

PFTII 3A Results (Updated)

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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

3A 1K Sample Template Size Distribution

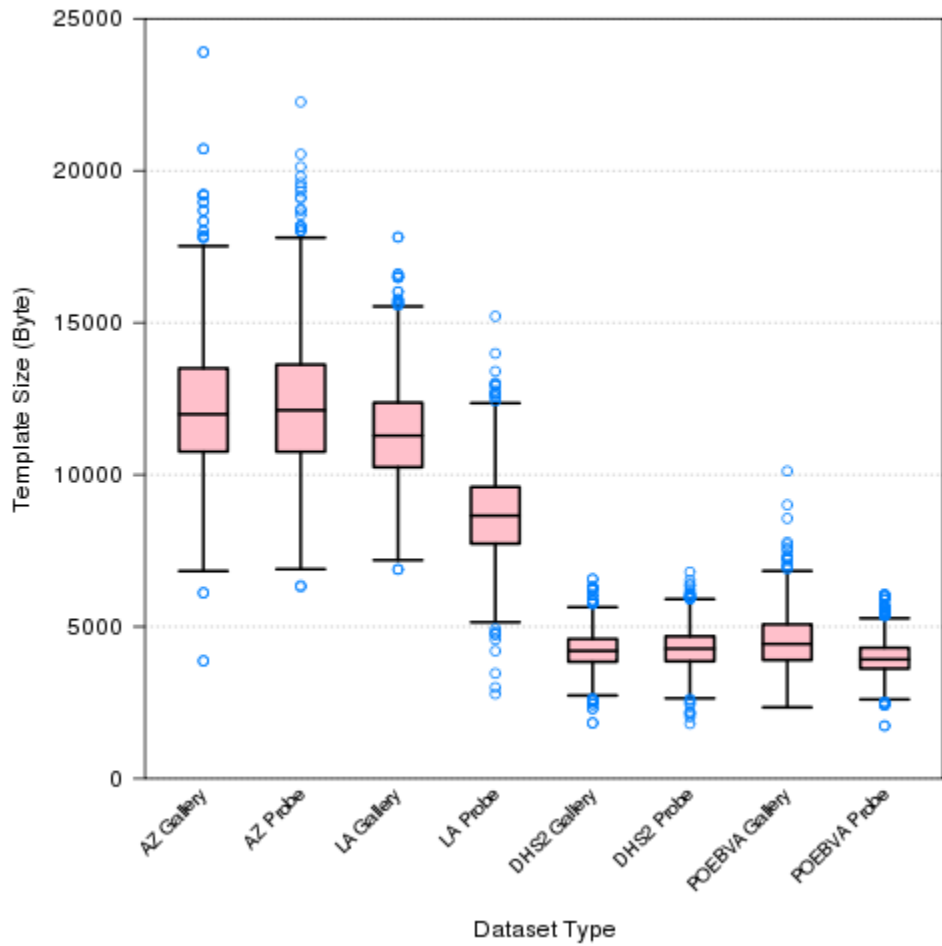


Figure 3A-1

3A Template Size (Byte)

Dataset	AZ	AZ	LA	LA	DHS2	DHS2	POEBVA	POEBVA
Type	Gallery	Probe	Gallery	Probe	Gallery	Probe	Gallery	Probe
WidthxHeight (ppi)	800x800	800x800	412x1000	400x776	368x368	368x368	500x500	368x368
Maximum	23901	22262	17814	15211	6566	6796	10120	6050
75%	13501	13622	12371	9595	4594	4683	5076	4307
Median	11988	12121	11283	8651	4201	4275	4429	3924
25%	10758	10752	10246	7730	3842	3862	3901	3619
Minimum	3875	6308	6883	2788	1834	1808	2346	1738

