

Participant Results

Proprietary Fingerprint Template Evaluation II (PFT-II)

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Image Group

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Contents

1	1K Sample Evaluation	3
2	Full Evaluation	5
3	Original PFT Dataset	13

List of Figures

1	1K Sample Evaluation – Template Size Distribution	3
2	1K Sample Evaluation – Enrollment and Comparison Timing	4
3	Full Evaluation – DET for POEBVA, DHS2, AZLA, and combined from R Index, L Index, and R/L Index	5
4	Full Evaluation – DET for all finger positions from AZLA	6
5	Full Evaluation – EERs and FTEs	7
6	Full Evaluation – FMR@FNMR = (0.002, 0.005) and 95% Confidence Intervals	8
7	Full Evaluation – FNMR@FMR = 0.0001 and 95% Confidence Intervals	9
8	Original PFT Dataset – DET	13

List of Tables

1	Sample Dataset — Template Size Distribution	3
2	Enrollment Times (sec)	4
3	Comparison Times (sec)	4
4	EER and FTE — Dataset AZLA	10
5	EER and FTE — Dataset DHS2	10
6	EER and FTE — Dataset POEBVA	10
7	Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset AZLA	11
8	Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset DHS2	12
9	Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset POEBVA	12
10	Details for EER, FNMR@FMR = 0.0001, and FMR@FNMR = 0.005 — Original PFT Dataset	13

1 1K Sample Evaluation

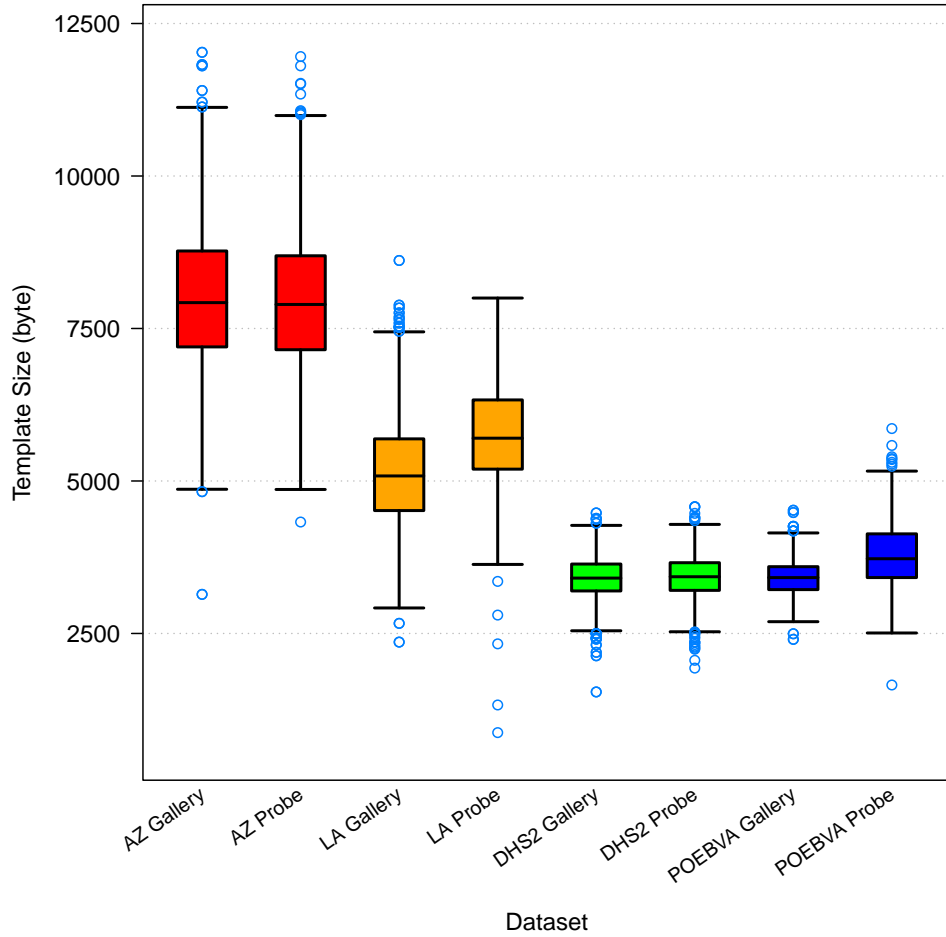


Figure 1: 1K Sample Evaluation – Template Size Distribution

	AZ		LA		DHS2		POEBVA	
	Gallery	Probe	Gallery	Probe	Gallery	Probe	Gallery	Probe
<i>Dimensions</i>	800x800	800x800	412x1000	400x776	368x368	368x368	500x500	368x368
<i>Maximum</i>	12028	11958	8615	7999	4477	4580	4521	5860
75%	8770.5	8692	5690.5	6329	3638	3660	3595	4133
<i>Median</i>	7924	7894	5082.5	5701.5	3408	3430	3416	3725
25%	7198	7152	4515	5194	3197	3206.5	3219	3416.5
<i>Minimum</i>	3141	4327	2359	875	1542	1933	2404	1656

