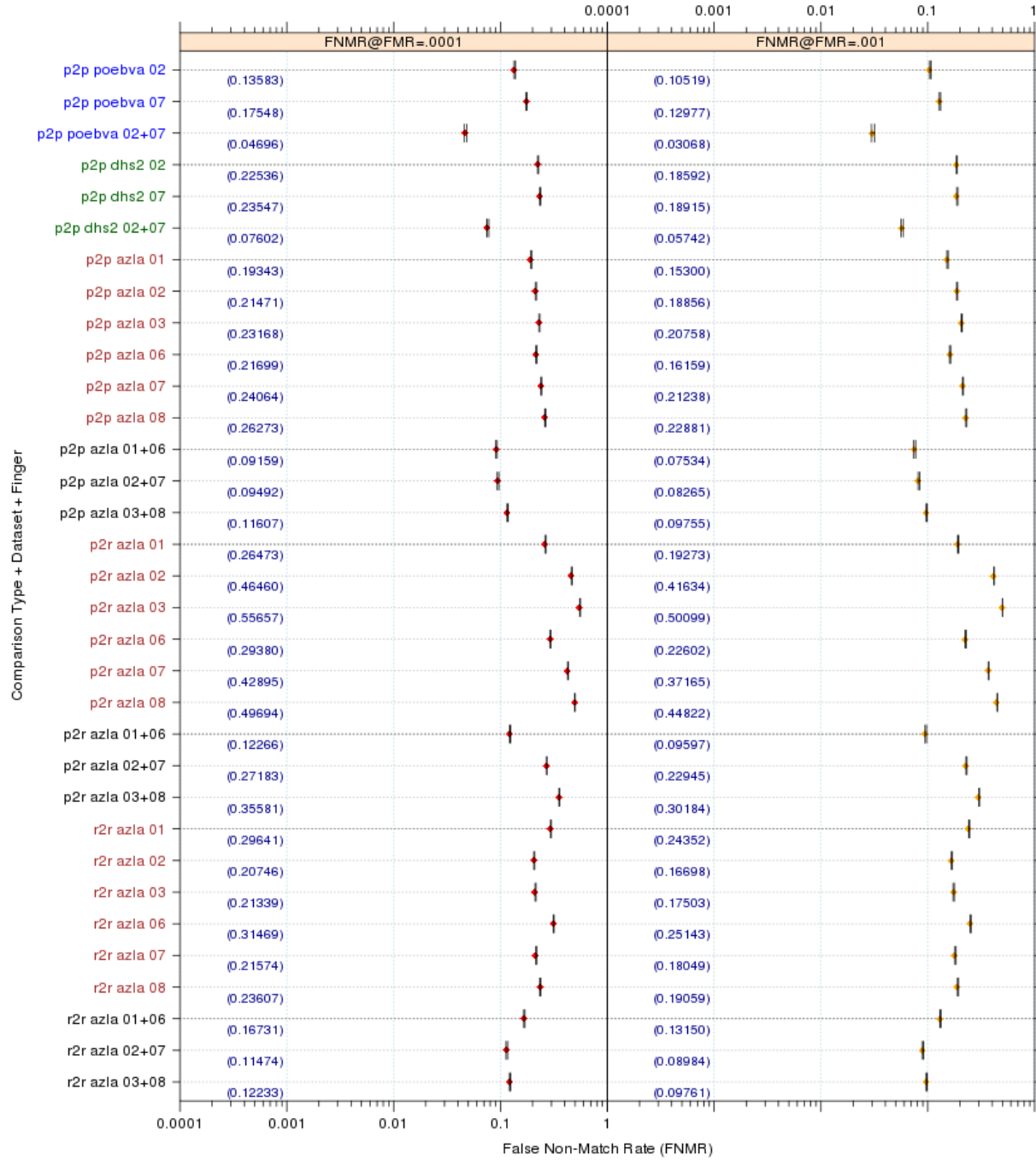


Figure 3F-5

3F - EER and FTE table

Comparison Type	Dataset	Finger Position	EER	FTE Rate	FTE count
p2p	poebva	02	NA	0.00003	12
p2p	poebva	07	NA	0.00005	19
p2p	poebva	02+07	NA	0.00004	31
p2p	dhs2	02	NA	0.00038	135
p2p	dhs2	07	NA	0.00023	84
p2p	dhs2	02+07	NA	0.00030	219
p2p	azla	01	NA	0.00018	65
p2p	azla	02	NA	0.00106	383
p2p	azla	03	NA	0.00046	166
p2p	azla	06	NA	0.00010	35
p2p	azla	07	NA	0.00094	338
p2p	azla	08	NA	0.00034	121
p2p	azla	01+06	NA	0.00014	100
p2p	azla	02+07	NA	0.00100	721
p2p	azla	03+08	NA	0.00040	287
p2r	azla	01	NA	0.00012	44
p2r	azla	02	NA	0.00031	110
p2r	azla	03	NA	0.00010	35
p2r	azla	06	NA	0.00006	22
p2r	azla	07	NA	0.00031	112
p2r	azla	08	NA	0.00014	51
p2r	azla	01+06	NA	0.00009	66
p2r	azla	02+07	NA	0.00031	222
p2r	azla	03+08	NA	0.00012	86
r2r	azla	01	NA	0.00009	33
r2r	azla	02	NA	0.00004	16
r2r	azla	03	NA	0.00003	10
r2r	azla	06	NA	0.00004	14
r2r	azla	07	NA	0.00003	10
r2r	azla	08	NA	0.00005	19
r2r	azla	01+06	NA	0.00007	47
r2r	azla	02+07	NA	0.00004	26
r2r	azla	03+08	NA	0.00004	29

Table 3F-3

Note: EER (NA) - Could not obtain EER due to the minimum of FNMR is greater than the maximum of FMR (See Fig 3F-3, 3F-4).

3F- FNMR @ FMR= (0.0001, 0.001) and 95% Confidence Intervals

Matching Type	Dataset	Finger position	FNMR@ FMR= 0.0001	95% Confidence Interval of FNMR	FNMR@ FMR= 0.001	95% Confidence Interval of FNMR	FMR1 @ FNMR= 0.002	FMR1 @ FNMR= 0.005
p2p	poebva	02	0.1358	±0.0019	0.1052	±0.0017	NA	NA
p2p	poebva	07	0.1755	±0.0022	0.1298	±0.0019	NA	NA
p2p	poebva	02+07	0.0470	±0.0012	0.0307	±0.0010	NA	NA