Table 3A-1

3A 1K sample Enrollment and Comparison time

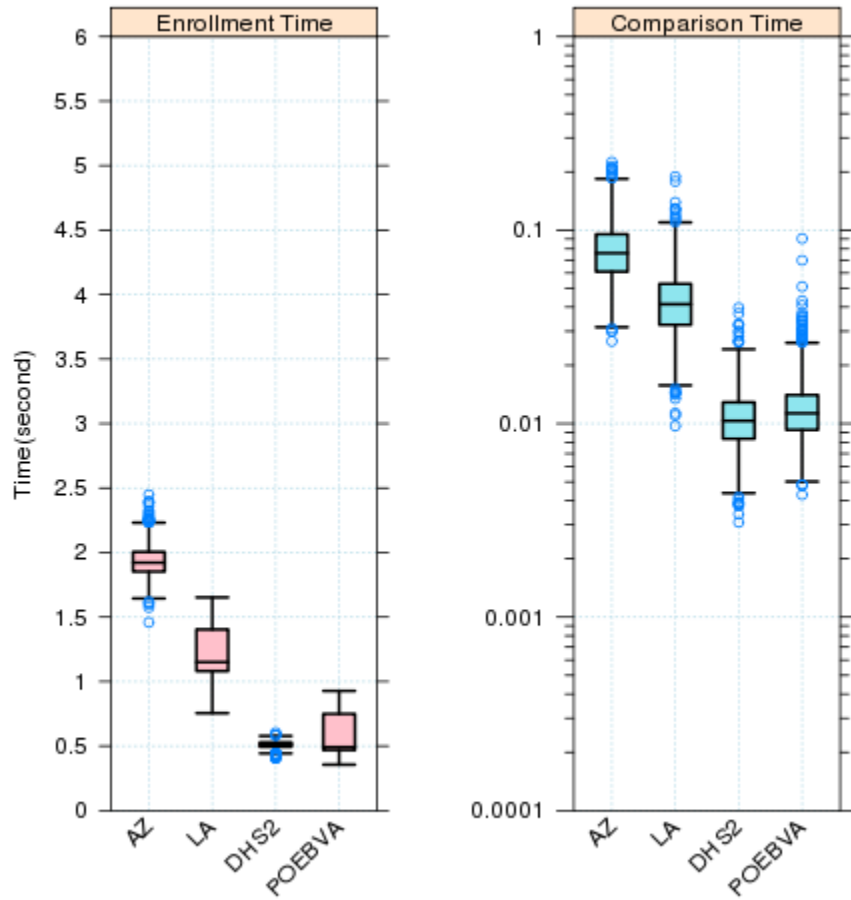


Figure 3A-2

Enrollment Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	2.4488	1.6522	0.6042	0.9276
75%	2.0047	1.4039	0.5283	0.7493
Median	1.9216	1.1506	0.5124	0.4918
25%	1.8523	1.0811	0.4942	0.4694
Minimum	1.4591	0.7552	0.4046	0.3557

Comparison Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	0.2245	0.1888	0.0397	0.0904
75%	0.0952	0.0527	0.0129	0.0140
Median	0.0759	0.0414	0.0103	0.0113
25%	0.0609	0.0324	0.0083	0.0093
Minimum	0.0267	0.0097	0.0031	0.0043

Table 3A-2

3A- DET for ALL Datasets (P2P)