Table 1: Sample Dataset — Template Size Distribution

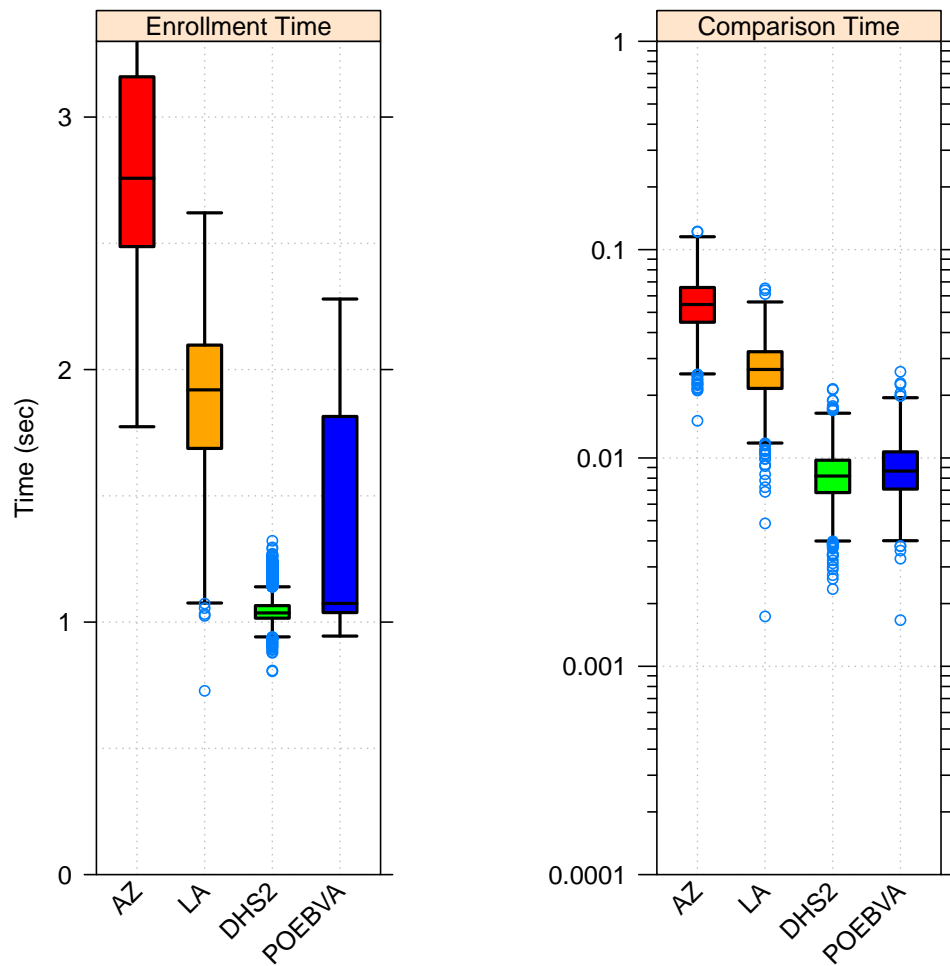


Figure 2: 1K Sample Evaluation – Enrollment and Comparison Timing

	AZ	LA	DHS2	POEBVA
<i>Maximum</i>	4.204	2.621	1.322	2.279
<i>75%</i>	3.160	2.097	1.065	1.814
<i>Median</i>	2.758	1.920	1.036	1.074
<i>25%</i>	2.487	1.688	1.016	1.038
<i>Minimum</i>	1.774	0.728	0.805	0.945

Table 2: Enrollment Times (sec)

	AZ	LA	DHS2	POEBVA
<i>Maximum</i>	0.122	0.065	0.021	0.026
<i>75%</i>	0.066	0.032	0.010	0.011
<i>Median</i>	0.055	0.027	0.008	0.009
<i>25%</i>	0.045	0.022	0.007	0.007
<i>Minimum</i>	0.015	0.002	0.002	0.002

Table 3: Comparison Times (sec)

