ON THE EXPLOITATION OF DCT-TRACES IN THE GENERATIVE-AI DOMAIN SUPPLEMENTARY MATERIAL

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In this supplementary material, all details concerning the experiments conducted are set out. We initially explain the sets calculated using the Explanable AI (XAI) LIME algorithm as described in Section 4.3 of the main paper. In detail we have:

$$\text{POS-LIME} = \{\beta_i^{AC} \quad \forall i \in \text{idx}_{\text{POS-LIME}}\}$$
$$\text{ABS-LIME} = \{\beta_i^{AC} \quad \forall i \in \text{idx}_{\text{ABS-LIME}}\}$$

where $\text{idx}_{\text{POS-LIME}}$ and $\text{idx}_{\text{ABS-LIME}}$ are the sets of coefficient indices belonging to the POS-LIME and ABS-LIME sets respectively. In detail we have:

$$\text{idx}_{\text{POS-LIME}} = \{1, 2, 3, 6, 9, 11, 17, 18, 20, 24, 26, 28, 29, 30, 32, 34, 35, 36, 38, 40, 42, 43, 45, 48, 49, 51, 53, 54, 56, 57, 58, 60, 61, 62, 63\}$$

$$\text{idx}_{\text{ABS-LIME}} = \{1, 2, 3, 4, 5, 6, 9, 10, 15, 16, 17, 18, 19, 23, 25, 26, 27, 28, 31, 35, 36, 37, 39, 40, 41, 42, 48, 49, 54, 57, 63\}.$$

Table 1 illustrates all the experiments described in Section 5. For each experiment, the table shows the Accuracy and F1-Score percentages achieved in the test phase by three machine learning models (K-NN, Random Forest and Gradient Boosting), trained on RAW image data. Specifically, the 'RAW' column presents metrics for tests conducted on RAW images, while the 'JPEG Compression Test' column shows results for images compressed to various quality factors (QF): 90, 70, 50, 30. Each row of the table explicitly lists the subset of coefficients β^{AC} used to train the models. The row β_{ALL}^{AC} indicates the test with all the coefficients β^{AC}, while the rows $\beta_{i:j}^{AC}$ specify the range of subsets $\left[\beta_i^{AC}, \beta_j^{AC}\right]$. Furthermore, $\beta_{POS-LIME}^{AC}$ and $\beta_{ABS-LIME}^{AC}$ represent the subsets generated by the LIME algorithm.

Explerimental results indicates that ensemble classifiers, which use the subsets of coefficients identified by LIME, performed most favourably in RAW images. As illustrated in the Table 1, it is evident that models trained with the subset $\beta_{POS-LIME}^{AC}$, despite containing only half of the coefficients, perform as well or better than those trained with the full set of coefficients. In particular, in RAW images, the latter coefficients, which correspond to higher image frequencies, show greater discriminatory ability. This observation supports our initial hypothesis that the hierarchical arrangement of the β^{AC} coefficients can be exploited by decision tree-based classifiers to effectively distinguish the nature of the image.

However, when examining the outcomes of the robustness tests, particularly with average JPEG compression, it becomes apparent that ensemble methods rooted in decision trees no longer possess the capability to distinguish the essence of digital images, meaning the discriminative trace disappears. Conversely, the K-NN model, despite beginning with a lower precision, shows greater resilience to compression-induced distortions. Additionally, while the initial coefficients exhibit greater discrimination in compressed images, K-NN effectively preserves the majority of the discriminative information found in the ABS-LIME subset, even under severe image compression.

Summarizing, our findings suggest that the detection of intrinsic signatures in generative models is effectively conducted at lower frequencies, employing models based on distance metrics. This method enables the identification of a distinct and discriminative fingerprint that serves to classify the nature of digital images and remains resilient even in the face of intense compression.

