## Appendix A. Evaluation Results

CWRU with the time domain input

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Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COI	RAL	DA	NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean
0-1	Best	100.00	99.91	100.00	99.91	100.00	100.00	100.00	100.00	100.00	99.55	100.00	100.00	100.00	100.00
	Last	99.48	99.12	100.00	99.77	100.00	98.51	100.00	100.00	100.00	96.75	100.00	99.94	100.00	100.00
0-2	Best	99.94	98.73	100.00	99.77	100.00	100.00	100.00	100.00	100.00	97.01	100.00	100.00	100.00	100.00
	Last	96.30	94.07	99.74	99.26	100.00	99.74	100.00	99.61	100.00	94.80	100.00	100.00	100.00	100.00
0-3	Best	98.32	93.15	98.77	96.96	99.68	97.09	100.00	100.00	99.03	92.69	100.00	100.00	100.00	99.29
	Last	92.42	86.92	94.69	92.20	99.35	93.72	100.00	99.68	96.76	90.87	100.00	100.00	100.00	96.89
1-0	Best	99.92	99.86	99.92	98.04	100.00	99.85	100.00	100.00	100.00	99.46	100.00	100.00	100.00	100.00
	Last	99.77	99.48	98.08	94.07	93.87	93.33	100.00	98.54	99.62	95.33	100.00	99.92	100.00	100.00
1-2	Best	100.00	100.00	99.94	99.48	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Last	99.94	99.87	99.87	96.60	100.00	100.00	100.00	100.00	100.00	99.87	100.00	100.00	100.00	100.00
1-3	Best	99.68	98.59	97.93	96.02	100.00	100.00	100.00	100.00	100.00	95.79	100.00	100.00	100.00	100.00
	Last	98.32	94.33	96.18	90.93	100.00	99.94	100.00	100.00	99.68	93.79	100.00	99.94	100.00	99.87
2-0	Best	99.23	98.36	97.16	92.69	99.62	99.39	100.00	99.92	99.23	97.24	100.00	99.77	99.62	99.54
	Last	98.70	96.25	96.70	85.13	98.47	93.72	100.00	99.62	97.32	95.02	99.62	99.31	99.62	99.31
2-1	Best	99.42	99.25	99.61	99.05	100.00	99.68	100.00	100.00	99.68	98.51	100.00	99.74	100.00	99.87
	Last	98.31	97.35	98.25	97.04	100.00	99.61	100.00	99.74	98.70	97.92	100.00	99.55	100.00	99.55
2-3	Best	99.94	99.45	99.03	98.30	100.00	100.00	100.00	100.00	100.00	99.22	100.00	100.00	100.00	100.00
	Last	99.87	97.78	98.90	96.43	100.00	100.00	100.00	100.00	100.00	98.90	100.00	100.00	100.00	100.00
3-0	Best	91.26	87.11	95.40	89.91	99.23	98.93	100.00	99.54	94.25	87.89	99.62	99.00	99.62	99.39
	Last	87.36	81.10	95.33	84.12	95.02	92.18	100.00	98.85	93.49	85.44	99.23	98.54	99.23	98.77
3-1	Best	91.55	88.51	96.82	95.34	100.00	99.22	100.00	99.68	97.73	96.23	100.00	99.74	100.00	98.12
	Last	88.04	82.83	94.09	89.53	100.00	99.09	100.00	99.09	97.40	95.52	100.00	99.42	100.00	97.53
3-2	Best	99.61	97.82	99.87	99.82	100.00	100.00	100.00	100.00	100.00	97.79	100.00	100.00	100.00	100.00
	Last	96.23	90.12	99.03	96.52	100.00	100.00	100.00	100.00	99.68	97.14	100.00	99.94	100.00	99.94
Best a	verage	98.24	96.73	98.70	97.11	99.88	99.51	100.00	99.93	99.16	96.78	99.97	99.86	99.94	99.68
Last a	verage	96.23	93.27	97.57	93.47	98.89	97.49	100.00	99.60	98.55	95.11	99.90	99.71	99.90	99.32
Best	bias	0.00	0.00	0.47	0.38	1.64	2.78	1.76	3.20	0.92	0.05	1.73	3.13	1.70	2.96
Last	bias	0.00	0.00	1.34	0.20	2.66	4.22	3.77	6.33	2.33	1.84	3.68	6.44	3.68	6.05