2 Full Evaluation

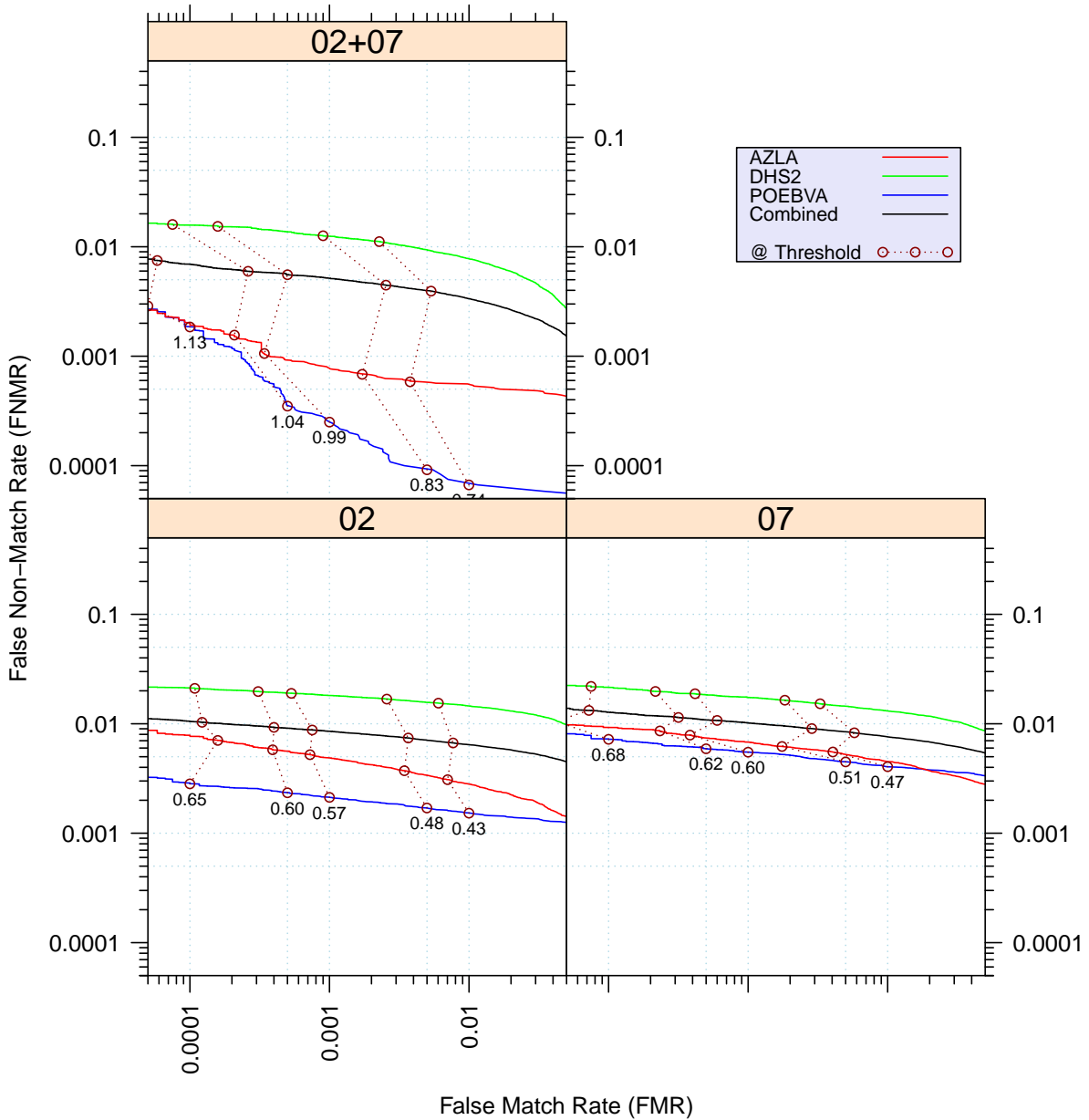


Figure 3: Full Evaluation – DET for POEBVA, DHS2, AZLA, and combined from R Index, L Index, and R/L Index