Acc/F1 (%)	K-NN					RANDOM FOREST					GRADIENT BOOSTING				
		JPEG Compression Test					*JPEG Compression Test*					*JPEG Compression Test*			
	RAW	**QF90**	**QF70**	**QF50**	**QF30**	**RAW**	**QF90**	**QF70**	**QF50**	**QF30**	**RAW**	**QF90**	**QF70**	**QF50**	**QF30**
β^{AC}_{ALL}	68.76/66.05	68.45/65.65	64.34/61.53	56.46/53.55	47.78/45.47	79.59/77.81	41.75/39.58	33.30/30.23	29.54/26.81	29.44/26.37	82.57/80.81	44.68/44.08	35.10/32.84	32.22/29.26	30.58/26.93
$\beta^{AC}_{1:2}$	43.45/42.13	44.02/42.63	43.62/42.29	43.67/42.26	43.38/42.02	45.97/44.91	46.12/45.07	46.15/45.09	46.1/45.03	45.87/44.83	45.88/44.77	45.71/44.62	46.1/44.92	46.12/44.98	46.06/44.81
$\beta^{AC}_{1:3}$	46.47/44.92	46.69/45.11	46.71/45.2	46.44/44.91	46.43/44.99	50.39/48.74	50.46/48.83	50.54/48.93	50.46/48.89	50.05/48.55	50.23/48.5	50.3/48.6	50.6/48.98	50.28/48.66	49.87/48.29
$\beta^{AC}_{1:4}$	48.56/46.78	48.27/46.52	48.57/46.76	48.95/47.16	47.96/46.25	51.53/50.01	51.38/49.91	51.49/49.99	51.51/50.0	51.21/49.82	50.93/49.34	50.99/49.43	51.07/49.55	50.99/49.55	50.65/49.27
$\beta^{AC}_{1:5}$	49.53/47.87	49.7/48.08	49.65/47.99	49.54/47.89	49.65/47.93	51.6/50.18	51.65/50.33	51.52/50.19	51.46/50.13	51.56/50.32	52.55/50.94	52.57/50.95	52.58/51.05	51.95/50.42	52.07/50.56
$\beta^{AC}_{1:6}$	52.95/51.19	53.04/51.31	52.95/51.24	52.77/51.12	52.48/50.82	55.75/54.32	55.74/54.35	55.52/54.13	55.58/54.24	55.42/54.23	55.61/54.13	55.71/54.28	55.64/54.22	55.33/53.96	55.14/53.94
$\beta^{AC}_{1:7}$	54.64/52.55	54.45/52.42	54.17/52.22	54.22/52.36	53.41/51.59	56.66/55.11	56.82/55.3	56.62/55.1	56.22/54.78	55.82/54.48	56.71/55.12	56.64/55.04	56.78/55.2	56.55/55.07	55.83/54.47
$\beta^{AC}_{1:8}$	54.14/52.13	54.35/52.36	54.13/52.21	54.08/52.17	53.48/51.67	57.46/55.82	57.25/55.64	57.24/55.67	56.98/55.46	56.37/54.98	57.53/55.98	57.37/55.84	57.38/55.85	57.12/55.65	56.14/54.83
$\beta^{AC}_{1:9}$	55.31/53.27	55.21/53.22	55.06/53.03	55.08/53.12	54.99/53.12	58.65/56.9	58.68/56.99	58.39/56.77	58.53/56.98	57.93/56.46	58.63/57.07	58.41/56.86	58.38/56.86	58.0/56.51	57.45/56.09
$\beta^{AC}_{1:10}$	58.7/56.3	58.57/56.22	58.36/56.12	58.07/55.76	57.79/55.46	61.99/60.1	61.82/59.96	61.59/59.74	61.81/59.95	61.79/59.81	62.1/60.19	62.07/60.2	62.02/60.18	61.93/60.02	61.84/59.84