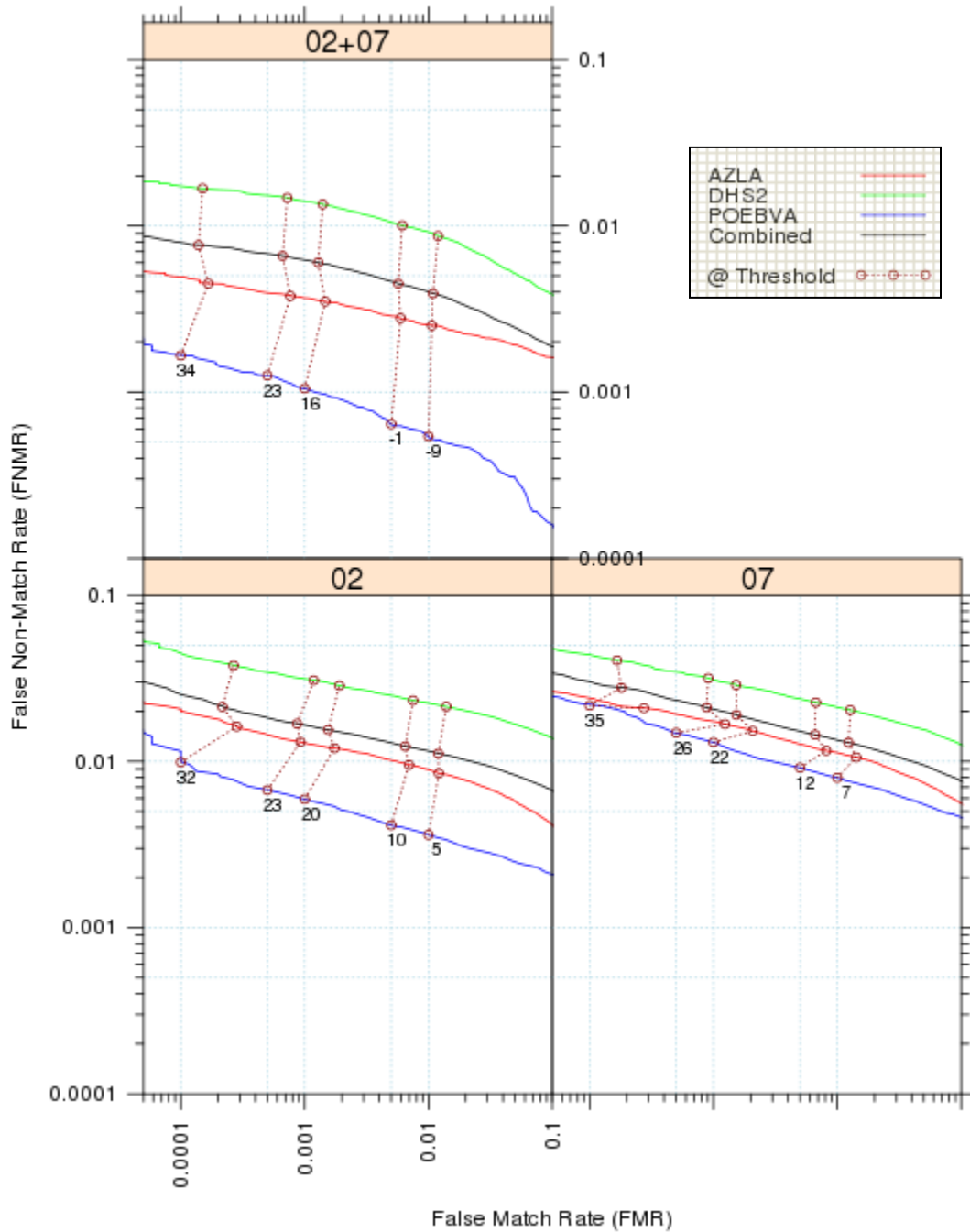


Figure 3A-3

3A- DET for dataset AZLA

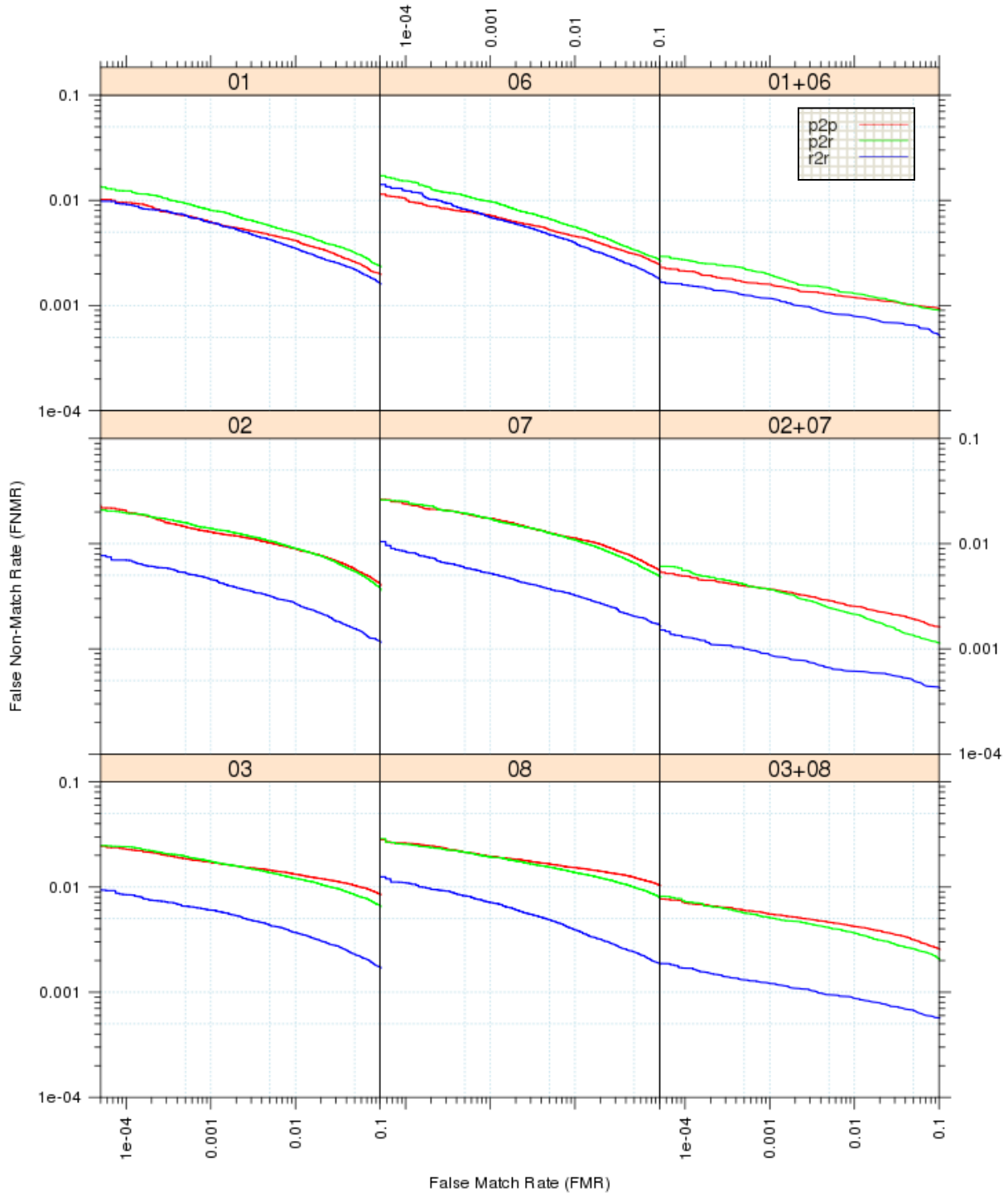


Figure 3A-4

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

3A EER and FTE

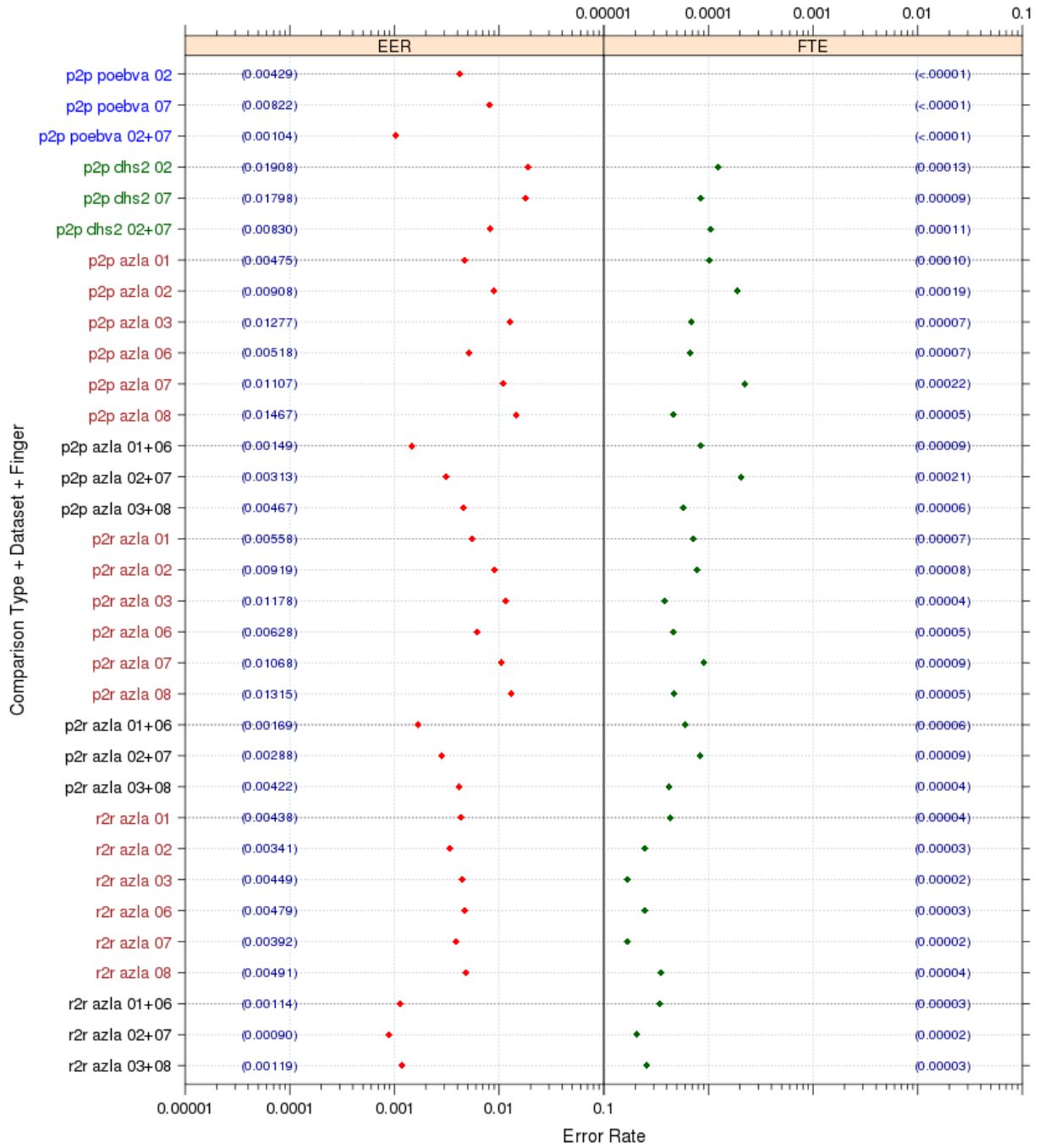


Figure 3A-5

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

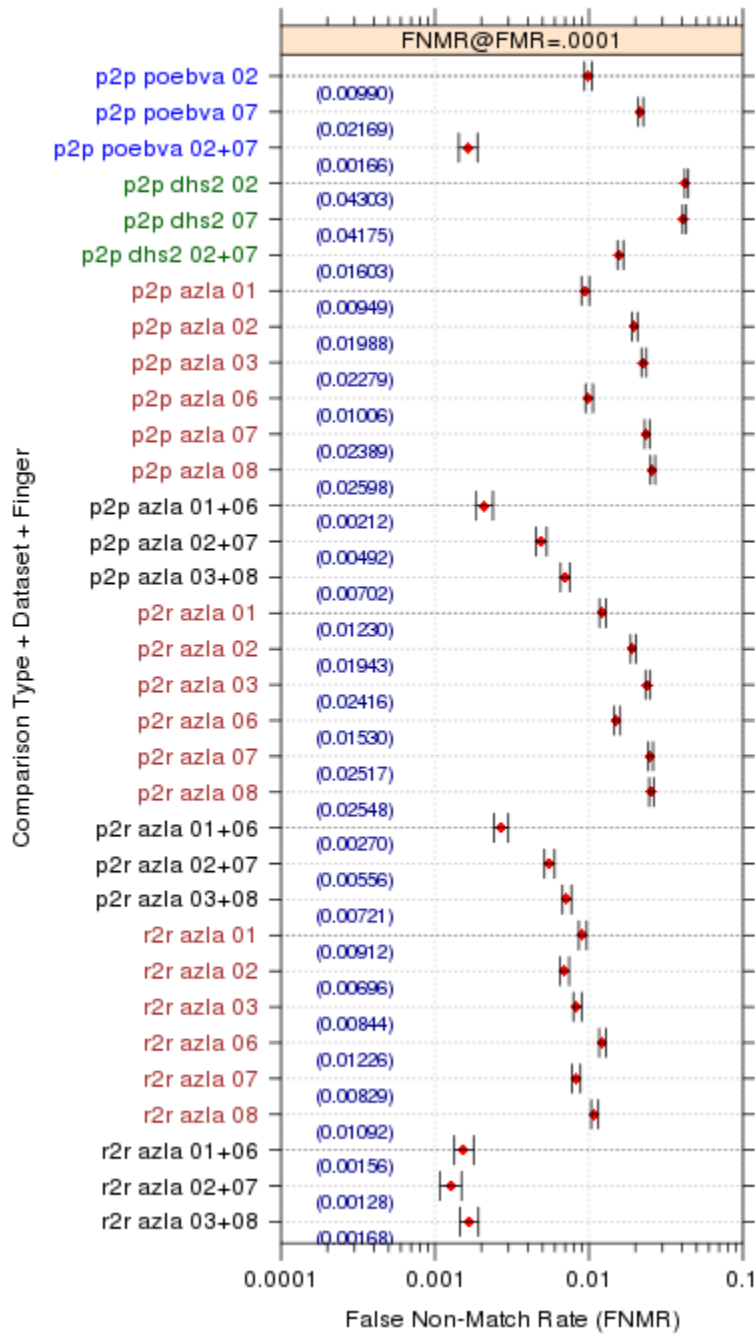