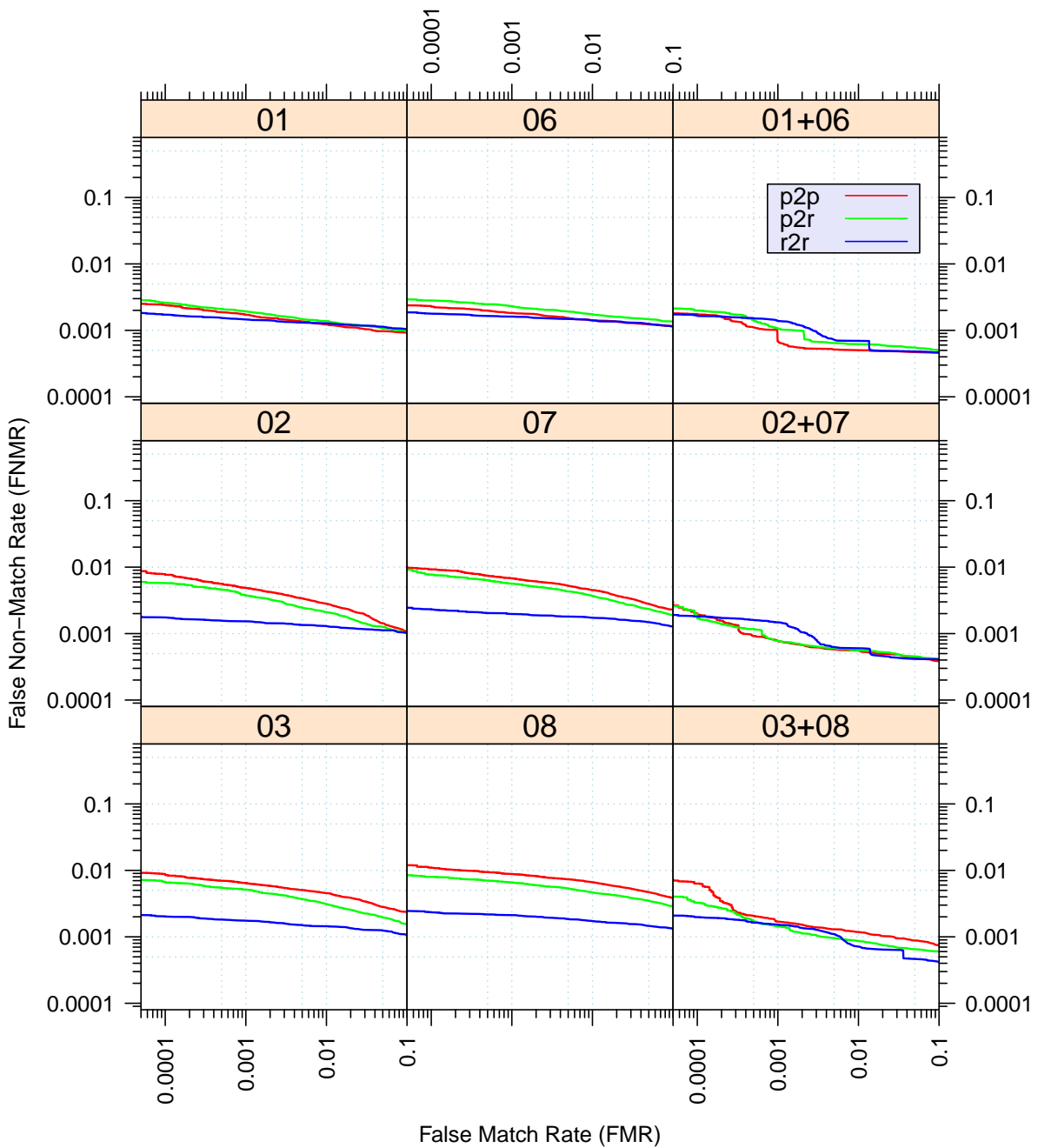


Figure 4: Full Evaluation – DET for all finger positions from AZLA

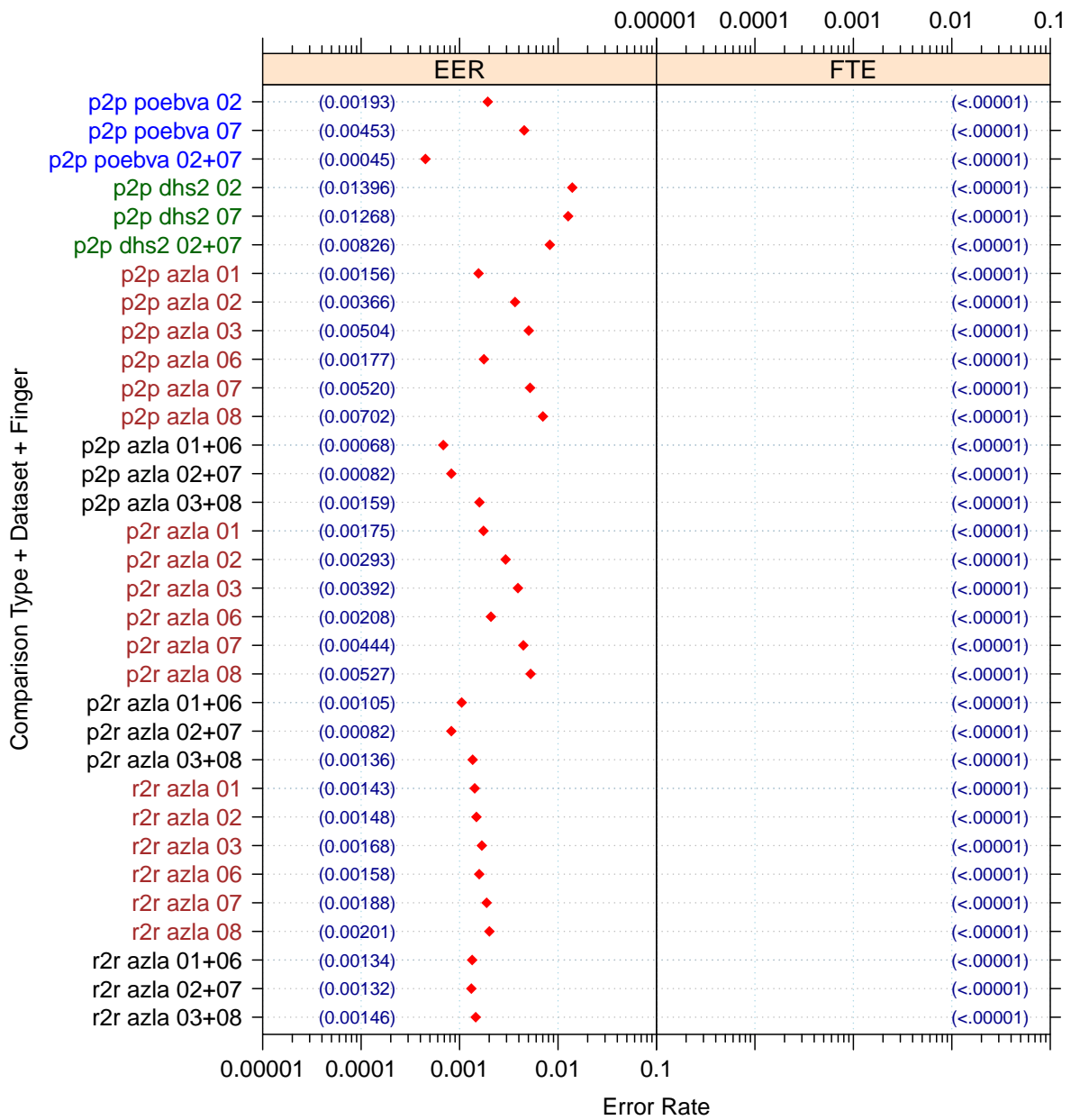


Figure 5: Full Evaluation – EERs and FTEs