$\beta^{AC}_{1:11}$	58.82/56.49	58.62/56.31	58.22/55.98	57.91/55.66	57.8/55.55	62.73/60.75	62.69/60.79	62.51/60.58	62.17/60.17	62.54/60.46	62.77/60.86	62.54/60.68	62.51/60.58	62.23/60.3	62.54/60.53
$\beta^{AC}_{1:12}$	58.73/56.5	58.62/56.43	58.11/56.02	58.04/55.88	58.26/56.08	62.85/60.89	62.82/60.91	62.42/60.47	62.58/60.59	62.27/60.21	62.56/60.61	62.47/60.58	62.3/60.4	62.05/60.14	62.62/60.67
$\beta^{AC}_{1:13}$	59.17/56.85	59.03/56.79	58.63/56.5	58.3/56.13	58.01/55.77	62.98/60.85	62.8/60.66	62.65/60.57	62.33/60.18	62.22/60.05	63.15/61.15	62.88/60.9	63.06/61.14	62.8/60.81	62.75/60.76
$\beta^{AC}_{1:14}$	60.07/57.74	59.88/57.59	59.46/57.33	59.21/56.96	59.51/57.17	63.88/61.75	64.01/61.94	63.8/61.73	63.05/60.87	62.23/60.18	64.27/62.24	64.13/62.11	63.97/61.97	63.57/61.51	62.89/60.89
$\beta^{AC}_{1:15}$	61.31/58.88	61.33/58.95	61.12/58.66	61.3/58.69	61.23/58.41	65.17/62.93	65.25/63.16	63.0/61.08	58.56/57.28	51.58/51.51	65.41/63.29	65.22/63.22	63.6/61.61	60.75/59.17	53.5/53.36
$\beta^{AC}_{1:16}$	62.07/59.56	61.51/59.08	61.68/59.21	61.87/59.31	61.6/58.76	65.89/63.67	65.75/63.61	63.71/61.71	60.05/58.5	53.05/52.69	66.47/64.23	66.65/64.52	64.53/62.55	60.9/59.37	52.91/52.89
$\beta^{AC}_{1:17}$	61.74/59.26	61.71/59.29	61.69/59.19	61.64/59.08	61.71/59.02	65.94/63.73	65.92/63.76	63.89/61.94	59.9/58.49	52.22/51.97	66.5/64.34	66.35/64.23	64.34/62.34	60.82/59.32	52.9/52.73
$\beta^{AC}_{1:18}$	62.14/59.63	61.8/59.36	61.68/59.26	61.76/59.23	61.76/58.96	66.24/63.94	66.24/64.03	63.82/61.8	60.13/58.64	52.04/51.72	66.48/64.29	66.44/64.34	64.69/62.7	61.66/60.15	53.62/53.47
$\beta^{AC}_{1:19}$	62.54/60.03	62.41/59.94	62.26/59.76	62.17/59.56	62.56/59.72	66.68/64.49	66.38/64.29	64.35/62.44	60.7/59.29	52.96/52.73	67.05/64.89	66.57/64.46	64.92/63.06	61.05/59.66	53.29/53.17
$\beta^{AC}_{1:20}$	62.57/60.05	62.57/60.06	62.62/60.13	62.68/60.08	62.5/59.54	66.89/64.75	66.58/64.48	64.34/62.32	60.73/59.28	52.35/52.2	67.51/65.44	67.1/65.09	65.58/63.74	61.83/60.4	53.46/53.49
$\beta^{AC}_{1:21}$	63.1/60.54	62.88/60.35	62.65/60.08	62.66/59.9	62.44/59.39	67.9/65.84	67.31/65.32	61.16/59.92	52.12/51.81	40.72/40.94	69.22/67.23	68.17/66.35	59.85/59.07	50.71/50.69	40.21/40.48
$\beta^{AC}_{1:22}$	63.0/60.4	63.11/60.59	63.1/60.57	62.75/59.9	62.63/59.61	68.19/66.13	67.55/65.57	61.54/60.34	51.96/51.73	40.17/40.4	69.14/67.17	68.19/66.3	61.87/60.8	52.44/52.3	40.86/41.28