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

CWRU with the frequency domain input

Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COF	RAL	DA	NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean
0-1	Best	99.61	99.46	99.48	99.13	100.00	99.94	100.00	99.87	100.00	99.94	100.00	100.00	100.00	100.00
	Last	99.48	98.60	98.64	98.25	100.00	99.81	100.00	99.48	100.00	99.81	100.00	99.87	99.68	99.61
0-2	Best	90.51	89.87	91.03	90.27	100.00	100.00	100.00	99.94	100.00	98.12	100.00	99.81	100.00	95.52
	Last	89.34	86.16	89.15	87.86	100.00	99.87	100.00	98.90	100.00	97.92	100.00	99.55	100.00	92.73
0-3	Best	77.40	76.64	83.55	80.06	100.00	95.54	100.00	97.73	98.06	93.07	100.00	94.95	100.00	93.85
	Last	75.78	74.22	78.04	75.35	100.00	94.89	100.00	96.57	97.41	91.07	99.68	91.98	100.00	93.66
1-0	Best	98.01	96.89	97.78	97.35	100.00	99.31	100.00	99.39	98.85	98.39	100.00	99.31	100.00	99.54
	Last	96.17	94.53	96.93	94.37	93.49	91.42	99.62	96.32	98.08	97.16	99.23	98.85	98.08	97.78
1-2	Best	97.01	93.01	95.00	93.39	100.00	100.00	100.00	100.00	100.00	99.29	100.00	100.00	100.00	99.68
	Last	93.63	91.19	90.58	89.66	100.00	100.00	100.00	100.00	100.00	98.83	100.00	100.00	100.00	98.90
1-3	Best	83.10	81.35	81.15	79.73	100.00	96.96	100.00	94.63	99.68	98.12	100.00	99.94	100.00	97.86
	Last	77.33	75.53	77.66	73.99	100.00	96.64	99.68	93.59	99.35	97.86	100.00	99.81	100.00	96.57
2-0	Best	82.61	78.55	80.54	79.11	94.64	89.43	99.62	92.41	97.70	90.65	97.70	90.35	90.80	89.50
	Last	80.61	70.25	77.24	68.69	89.27	85.75	94.25	83.14	97.32	89.89	97.32	88.35	89.27	86.21
2-1	Best	91.75	89.24	90.45	88.68	92.21	90.72	100.00	94.09	99.03	95.91	100.00	98.12	92.53	90.45
	Last	87.33	85.66	86.22	83.72	86.04	85.39	100.00	90.78	98.05	94.67	99.35	96.24	92.53	86.30
2-3	Best	89.05	86.61	93.52	87.72	100.00	93.59	100.00	100.00	100.00	98.00	89.32	86.93	100.00	90.03
	Last	79.08	77.53	91.52	79.69	100.00	90.68	100.00	100.00	100.00	97.41	85.11	84.01	100.00	87.38
3-0	Best	77.78	74.15	76.48	74.16	95.02	88.43	87.74	84.90	83.52	81.23	97.32	88.28	87.74	81.07
	Last	72.95	64.84	72.03	69.40	90.04	84.98	83.52	78.39	82.76	79.69	96.93	84.60	86.97	79.00
3-1	Best	80.25	77.52	83.30	79.49	100.00	99.94	100.00	95.65	98.05	90.91	100.00	90.85	85.06	83.70
	Last	72.45	70.59	80.70	73.90	100.00	99.81	100.00	93.64	97.73	89.48	99.68	87.92	84.74	82.40
3-2	Best	91.62	89.64	95.06	89.97	100.00	90.19	100.00	95.97	100.00	98.90	100.00	95.32	100.00	94.74
	Last	84.28	78.95	84.67	79.27	100.00	84.61	100.00	93.83	100.00	97.79	100.00	93.70	100.00	92.14
Best a	verage	88.23	86.08	88.95	86.59	98.49	95.34	98.95	96.22	97.91	95.21	98.70	95.32	96.34	93.00
Last av	verage	84.04	80.67	85.28	81.18	96.57	92.82	98.09	93.72	97.56	94.30	98.11	93.74	95.94	91.06
Best	bias	0.00	0.00	0.72	0.51	10.26	9.26	10.72	10.14	9.68	9.13	10.47	9.24	8.12	6.92
Last	bias	0.00	0.00	1.25	0.51	12.53	12.15	14.05	13.05	13.52	13.63	14.07	13.07	11.90	10.39

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

<sup>\*</sup> The maximum Mean value of each row is bolded.