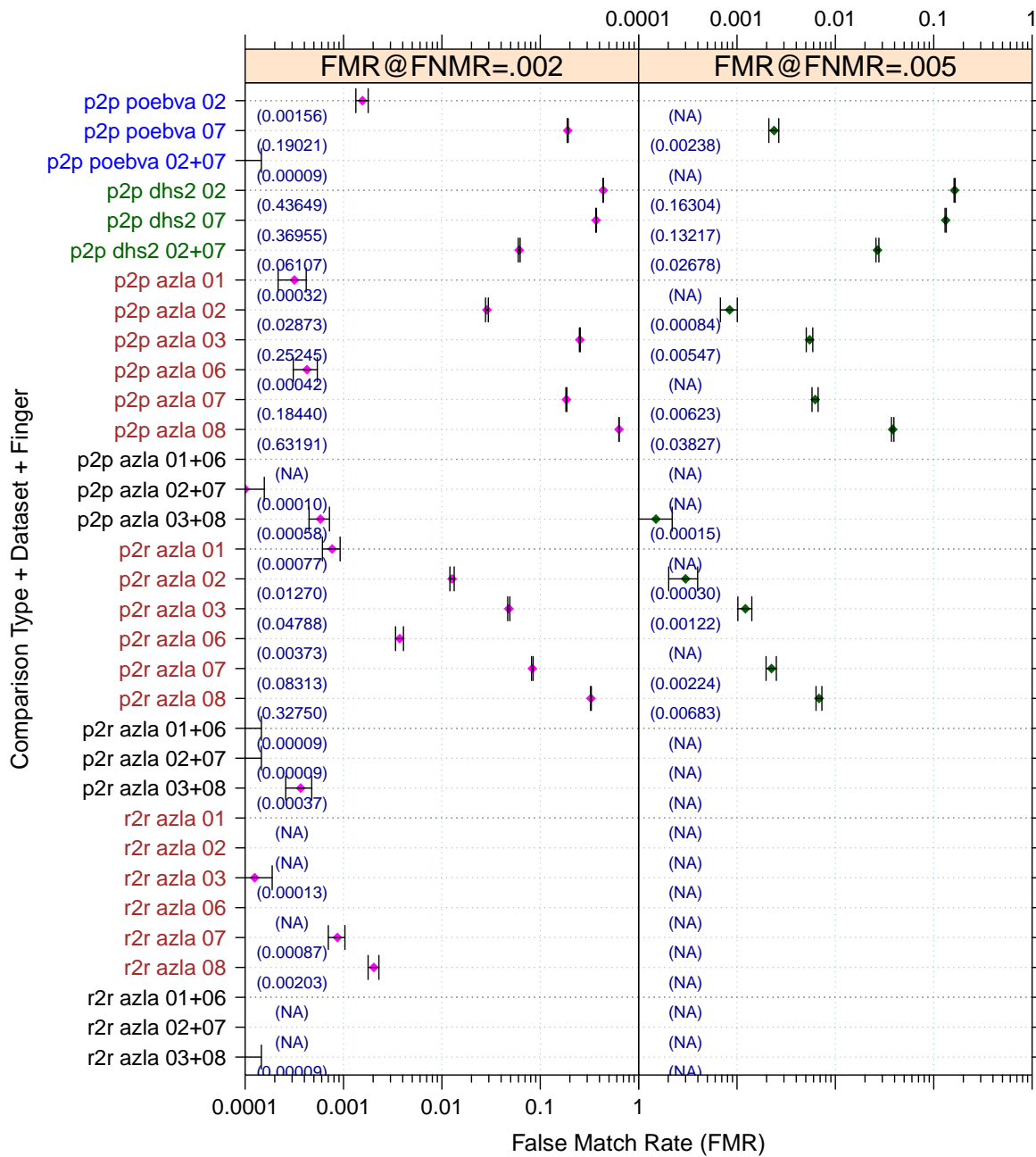


Figure 6: Full Evaluation – FMR@FNMR = (0.002, 0.005) and 95% Confidence Intervals

Note: “n/a” indicates that the value could not be reliably measured with the available sample size.