$\beta^{AC}_{1:23}$	63.19/60.57	63.3/60.78	63.25/60.69	62.91/59.98	62.56/59.52	68.11/66.08	67.58/65.57	61.88/60.62	52.61/52.25	40.52/41.0	69.56/67.61	68.57/66.77	60.82/60.06	52.12/52.14	40.47/41.28
$\beta^{AC}_{1:24}$	63.56/60.92	63.39/60.81	63.44/60.89	63.18/60.24	62.85/59.84	68.56/66.49	67.78/65.83	62.16/60.9	53.05/52.73	40.77/41.34	69.82/67.83	68.79/66.94	60.92/60.18	52.13/52.09	40.51/41.3
$\beta^{AC}_{1:25}$	63.68/61.07	63.57/61.01	63.6/61.03	63.5/60.59	63.01/60.08	69.03/66.99	68.11/66.18	62.47/61.23	53.31/52.98	40.47/41.13	70.27/68.34	69.45/67.65	61.88/61.02	53.02/53.07	40.65/41.76
$\beta^{AC}_{1:26}$	63.84/61.24	63.66/61.14	63.47/60.83	63.43/60.42	62.04/58.96	69.02/67.05	67.48/65.64	58.41/57.56	48.52/48.56	37.23/37.2	70.44/68.5	69.27/67.37	59.89/59.27	49.4/49.76	37.35/37.14
$\beta^{AC}_{1:27}$	64.34/61.7	64.11/61.56	64.0/61.36	63.52/60.4	61.69/58.62	68.98/66.88	67.9/65.86	61.0/59.9	49.97/49.92	37.43/37.52	70.82/68.85	69.34/67.46	60.27/59.67	48.89/49.28	37.41/37.38
$\beta^{AC}_{1:28}$	64.56/61.87	64.61/62.02	63.82/61.22	63.16/60.13	61.43/58.60	71.13/69.11	69.32/67.42	56.34/55.64	43.63/43.44	34.58/33.94	72.33/70.32	70.86/68.83	57.63/57.09	43.71/44.07	35.01/34.58
$\beta^{AC}_{1:29}$	64.96/62.30	64.86/62.31	63.82/61.26	63.22/60.25	61.17/58.31	71.18/69.18	69.49/67.54	54.91/54.27	41.19/40.80	32.84/31.85	73.03/70.99	71.38/69.30	56.56/56.26	41.49/41.69	33.35/31.91
$\beta^{AC}_{1:30}$	64.80/62.16	64.66/62.12	64.08/61.44	63.17/60.14	60.35/57.39	71.78/69.84	69.67/67.81	54.11/53.55	40.33/39.97	32.39/31.31	73.29/71.25	71.84/69.82	56.23/56.00	41.37/41.75	33.02/31.41
$\beta^{AC}_{16:46}$	69.62/67.08	67.70/65.41	48.09/48.22	32.25/31.78	24.78/23.57	74.10/72.12	53.42/53.20	34.35/31.93	28.54/25.19	29.32/22.98	76.71/74.66	53.31/53.47	36.21/33.96	31.10/26.90	29.68/22.54
$\beta^{AC}_{17:45}$	70.21/67.55	67.86/65.50	47.13/47.40	31.84/31.30	24.00/22.75	74.44/72.45	50.71/50.58	34.28/31.74	29.52/25.50	29.15/21.32	76.49/74.39	53.89/54.01	36.12/33.79	31.32/27.12	29.69/22.58
$\beta^{AC}_{18:44}$	69.65/66.76	66.51/64.10	45.23/45.55	30.42/29.69	23.74/22.25	73.93/71.85	51.46/51.36	33.98/31.52	29.22/25.49	28.83/21.22	76.06/74.00	54.79/54.84	35.51/33.04	31.41/27.50	29.66/23.16
$\beta^{AC}_{19:43}$	69.17/66.42	66.26/64.05	45.38/45.64	30.68/30.01	23.79/22.35	73.34/71.22	60.56/59.83	35.72/33.81	29.25/26.32	28.73/22.46	75.59/73.27	60.91/60.37	36.76/34.91	30.94/27.67	29.59/23.97