PU with the time domain input

Task	Loc	Ba	sis	Ada	BN	MK-N	MMD	JM	MD	COI	RAL	DA	NN	CD	AN
		Max	Mean												
0-1	Best	24.16	21.44	40.04	38.26	36.81	33.10	37.88	36.50	31.13	27.97	44.17	41.72	38.04	37.02
	Last	15.54	14.02	33.59	30.00	32.36	29.14	35.43	32.79	29.75	24.69	40.64	38.19	36.35	33.68
0-2	Best	79.24	77.78	76.83	74.70	82.29	80.73	82.44	80.61	76.18	69.89	83.05	80.95	81.83	79.85
	Last	78.60	76.33	75.91	72.27	81.37	79.48	81.98	79.63	57.10	40.46	83.05	79.97	80.15	78.56
0-3	Best	47.90	45.02	51.23	48.93	47.66	43.84	54.46	52.68	49.47	39.61	57.03	55.04	54.01	50.05
	Last	32.24	30.02	41.54	40.26	44.18	41.09	52.95	50.92	38.58	33.19	55.98	53.74	51.89	47.62
1-0	Best	33.43	30.55	50.02	46.56	38.71	35.85	43.16	40.77	27.80	23.50	42.24	38.99	39.02	36.31
	Last	27.99	23.57	41.41	38.27	37.48	33.24	36.71	35.94	18.13	15.61	40.25	35.42	35.33	30.75
1-2	Best	34.48	33.13	49.80	44.92	41.68	38.23	47.63	41.19	32.06	25.53	45.80	43.88	46.56	44.43
	Last	26.02	24.18	43.17	37.13	40.00	35.39	43.97	35.17	28.70	21.16	41.83	39.57	43.51	38.99
1-3	Best	23.74	22.34	34.91	32.89	28.14	26.51	30.71	28.68	20.88	19.15	36.01	32.19	34.34	30.98
	Last	19.74	16.09	30.46	25.36	25.42	23.39	24.96	22.54	17.85	14.37	29.80	27.05	27.84	23.63
2-0	Best	79.08	77.70	74.75	73.99	80.80	78.86	80.65	78.93	76.19	72.63	81.41	80.27	82.95	80.40
	Last	78.43	76.73	72.84	71.35	79.57	77.79	79.88	77.30	64.82	50.41	80.18	79.20	81.87	79.11
2-1	Best	26.04	23.16	35.52	33.16	36.50	35.03	38.96	36.72	33.74	29.94	41.26	39.27	45.55	41.38
	Last	16.24	14.71	27.33	25.05	34.66	31.07	33.59	32.06	31.90	26.59	39.11	36.53	38.65	34.76
2-3	Best	45.41	43.05	50.29	49.61	46.44	43.90	51.29	50.05	38.12	33.89	53.86	50.62	51.59	49.53
	Last	32.70	31.23	44.02	40.73	46.14	41.94	49.62	47.66	25.11	18.85	52.04	49.23	50.23	47.44
3-0	Best	45.75	42.35	48.73	46.88	48.39	44.02	54.69	51.12	32.87	31.52	50.38	49.62	51.77	48.69
	Last	36.01	32.16	45.16	40.94	45.62	41.66	53.92	49.31	24.73	17.23	49.62	47.93	45.62	43.90
3-1	Best	31.01	29.25	34.51	32.65	30.06	29.17	30.67	29.29	28.83	26.41	33.59	31.50	33.28	31.59
	Last	26.59	25.27	32.05	28.43	28.22	22.64	27.61	23.53	17.18	14.23	30.67	27.45	30.67	27.97
3-2	Best	43.53	40.23	52.37	48.58	44.12	43.54	51.60	49.01	32.67	30.56	52.82	49.37	47.33	45.25
	Last	35.68	32.39	46.22	41.99	38.47	37.19	49.77	47.39	22.14	18.93	50.84	47.57	42.75	40.40
Best a	verage	42.81	40.50	49.92	47.59	46.80	44.40	50.35	47.96	40.00	35.88	51.80	49.45	50.52	47.96
Last a	verage	35.48	33.06	44.48	40.98	44.46	41.17	47.53	44.52	31.33	24.64	49.50	46.82	47.07	43.90
Best	bias	0.00	0.00	7.10	7.09	3.99	3.90	7.53	7.46	-2.82	-4.62	8.99	8.95	7.71	7.46
Last	bias	0.00	0.00	8.99	7.92	8.98	8.11	12.05	11.46	-4.15	-8.41	14.02	13.76	11.59	10.84