Figure 3A-6

3A- FMRs @ FNMR = (.002, 0.005) and 95% Confidence Intervals

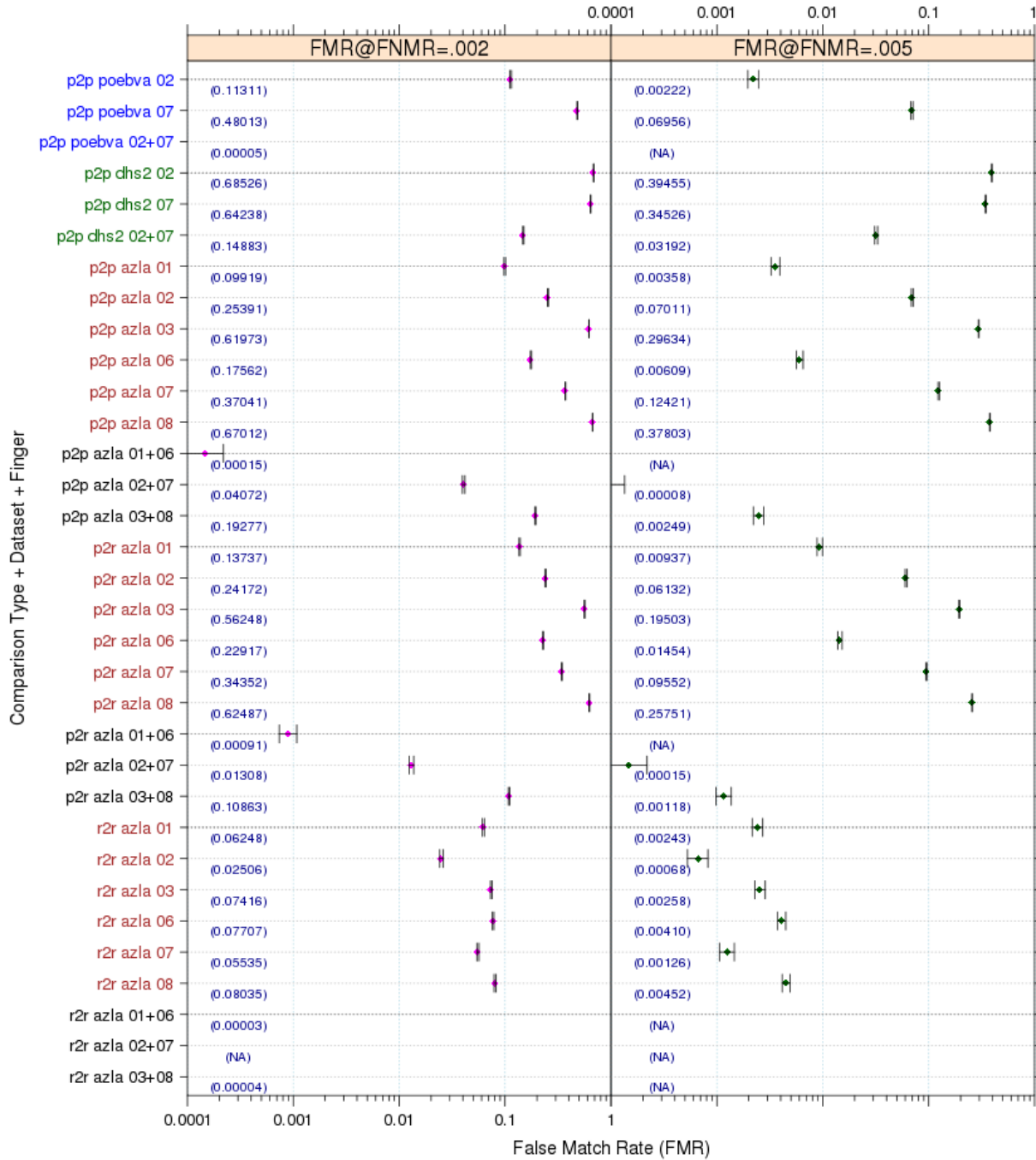


Figure 3A-7

Note: NA – The number couldn't be reliably measured with the current sample size of 120,000.

3A EER and FTE table

Comparison Type	Dataset	Finger position	EER	FTE Rate	FTE count
p2p	poebva	02	0.004292	0.000003	1