p2p	dhs2	02	0.2254	±0.0024	0.1859	±0.0022	NA	NA
p2p	dhs2	07	0.2355	±0.0024	0.1892	±0.0022	NA	NA
p2p	dhs2	02+07	0.0760	±0.0015	0.0574	±0.0013	NA	NA
p2p	azla	01	0.1934	±0.0022	0.1530	±0.0021	NA	NA
p2p	azla	02	0.2147	±0.0023	0.1886	±0.0022	NA	NA
p2p	azla	03	0.2317	±0.0024	0.2076	±0.0023	NA	NA
p2p	azla	06	0.2170	±0.0023	0.1616	±0.0022	NA	NA
p2p	azla	07	0.2406	±0.0024	0.2124	±0.0023	NA	NA
p2p	azla	08	0.2627	±0.0025	0.2288	±0.0024	NA	NA
p2p	azla	01+06	0.0916	±0.0018	0.0753	±0.0016	NA	NA
p2p	azla	02+07	0.0949	±0.0017	0.0827	±0.0016	NA	NA
p2p	azla	03+08	0.1161	±0.0018	0.0976	±0.0017	NA	NA
p2r	azla	01	0.2647	±0.0025	0.1927	±0.0022	NA	NA
p2r	azla	02	0.4646	±0.0028	0.4163	±0.0028	NA	NA
p2r	azla	03	0.5566	±0.0028	0.5010	±0.0028	NA	NA
p2r	azla	06	0.2938	±0.0026	0.2260	±0.0024	NA	NA
p2r	azla	07	0.4290	±0.0028	0.3717	±0.0027	NA	NA
p2r	azla	08	0.4969	±0.0028	0.4482	±0.0028	NA	NA
p2r	azla	01+06	0.1227	±0.0019	0.0960	±0.0017	NA	NA
p2r	azla	02+07	0.2718	±0.0025	0.2295	±0.0024	NA	NA
p2r	azla	03+08	0.3558	±0.0027	0.3018	±0.0026	NA	NA
r2r	azla	01	0.2964	±0.0026	0.2435	±0.0024	NA	NA
r2r	azla	02	0.2075	±0.0023	0.1670	±0.0021	NA	NA
r2r	azla	03	0.2134	±0.0023	0.1750	±0.0022	NA	NA
r2r	azla	06	0.3147	±0.0026	0.2514	±0.0025	NA	NA
r2r	azla	07	0.2157	±0.0023	0.1805	±0.0022	NA	NA
r2r	azla	08	0.2361	±0.0024	0.1906	±0.0022	NA	NA
r2r	azla	01+06	0.1673	±0.0021	0.1315	±0.0019	NA	NA
r2r	azla	02+07	0.1147	±0.0018	0.0898	±0.0016	NA	NA
r2r	azla	03+08	0.1223	±0.0019	0.0976	±0.0017	NA	NA

Table 3F-4

Note: FNMR @ FMR=0.001 per participant requested.

FMR @ FNMR=(0.002,0.005) are not available, see Figure 3F-3, 3F-4.