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

PU with the frequency domain input

Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COF	RAL	DA	NN	CD	AN
		Max	Mean												
0-1	Best	24.87	23.28	33.77	30.21	34.97	32.79	39.72	36.19	26.84	23.44	44.48	42.91	42.48	40.06
	Last	22.72	20.96	26.80	24.15	34.36	30.43	36.96	33.28	24.54	19.45	43.56	40.34	40.18	35.46
0-2	Best	93.21	92.08	92.27	90.63	94.96	94.35	96.34	95.54	88.70	85.83	95.42	94.29	97.25	95.36
	Last	91.93	90.87	91.56	89.12	94.50	93.59	95.57	94.99	82.29	66.47	94.96	93.71	96.64	94.72
0-3	Best	62.91	61.18	64.21	60.93	77.76	76.67	80.33	78.55	60.36	57.76	84.72	82.99	83.51	80.63
	Last	58.95	57.14	61.64	57.11	77.31	75.04	79.12	77.40	54.01	50.83	84.27	82.15	82.00	79.49
1-0	Best	29.31	27.65	28.08	26.91	32.57	30.51	34.41	31.58	23.66	21.87	34.56	32.29	36.56	33.12
	Last	26.76	25.13	25.59	24.61	27.50	26.27	29.19	28.02	14.59	12.81	30.88	28.48	34.56	29.37
1-2	Best	27.03	26.58	25.22	24.49	32.67	30.87	40.76	33.86	25.50	23.76	38.78	36.91	45.50	40.31
	Last	25.44	24.14	23.08	21.50	30.23	27.33	39.39	30.44	18.78	15.39	38.02	35.27	44.89	38.51
1-3	Best	19.53	18.03	20.35	19.04	23.90	22.03	26.32	24.18	20.27	15.95	26.93	24.84	28.59	26.63
	Last	14.17	13.75	15.74	14.74	21.33	20.36	24.21	22.30	12.56	11.10	25.57	22.88	27.53	21.39
2-0	Best	88.69	87.79	89.59	88.98	92.32	91.46	94.32	91.89	83.72	82.34	94.16	93.09	94.01	93.27
	Last	87.47	86.40	88.91	88.37	91.40	90.48	93.86	91.37	79.88	64.82	94.01	92.50	93.09	92.57
2-1	Best	26.83	24.49	28.43	27.47	36.96	33.56	44.33	40.06	32.98	29.48	53.07	47.36	50.15	48.44
	Last	22.57	20.55	23.98	22.43	35.28	32.30	43.87	37.27	29.14	24.11	51.69	46.01	49.08	46.23
2-3	Best	63.25	60.23	62.28	60.62	79.58	77.40	79.27	76.97	66.26	60.33	83.36	80.21	82.60	79.15
	Last	60.55	57.18	59.16	58.10	78.67	76.70	78.52	76.31	64.30	43.90	83.06	79.52	81.54	78.24
3-0	Best	58.00	56.25	60.18	56.28	62.52	60.06	74.81	71.58	52.53	51.33	80.03	69.40	67.74	63.29
	Last	54.78	52.58	54.75	51.63	61.14	58.77	74.04	71.03	50.69	36.80	78.96	68.76	65.90	61.50
3-1	Best	25.85	24.21	30.33	29.52	40.03	32.18	34.66	31.87	24.54	22.36	30.67	29.97	39.57	35.52
	Last	21.80	20.90	26.90	24.76	39.72	30.15	30.67	23.04	19.48	16.20	28.53	24.57	37.88	32.12
3-2	Best	59.22	56.57	61.88	56.15	71.91	67.18	81.22	71.39	63.21	55.91	83.82	77.19	79.69	69.56
	Last	56.86	53.64	57.78	54.00	70.69	66.32	81.07	70.47	60.61	48.70	83.36	76.15	78.47	66.47
Best a	verage	48.23	46.53	49.72	47.60	56.68	54.09	60.54	56.97	47.38	44.20	62.50	59.29	62.30	58.78
Last av	verage	45.33	43.60	46.32	44.21	55.18	52.31	58.87	54.66	42.57	34.22	61.41	57.53	60.98	56.34
Best	bias	0.00	0.00	1.49	1.07	8.45	7.56	12.32	10.45	-0.84	-2.33	14.28	12.76	14.08	12.25
Last	bias	0.00	0.00	0.99	0.61	9.84	8.71	13.54	11.06	-2.76	-9.39	16.07	13.93	15.65	12.74