$\beta^{AC}_{20:42}$	69.68/67.07	66.38/64.22	44.59/44.83	30.6/29.89	23.87/22.58	73.17/71.01	60.99/60.15	36.49/34.86	29.06/26.52	28.46/23.69	75.6/73.29	61.66/60.98	36.56/34.61	30.99/27.81	29.44/23.99
$\beta^{AC}_{21:41}$	68.92/66.27	65.6/63.48	44.63/44.79	30.15/29.56	23.71/22.43	72.54/70.4	60.91/60.07	37.37/36.09	28.79/26.43	27.98/22.93	74.45/72.15	59.95/59.26	36.19/34.46	30.98/28.0	28.8/23.31
$\beta^{AC}_{22:40}$	68.51/65.86	65.25/63.1	44.46/44.57	29.83/29.29	23.55/22.32	72.09/70.05	59.68/58.98	36.39/35.02	27.79/25.72	27.29/22.44	73.43/71.23	59.39/58.78	36.16/34.61	30.08/27.6	28.55/23.3
$\beta^{AC}_{23:39}$	68.47/65.78	65.78/63.56	44.68/44.75	30.3/29.94	24.07/22.97	71.91/69.9	57.55/57.0	35.01/33.32	28.13/25.89	27.37/21.71	73.16/70.92	59.12/58.51	35.83/34.27	30.05/27.67	28.68/23.7
$\beta^{AC}_{24:38}$	68.11/65.4	65.11/62.75	45.16/45.31	31.81/31.5	24.57/23.67	71.2/69.12	58.38/57.71	36.18/35.03	28.46/26.65	27.37/22.83	71.86/69.61	59.38/58.66	36.69/35.72	29.77/27.83	28.6/24.87
$\beta^{AC}_{25:37}$	67.01/64.27	64.58/62.38	42.38/42.76	30.72/30.11	25.14/23.91	70.25/68.21	57.54/56.99	36.4/35.09	28.65/26.49	28.01/24.66	71.11/68.98	58.15/57.6	36.03/34.73	29.5/27.12	29.13/25.46
$\beta^{AC}_{26:36}$	66.45/63.85	63.09/60.99	41.49/42.04	31.24/30.76	24.82/23.86	69.16/67.04	56.58/56.11	35.85/34.62	28.05/26.09	28.04/24.98	70.21/67.93	57.12/56.61	36.21/35.13	29.1/26.88	29.06/25.39
$\beta^{AC}_{27:35}$	64.55/61.58	61.26/59.15	40.05/40.27	30.35/29.26	24.49/23.04	67.58/65.35	53.66/53.35	34.05/32.76	28.14/25.96	28.13/24.49	67.99/65.78	53.38/53.13	33.91/32.61	28.46/26.16	28.42/24.38
$\beta^{AC}_{28:34}$	62.12/59.14	59.93/57.45	44.43/43.73	32.31/31.41	26.2/24.95	63.75/61.14	58.06/56.57	39.91/38.97	30.25/28.52	27.35/24.58	63.83/61.23	58.0/56.57	38.34/37.24	29.82/27.87	28.05/24.66
$\beta^{AC}_{29:33}$	60.3/56.83	55.87/53.17	41.25/40.38	31.43/30.3	26.26/24.73	61.04/57.47	55.98/53.59	39.7/38.63	29.66/27.59	26.71/23.38	60.83/57.37	55.37/53.06	37.99/36.78	28.69/26.32	26.6/22.98
$\beta^{AC}_{30:32}$	55.72/51.27	52.6/49.08	41.18/39.15	32.09/30.24	26.71/25.06	59.07/53.7	55.99/51.36	43.46/39.95	33.97/30.66	27.66/24.49	58.16/53.35	55.22/51.07	42.24/39.37	32.93/30.11	27.31/24.65
$\beta^{AC}_{29:63}$	72.91/70.04	54.56/54.41	31.63/30.68	26.55/24.94	23.51/21.94	80.10/78.19	40.34/37.98	34.28/31.19	31.73/28.47	29.89/25.98	81.73/79.79	42.34/41.02	35.01/32.18	32.65/29.33	30.26/26.02