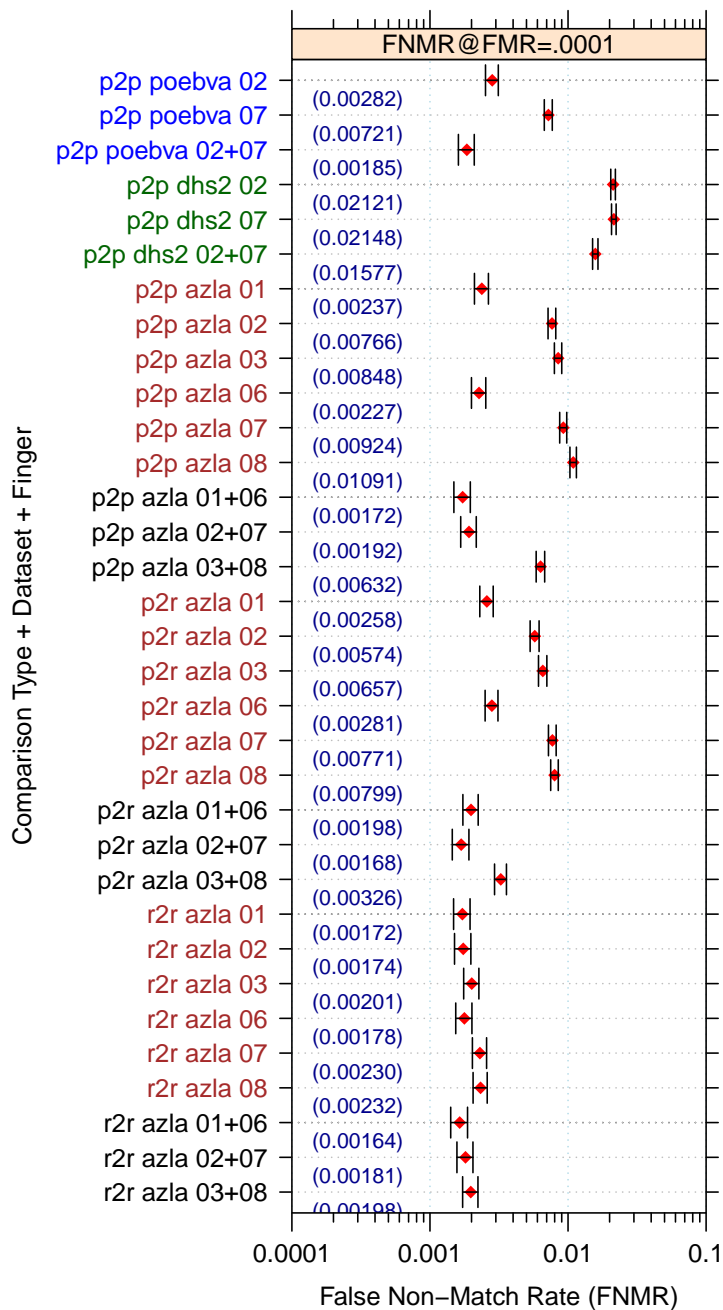


Figure 7: Full Evaluation – FNMR@FMR = 0.0001 and 95% Confidence Intervals

Note: “n/a” indicates that the value could not be reliably measured with the available sample size.