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias the Last bias between Basis and other methods.

<sup>\*</sup> The maximum Mean value of each row is bolded.

JNU with the time domain input

Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COI	RAL	DA	.NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean
0-1	Best	99.04	98.85	98.46	97.70	99.32	99.08	99.83	99.15	95.73	93.75	98.98	98.88	99.32	99.22
	Last	97.92	97.54	95.97	95.29	98.81	98.33	98.46	97.95	72.35	61.74	98.12	97.54	98.12	97.85
0-2	Best	96.42	95.86	96.66	96.22	98.46	98.19	98.81	98.29	95.22	92.53	98.29	97.68	97.95	97.81
	Last	93.72	92.80	93.58	93.19	97.78	97.20	97.95	97.27	55.46	52.18	97.27	96.69	97.10	96.79
1-0	Best	89.49	87.87	91.60	91.16	97.78	96.96	97.95	97.17	77.65	72.15	96.25	95.26	95.39	94.30
	Last	68.87	66.31	86.89	85.45	97.27	96.21	97.61	96.59	73.38	61.74	96.08	94.85	94.20	91.50
1-2	Best	98.63	98.29	98.23	97.56	99.66	99.49	99.66	99.49	99.32	97.82	99.49	99.29	99.66	99.42
	Last	98.16	97.77	96.79	95.23	99.32	99.01	99.49	99.11	72.01	58.23	99.32	98.87	98.98	98.60
2-0	Best	91.43	90.73	92.39	90.81	93.86	93.07	94.03	92.93	89.25	85.39	92.66	91.84	93.00	91.81
	Last	87.34	85.94	87.37	83.28	93.17	91.98	93.17	91.78	55.46	53.58	91.64	90.51	91.13	89.56
2-1	Best	99.15	98.89	98.16	97.69	99.49	99.22	99.66	99.35	97.44	96.11	99.15	98.84	99.32	99.18
	Last	98.57	97.62	94.71	94.16	98.29	97.78	98.81	98.46	79.69	56.59	98.63	97.98	98.81	98.50
Best a	verage	95.69	95.08	95.92	95.19	98.10	97.67	98.32	97.73	92.44	89.62	97.47	96.96	97.44	96.96
Last a	verage	90.76	89.67	92.55	91.10	97.44	96.75	97.58	96.86	68.06	57.34	96.84	96.08	96.39	95.47
Best	bias	0.00	0.00	0.22	0.11	2.40	2.59	2.63	2.65	-3.26	-5.46	1.78	1.88	1.75	1.88
Last	bias	0.00	0.00	1.79	1.44	6.68	7.09	6.82	7.20	-22.71	-32.32	6.08	6.41	5.63	5.80

<sup>\*</sup>Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\*The maximum Mean value of each row is bolded.