p2p	poebva	07	0.008225	0.000000	0
p2p	poebva	02+07	0.001042	0.000001	1
p2p	dhs2	02	0.020142	0.000125	45
p2p	dhs2	07	0.018942	0.000086	31
p2p	dhs2	02+07	0.009308	0.000106	76
p2p	azla	01	0.004750	0.000103	37
p2p	azla	02	0.009083	0.000192	69
p2p	azla	03	0.012767	0.000069	25
p2p	azla	06	0.005183	0.000067	24
p2p	azla	07	0.011075	0.000225	81
p2p	azla	08	0.014667	0.000047	17
p2p	azla	01+06	0.001492	0.000085	61
p2p	azla	02+07	0.003125	0.000208	150
p2p	azla	03+08	0.004667	0.000058	42
p2r	azla	01	0.005583	0.000072	26
p2r	azla	02	0.009192	0.000078	28
p2r	azla	03	0.011783	0.000039	14
p2r	azla	06	0.006275	0.000047	17
p2r	azla	07	0.010683	0.000092	33
p2r	azla	08	0.013150	0.000047	17
p2r	azla	01+06	0.001692	0.000060	43
p2r	azla	02+07	0.002883	0.000085	61
p2r	azla	03+08	0.004217	0.000043	31
r2r	azla	01	0.004383	0.000044	16
r2r	azla	02	0.003408	0.000025	9
r2r	azla	03	0.004492	0.000017	6
r2r	azla	06	0.004792	0.000025	9
r2r	azla	07	0.003925	0.000017	6
r2r	azla	08	0.004908	0.000036	13
r2r	azla	01+06	0.001142	0.000035	25
r2r	azla	02+07	0.000900	0.000021	15
r2r	azla	03+08	0.001192	0.000026	19