$\beta^{AC}_{30:63}$	73.08/70.15	54.06/53.90	31.36/30.23	26.14/24.44	23.54/21.81	80.01/78.08	40.44/38.08	34.53/31.43	31.86/28.63	29.90/26.05	81.54/79.60	42.21/40.93	35.09/32.28	32.31/28.89	30.38/26.27
$\beta^{AC}_{31:63}$	73.45/70.56	53.70/53.53	30.77/29.52	26.09/24.43	23.63/21.78	79.73/77.78	40.40/38.03	34.23/31.10	32.02/28.79	29.91/26.28	81.48/79.57	42.25/40.90	34.77/31.89	32.53/29.12	30.17/25.96
$\beta^{AC}_{32:63}$	73.37/70.56	54.17/53.94	30.42/29.21	26.32/24.71	23.63/21.93	79.81/77.85	40.87/38.67	33.85/30.61	32.43/29.14	29.99/26.44	81.43/79.48	42.78/41.46	34.68/31.61	32.47/29.12	30.31/26.46
$\beta^{AC}_{33:63}$	73.37/70.54	54.2/53.88	30.58/29.25	26.23/24.59	23.75/22.11	79.45/77.43	40.4/38.19	33.81/30.63	31.99/28.77	29.56/26.57	80.93/78.91	42.5/41.09	34.59/31.47	32.4/29.0	30.52/26.67
$\beta^{AC}_{34:63}$	73.16/70.31	54.07/53.53	30.91/29.74	26.46/24.89	24.7/23.14	79.14/77.13	39.99/37.74	34.34/31.01	32.34/28.91	29.5/26.23	81.18/79.19	42.2/40.73	34.51/31.41	32.49/29.08	29.85/26.39
$\beta^{AC}_{35:63}$	72.79/69.91	53.53/52.94	31.07/29.97	26.98/25.4	25.06/23.46	79.38/77.35	40.02/37.66	34.03/30.8	31.99/28.7	29.23/26.42	81.0/78.99	41.03/39.29	34.97/31.88	32.64/29.27	30.23/26.45
$\beta^{AC}_{36:63}$	73.53/70.66	53.0/52.56	30.34/29.08	27.68/26.25	25.17/23.62	79.2/77.11	40.03/37.75	34.08/30.83	32.42/29.12	28.81/26.17	80.67/78.6	41.49/39.88	34.6/31.52	32.84/29.4	29.81/26.47
$\beta^{AC}_{37:63}$	73.71/70.88	50.45/50.07	30.11/28.85	27.48/25.92	25.57/23.52	79.36/77.31	39.86/37.49	33.97/30.77	32.44/29.06	29.25/26.57	80.9/78.84	40.99/39.17	34.81/31.77	32.89/29.22	30.09/25.9
$\beta^{AC}_{38:63}$	73.78/70.82	49.3/48.7	30.31/29.09	28.0/26.29	26.29/23.93	79.52/77.42	39.84/37.45	34.33/31.08	32.55/29.21	29.3/26.72	80.92/78.83	41.2/39.44	34.86/31.66	33.62/30.09	30.29/26.47
$\beta^{AC}_{39:63}$	73.68/70.94	50.54/50.08	31.05/29.87	28.4/26.95	26.35/24.35	79.2/77.13	39.35/36.99	33.85/30.71	32.23/28.82	28.87/26.47	80.61/78.52	41.02/39.33	35.04/32.14	33.37/29.7	30.24/26.62
$\beta^{AC}_{40:63}$	73.49/70.7	46.89/46.58	30.1/28.72	27.77/26.03	25.84/23.85	79.15/77.05	39.2/36.79	33.78/30.75	32.44/29.52	27.76/25.87	80.18/78.13	40.63/38.89	34.6/31.86	33.14/30.19	29.52/26.4
$\beta^{AC}_{41:63}$	72.92/69.97	45.2/44.8	29.79/28.3	27.13/25.36	25.49/23.62	78.39/76.13	38.5/36.09	33.18/30.2	32.6/29.47	27.47/25.66	79.14/76.94	39.09/37.17	34.25/31.47	32.64/29.52	29.54/26.06