JNU with the frequency domain input

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Task	Loc	Ba	isis	Ada	BN	MK-l	MMD	JM	MD	COF	RAL	DA	NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean
0-1	Best	89.80	83.83	84.68	83.59	97.44	96.90	97.44	97.00	82.94	72.97	96.25	93.48	97.44	93.00
	Last	76.38	73.04	82.18	77.77	97.10	96.35	96.42	96.08	60.58	54.95	95.73	92.76	96.42	91.94
0-2	Best	78.19	76.39	73.65	72.43	96.93	95.80	97.78	96.31	71.67	62.59	94.88	90.65	95.39	91.67
	Last	68.57	62.19	61.23	58.66	96.76	95.22	97.27	95.63	71.67	57.92	93.86	88.16	94.20	89.73
1-0	Best	73.75	69.38	84.10	79.58	92.15	87.92	93.34	89.31	67.41	59.97	92.83	91.78	92.83	92.22
	Last	66.79	55.33	76.25	66.58	91.30	85.87	92.83	87.06	60.24	53.62	91.47	90.82	92.15	91.43
1-2	Best	89.93	87.88	87.68	86.61	96.93	96.32	97.61	97.24	83.96	80.89	97.10	96.35	96.93	96.31
	Last	87.37	84.51	84.91	83.17	96.42	95.57	96.93	96.21	77.47	59.93	96.59	95.56	96.42	95.80
2-0	Best	85.53	84.44	85.87	84.31	92.83	92.18	93.86	92.22	79.86	70.99	92.83	90.85	91.13	90.51
	Last	80.44	77.07	81.57	80.02	91.98	91.16	92.15	90.68	60.92	55.29	91.81	89.97	90.61	89.69
2-1	Best	88.84	88.35	88.12	87.79	97.44	95.32	97.95	91.67	91.47	88.19	92.15	90.92	90.61	89.90
	Last	87.92	87.17	86.48	86.10	96.93	94.71	97.61	89.59	91.30	72.22	90.44	89.05	90.10	89.32
Best av	verage	84.34	81.71	84.02	82.38	95.62	94.07	96.33	93.96	79.55	72.60	94.34	92.34	94.06	92.27
Last av	verage	77.91	73.22	78.77	75.38	95.08	93.15	95.54	92.54	70.36	58.99	93.32	91.05	93.32	91.32
Best	bias	0.00	0.00	-0.32	0.67	11.28	12.36	11.99	12.25	-4.79	-9.11	10.00	10.63	9.72	10.56
Last	bias	0.00	0.00	0.86	2.16	17.17	19.93	17.62	19.32	-7.55	-14.23	15.41	17.83	15.41	18.10