		EER	FTE Rate
Plain to Plain	<i>R Thumb</i>	0.0016	0.0000
	<i>R Index</i>	0.0037	0.0000
	<i>R Middle</i>	0.0050	0.0000
	<i>L Thumb</i>	0.0018	0.0000
	<i>L Index</i>	0.0052	0.0000
	<i>L Middle</i>	0.0070	0.0000
	<i>R/L Thumb</i>	0.0007	0.0000
	<i>R/L Index</i>	0.0008	0.0000
	<i>R/L Middle</i>	0.0016	0.0000
Plain to Rolled	<i>R Thumb</i>	0.0018	0.0000
	<i>R Index</i>	0.0029	0.0000
	<i>R Middle</i>	0.0039	0.0000
	<i>L Thumb</i>	0.0021	0.0000
	<i>L Index</i>	0.0044	0.0000
	<i>L Middle</i>	0.0053	0.0000
	<i>R/L Thumb</i>	0.0010	0.0000
	<i>R/L Index</i>	0.0008	0.0000
	<i>R/L Middle</i>	0.0014	0.0000
Rolled to Rolled	<i>R Thumb</i>	0.0014	0.0000
	<i>R Index</i>	0.0015	0.0000
	<i>R Middle</i>	0.0017	0.0000
	<i>L Thumb</i>	0.0016	0.0000
	<i>L Index</i>	0.0019	0.0000
	<i>L Middle</i>	0.0020	0.0000
	<i>R/L Thumb</i>	0.0013	0.0000
	<i>R/L Index</i>	0.0013	0.0000
	<i>R/L Middle</i>	0.0015	0.0000

Table 4: EER and FTE — Dataset AZLA

		EER	FTE Rate
<i>R Index</i>	0.0140	0.0000	
<i>L Index</i>	0.0127	0.0000	
<i>R/L Index</i>	0.0083	0.0000	

Table 5: EER and FTE — Dataset DHS2

		EER	FTE Rate
<i>R Index</i>	0.0019	0.0000	
<i>L Index</i>	0.0045	0.0000	
<i>R/L Index</i>	0.0004	0.0000	

Table 6: EER and FTE — Dataset POEBVA

		FNMR@FMR = 0.0001	FMR@FNMR = 0.002	FMR@FNMR = 0.005
Plain to Plain	<i>R Thumb</i>	0.0024 ±0.00028	0.0003 ±0.00010	n/a
	<i>R Index</i>	0.0077 ±0.00049	0.0287 ±0.00094	0.0008 ±0.00016
	<i>R Middle</i>	0.0085 ±0.00052	0.2525 ±0.00246	0.0055 ±0.00042
	<i>L Thumb</i>	0.0023 ±0.00027	0.0004 ±0.00012	n/a
	<i>L Index</i>	0.0092 ±0.00054	0.1844 ±0.00219	0.0062 ±0.00044
	<i>L Middle</i>	0.0109 ±0.00059	0.6319 ±0.00273	0.0383 ±0.00109
	<i>R/L Thumb</i>	0.0017 ±0.00023	n/a	n/a
	<i>R/L Index</i>	0.0019 ±0.00025	0.0001 ±0.00006	n/a
	<i>R/L Middle</i>	0.0063 ±0.00045	0.0006 ±0.00014	0.0001 ±0.00007
Plain to Rolled	<i>R Thumb</i>	0.0026 ±0.00029	0.0008 ±0.00016	n/a
	<i>R Index</i>	0.0057 ±0.00043	0.0127 ±0.00063	0.0003 ±0.00010
	<i>R Middle</i>	0.0066 ±0.00046	0.0479 ±0.00121	0.0012 ±0.00020
	<i>L Thumb</i>	0.0028 ±0.00030	0.0037 ±0.00034	n/a
	<i>L Index</i>	0.0077 ±0.00049	0.0831 ±0.00156	0.0022 ±0.00027
	<i>L Middle</i>	0.0080 ±0.00050	0.3275 ±0.00265	0.0068 ±0.00047
	<i>R/L Thumb</i>	0.0020 ±0.00025	0.0001 ±0.00005	n/a
	<i>R/L Index</i>	0.0017 ±0.00023	0.0001 ±0.00005	n/a
	<i>R/L Middle</i>	0.0033 ±0.00032	0.0004 ±0.00011	n/a
Rolled to Rolled	<i>R Thumb</i>	0.0017 ±0.00023	n/a	n/a
	<i>R Index</i>	0.0017 ±0.00024	n/a	n/a
	<i>R Middle</i>	0.0020 ±0.00025	0.0001 ±0.00006	n/a
	<i>L Thumb</i>	0.0018 ±0.00024	n/a	n/a
	<i>L Index</i>	0.0023 ±0.00027	0.0009 ±0.00017	n/a
	<i>L Middle</i>	0.0023 ±0.00027	0.0020 ±0.00026	n/a
	<i>R/L Thumb</i>	0.0016 ±0.00023	n/a	n/a
	<i>R/L Index</i>	0.0018 ±0.00024	n/a	n/a
	<i>R/L Middle</i>	0.0020 ±0.00025	0.0001 ±0.00005	n/a

Table 7: Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset AZLA

Note: “n/a” indicates that the value could not be reliably measured with the available sample size.