$\beta^{AC}_{42:63}$	72.76/69.74	44.81/44.41	28.89/27.46	27.23/25.4	25.65/23.5	77.85/75.52	37.91/35.44	33.05/30.2	32.01/28.9	27.62/25.64	79.39/77.13	39.9/38.13	34.0/31.49	32.51/29.3	29.4/26.33
$\beta^{AC}_{43:63}$	72.77/69.86	43.27/42.82	28.91/27.52	27.45/25.94	26.47/24.21	78.46/76.16	37.98/35.58	32.92/30.34	31.76/28.97	26.96/25.15	79.38/77.17	38.96/37.06	34.2/31.78	32.76/29.8	28.89/25.73
$\beta^{AC}_{44:63}$	73.25/70.35	43.29/42.79	28.89/27.63	27.02/25.58	25.9/24.21	78.12/75.76	37.66/35.28	33.49/31.04	31.94/29.15	26.09/24.57	79.05/76.81	38.23/36.19	34.0/31.63	32.6/29.5	28.19/25.37
$\beta^{AC}_{45:63}$	73.7/70.78	42.49/41.81	29.48/28.26	27.99/26.13	26.57/24.54	78.0/75.6	37.24/34.87	33.26/30.67	32.22/28.77	26.04/24.61	78.5/76.18	37.17/34.86	33.66/31.15	32.41/29.17	28.18/25.26
$\beta^{AC}_{46:63}$	73.02/70.2	42.89/42.17	29.22/27.96	27.6/25.91	27.38/25.39	77.61/75.27	37.19/34.81	32.42/29.87	31.83/28.52	25.71/24.3	78.33/76.02	37.27/35.01	33.62/31.28	31.86/28.75	28.07/25.28
$\beta^{AC}_{47:63}$	73.3/70.3	40.42/39.65	28.65/27.32	28.76/26.32	27.06/24.6	77.08/74.59	36.66/34.09	32.43/30.1	30.0/26.92	25.14/24.05	78.18/75.83	36.75/34.13	33.28/30.8	31.88/28.56	27.59/25.05
$\beta^{AC}_{48:63}$	73.08/70.1	37.86/37.06	28.23/27.11	28.3/25.92	26.57/24.55	76.6/74.07	35.74/32.94	31.94/29.45	30.13/26.99	24.4/23.36	77.3/74.91	35.67/32.82	32.47/29.84	30.85/27.62	26.79/24.72
$\beta^{AC}_{49:63}$	73.01/70.04	36.74/35.72	27.73/26.49	28.32/25.96	26.39/24.13	76.62/74.13	35.02/32.04	31.49/28.84	29.79/26.74	23.74/22.79	76.77/74.32	34.98/31.85	32.81/30.13	30.44/26.87	26.65/24.42
$\beta^{AC}_{50:63}$	72.68/69.63	35.73/34.29	27.7/26.27	29.27/26.74	26.53/24.08	76.71/74.19	34.94/32.08	31.77/29.15	29.8/26.45	24.13/22.92	76.31/73.82	34.89/31.78	32.19/29.36	30.6/26.84	26.64/24.31
$\beta^{AC}_{51:63}$	73.02/70.1	35.2/33.61	27.79/26.39	29.17/26.52	26.82/24.32	76.5/74.05	34.68/31.7	31.38/28.69	29.71/26.31	24.81/23.25	76.28/73.72	34.76/31.68	31.71/28.82	29.82/26.15	26.75/24.63
$\beta^{AC}_{52:63}$	72.75/69.96	35.76/34.12	27.67/26.47	28.23/25.66	26.42/24.34	75.64/73.12	33.98/30.59	31.1/28.39	29.3/26.01	24.62/23.09	75.7/73.22	34.22/30.89	31.57/28.78	29.65/26.28	26.09/23.96