Table 3A-3

3A- FNMR @ FMR=0.0001, FMRs @ FNMR = (.002, 0.005) and 95% Confidence Intervals

Matching Type	Dataset	Finger position	FNMR1@ FMR= 0.0001	95% Confidence Interval of FNMR	FMR1 @ FNMR= 0.002	95% Confidence Interval of FMR1	FMR2@ FNMR= 0.005	95% Confidence Interval of FMR2
p2p	poebva	02	0.00990	± 0.00056	0.11311	± 0.001792	0.00223	± 0.00026
p2p	poebva	07	0.02169	± 0.00082	0.48013	± 0.002827	0.06956	± 0.00143
p2p	poebva	02+07	0.00166	± 0.00023	0.00005	± 0.000040	NA	NA
p2p	dhs2	02	0.04423	± 0.00116	0.91418	± 0.001585	0.48573	± 0.00282
p2p	dhs2	07	0.04291	± 0.00114	0.86804	± 0.001915	0.44215	± 0.00281
p2p	dhs2	02+07	0.01724	± 0.00073	0.63236	± 0.002728	0.05437	± 0.00128
p2p	azla	01	0.00949	± 0.00055	0.09919	± 0.001691	0.00358	± 0.00033
p2p	azla	02	0.01988	± 0.00079	0.25391	± 0.002463	0.07011	± 0.00144
p2p	azla	03	0.02279	± 0.00084	0.61973	± 0.002747	0.29634	± 0.00258
p2p	azla	06	0.01006	± 0.00057	0.17562	± 0.002153	0.00609	± 0.00044
p2p	azla	07	0.02389	± 0.00086	0.37041	± 0.002732	0.12421	± 0.00186
p2p	azla	08	0.02598	± 0.00090	0.67012	± 0.002660	0.37803	± 0.00274
p2p	azla	01+06	0.00212	± 0.00026	0.00015	± 0.000069	NA	NA
p2p	azla	02+07	0.00492	± 0.00039	0.04072	± 0.001118	0.00008	± 0.00005
p2p	azla	03+08	0.00702	± 0.00047	0.19277	± 0.002232	0.00249	± 0.00028
p2r	azla	01	0.01230	± 0.00062	0.13738	± 0.001948	0.00938	± 0.00054
p2r	azla	02	0.01943	± 0.00078	0.24173	± 0.002422	0.06132	± 0.00135
p2r	azla	03	0.02416	± 0.00086	0.56248	± 0.002807	0.19503	± 0.00224
p2r	azla	06	0.01530	± 0.00069	0.22917	± 0.002378	0.01454	± 0.00067
p2r	azla	07	0.02517	± 0.00088	0.34352	± 0.002687	0.09553	± 0.00166
p2r	azla	08	0.02548	± 0.00089	0.62488	± 0.002739	0.25751	± 0.00247
p2r	azla	01+06	0.00270	± 0.00029	0.00091	± 0.00017	NA	NA
p2r	azla	02+07	0.00556	± 0.00042	0.01308	± 0.000643	0.00015	± 0.00006
p2r	azla	03+08	0.00721	± 0.00047	0.10863	± 0.001761	0.00118	± 0.00019
r2r	azla	01	0.00913	± 0.00053	0.06248	± 0.001369	0.00243	± 0.00027
r2r	azla	02	0.00696	± 0.00047	0.02506	± 0.000884	0.00068	± 0.00014
r2r	azla	03	0.00844	± 0.00051	0.07416	± 0.001483	0.00258	± 0.00028
r2r	azla	06	0.01226	± 0.00062	0.07707	± 0.001509	0.00410	± 0.00036
r2r	azla	07	0.00829	± 0.00051	0.05535	± 0.001294	0.00126	± 0.00020
r2r	azla	08	0.01092	± 0.00058	0.08035	± 0.001538	0.00452	± 0.00037
r2r	azla	01+06	0.00156	± 0.00022	0.00003	± 0.000028	NA	NA
r2r	azla	02+07	0.00128	± 0.00020	NA	NA	NA	NA
r2r	azla	03+08	0.00168	± 0.00023	0.00004	± 0.000037	NA	NA

Table 3A-4

Note: NA – The number couldn't be reliably measured with the current sample size of 120,000..