	FNMR@FMR = 0.0001	FMR@FNMR = 0.002	FMR@FNMR = 0.005
<i>R Index</i>	0.0212 ±0.00081	0.4365 ±0.00281	0.1630 ±0.00209
<i>L Index</i>	0.0215 ±0.00082	0.3695 ±0.00273	0.1322 ±0.00192
<i>R/L Index</i>	0.0158 ±0.00071	0.0611 ±0.00136	0.0268 ±0.00091

Table 8: Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset DHS2

	FNMR@FMR = 0.0001	FMR@FNMR = 0.002	FMR@FNMR = 0.005
<i>R Index</i>	0.0028 ±0.00030	0.0016 ±0.00022	n/a
<i>L Index</i>	0.0072 ±0.00048	0.1902 ±0.00222	0.0024 ±0.00028
<i>R/L Index</i>	0.0019 ±0.00024	0.0001 ±0.00005	n/a

Table 9: Details for FNMR@FMR = 0.0001 and FMR@FNMR = (0.002, 0.005) — Dataset POEBVA

Note: “n/a” indicates that the value could not be reliably measured with the available sample size.

3 Original PFT Dataset

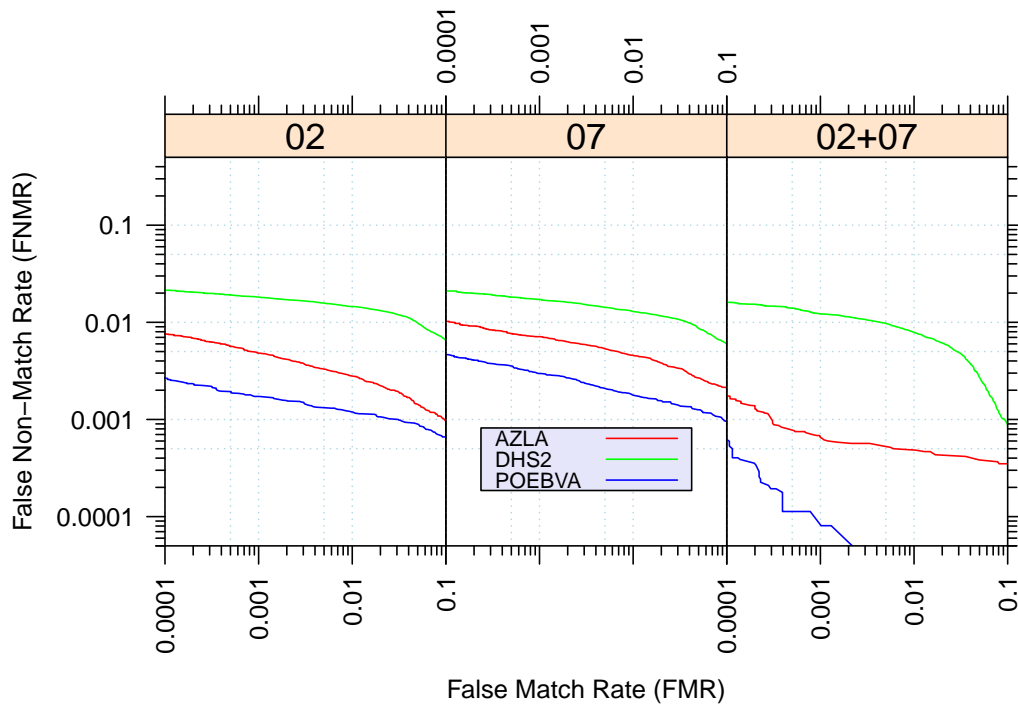


Figure 8: Original PFT Dataset – DET

		EER	FNMR@FMR = 0.0001	FMR@FNMR = 0.005
AZLA	<i>R Index</i>	0.0035	0.0076	0.0008
	<i>L Index</i>	0.0053	0.0102	0.0068
	<i>R/L Index</i>	0.0007	0.0018	n/a
DHS2	<i>R Index</i>	0.0140	0.0214	0.1560
	<i>L Index</i>	0.0125	0.0211	0.1339
	<i>R/L Index</i>	0.0084	0.0161	0.0286
POEBVA	<i>R Index</i>	0.0016	0.0027	n/a
	<i>L Index</i>	0.0025	0.0046	n/a
	<i>R/L Index</i>	0.0002	0.0006	n/a

Table 10: Details for EER, FNMR@FMR = 0.0001, and FMR@FNMR = 0.005 — Original PFT Dataset

Note: “n/a” indicates that the value could not be reliably measured with the available sample size.