$\beta^{AC}_{53:63}$	72.02/69.03	34.69/33.02	27.77/26.43	28.59/25.82	26.14/23.61	75.6/73.09	33.99/30.85	30.96/28.34	28.18/24.89	25.55/23.8	75.42/73.01	34.02/30.67	31.21/28.4	29.15/25.86	26.42/24.11
$\beta^{AC}_{54:63}$	72.42/69.56	34.31/32.21	27.85/26.18	27.66/26.22	24.53/23.68	75.33/72.74	33.36/30.36	30.4/27.46	26.9/24.44	24.96/24.19	74.92/72.42	33.3/29.95	30.63/27.56	27.68/25.15	25.53/24.66
$\beta^{AC}_{55:63}$	71.37/68.49	33.8/31.64	27.9/25.9	27.0/25.95	23.03/22.82	73.84/71.33	32.26/28.54	30.25/27.21	25.73/23.97	23.53/23.27	73.62/71.11	32.24/28.72	30.9/27.67	26.68/24.6	24.31/23.84
$\beta^{AC}_{56:63}$	71.41/68.62	34.16/31.95	28.62/26.4	25.48/23.75	22.75/22.52	73.85/71.37	32.18/28.5	30.05/26.82	26.34/24.36	23.62/23.21	73.49/70.99	32.38/28.85	30.57/27.2	26.85/24.69	24.32/23.78
$\beta^{AC}_{57:63}$	70.53/67.73	34.77/32.71	29.07/26.6	25.43/23.74	22.16/21.75	72.94/70.49	33.05/29.65	30.34/27.04	26.08/24.25	22.74/22.26	72.85/70.33	32.82/29.41	30.89/27.35	26.76/24.69	23.51/22.93
$\beta^{AC}_{58:63}$	70.4/67.39	33.26/31.26	29.32/26.97	27.34/26.31	22.06/21.59	71.44/68.98	32.7/29.15	29.93/26.81	26.12/24.82	21.9/21.17	71.28/68.66	32.1/28.49	30.26/26.76	27.29/25.68	22.75/22.14
$\beta^{AC}_{59:63}$	69.31/66.55	32.52/30.31	28.33/25.88	26.05/25.28	21.58/21.4	70.19/67.67	31.5/27.94	29.29/26.08	26.16/24.97	22.17/21.79	69.83/67.29	31.43/27.54	29.23/25.8	25.98/24.81	21.24/21.0
$\beta^{AC}_{60:63}$	66.8/63.97	31.89/29.46	27.67/25.05	25.42/24.52	21.89/21.55	67.84/65.31	31.52/28.11	28.97/25.87	25.66/24.54	21.73/21.37	67.95/65.43	31.49/27.14	28.68/25.18	26.17/24.97	22.21/21.92
$\beta^{AC}_{61:63}$	64.77/62.03	31.09/28.31	28.02/26.43	23.78/23.75	22.06/21.9	65.84/63.34	31.24/27.5	27.93/25.95	24.38/24.08	22.03/21.86	65.8/63.39	31.05/27.0	27.83/25.65	24.49/24.21	22.11/21.96
$\beta^{AC}_{62:63}$	61.55/58.75	30.24/27.54	25.31/24.51	23.95/24.3	21.7/21.64	63.42/61.04	30.88/27.34	25.87/24.51	24.49/25.02	21.24/21.12	63.29/60.86	30.69/27.12	26.3/24.62	24.98/25.31	21.77/21.69
$\beta^{AC}_{POS-LIME}$	67.74/64.77	67.23/64.22	61.77/59.00	53.24/50.81	44.86/42.87	80.05/78.16	41.92/39.85	33.42/30.25	30.23/27.49	29.02/26.06	82.21/80.34	44.62/43.84	34.72/32.00	31.48/28.62	30.64/27.03
$\beta^{AC}_{ABS-LIME}$	68.07/65.25	67.51/64.64	64.81/61.91	59.89/56.94	53.05/50.30	78.08/76.03	43.54/41.97	32.98/30.04	29.79/27.14	29.46/26.33	80.68/78.68	45.33/44.45	34.49/32.12	31.42/29.06	30.58/27.10

Table 1: Experimental results in detail.