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

PHM2009 with the time domain input

Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COI	RAL	DA	NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean								
0-1	Best	41.60	40.70	41.35	41.04	43.27	41.41	46.79	44.42	39.74	37.50	46.47	44.04	43.59	42.82
	Last	40.06	38.31	39.87	38.32	40.06	37.37	46.79	42.63	31.73	27.69	44.55	41.28	41.67	38.91
0-2	Best	45.90	42.12	46.86	45.67	49.04	45.77	47.44	45.90	39.42	34.74	49.36	46.54	47.44	44.42
	Last	38.14	36.91	43.53	42.66	47.76	42.05	45.83	43.46	30.45	26.15	45.19	42.76	42.95	40.45
0-3	Best	38.46	35.22	43.01	41.72	41.99	38.91	41.99	40.13	33.33	31.34	42.63	40.58	41.99	38.65
	Last	30.77	29.59	39.94	38.01	38.46	35.58	39.42	37.37	27.88	23.08	41.03	37.88	40.71	36.09
1-0	Best	41.92	41.20	42.69	41.27	48.40	45.96	48.08	46.99	41.99	38.14	46.79	45.38	48.08	45.77
	Last	39.17	38.01	38.78	37.68	46.47	41.47	45.19	44.36	31.73	23.46	45.19	42.12	45.83	43.65
1-2	Best	53.85	53.13	54.62	53.44	58.33	56.28	57.37	56.73	53.85	51.28	58.01	56.67	58.01	55.90
	Last	51.60	50.68	53.46	50.87	55.77	51.67	56.73	54.10	43.91	28.65	54.49	52.76	55.13	52.50
1-3	Best	52.05	50.08	52.44	50.81	52.88	50.83	51.92	50.45	47.76	43.40	50.96	49.29	50.96	49.55
	Last	47.12	44.85	46.15	44.91	47.44	45.32	48.40	46.99	40.38	34.42	47.76	44.62	46.47	44.68
2-0	Best	43.14	41.94	44.49	43.41	45.51	44.81	48.08	45.26	37.50	36.09	50.00	44.94	45.51	43.85
	Last	37.18	35.79	39.81	38.11	44.23	40.70	45.83	41.28	27.88	23.85	46.79	41.34	42.31	40.00
2-1	Best	53.01	52.42	53.53	51.65	58.97	54.23	55.13	53.91	45.51	42.69	56.73	53.85	58.97	54.81
	Last	50.83	48.15	50.51	48.06	57.69	51.22	50.64	49.10	37.50	33.72	54.49	49.87	55.13	48.78
2-3	Best	58.78	57.23	58.85	57.36	61.54	59.94	61.54	59.10	52.56	50.64	60.90	58.65	61.22	58.59
	Last	55.38	53.95	56.41	54.82	58.97	57.11	59.62	57.18	41.03	35.25	58.01	55.32	56.09	53.72
3-0	Best	39.23	35.95	41.92	40.13	39.10	38.14	39.74	38.65	34.29	28.91	42.31	39.93	41.67	39.55
	Last	29.10	27.31	38.85	35.69	33.97	32.37	33.01	30.07	25.00	19.30	33.97	32.63	33.65	32.63
3-1	Best	51.47	48.96	51.09	50.17	50.00	46.73	51.28	48.53	43.59	42.18	50.00	49.62	50.96	49.30
	Last	43.27	41.67	47.69	45.39	44.55	42.05	47.44	44.68	38.14	35.06	45.83	42.76	46.47	44.10
3-2	Best	55.13	54.06	57.56	55.40	55.13	53.85	58.01	56.47	51.92	47.11	57.05	55.90	56.09	54.75
	Last	52.18	50.65	52.82	51.26	51.92	50.26	55.13	54.23	41.03	36.79	54.49	52.50	53.53	48.91
Best a	verage	47.88	46.08	49.03	47.67	50.35	48.07	50.61	48.88	43.46	40.34	50.93	48.78	50.37	48.16
Last a	verage	42.90	41.32	45.65	43.82	47.27	43.93	47.84	45.45	34.72	28.95	47.65	44.65	46.66	43.70
Best	bias	0.00	0.00	1.16	1.59	2.47	1.99	2.74	2.79	-4.42	-5.75	3.06	2.70	2.50	2.08
Last	bias	0.00	0.00	2.75	2.49	4.37	2.61	4.94	4.13	-8.18	-12.37	4.75	3.33	3.76	2.38

<sup>\*</sup> Best average the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

PHM2009 with the frequency domain input

Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COF	RAL	DA	NN	CD	AN
		Max	Mean												
0-1	Best	54.87	53.96	57.12	55.13	63.78	61.41	63.14	61.09	57.69	54.10	63.78	61.86	67.31	63.59
	Last	51.09	49.71	51.41	50.77	62.18	58.66	60.58	58.27	56.73	45.32	61.22	57.18	66.03	61.99
0-2	Best	51.67	49.13	48.40	46.96	53.53	50.71	53.21	51.35	55.13	46.86	52.24	50.26	57.37	52.82
	Last	43.97	40.39	43.14	40.92	48.72	46.09	49.68	47.95	47.12	39.04	47.44	44.81	54.49	48.40
0-3	Best	45.19	43.04	44.49	41.98	48.40	46.79	48.72	47.63	44.55	43.14	46.15	45.06	50.32	46.35
	Last	32.76	28.40	38.14	36.32	43.59	40.26	44.23	42.37	41.03	38.98	42.63	40.00	47.76	40.58
1-0	Best	60.13	56.13	58.21	55.16	67.31	64.30	72.44	67.56	57.69	53.27	71.79	65.45	65.38	64.36
	Last	54.94	52.54	55.13	52.94	63.46	61.99	68.91	63.97	57.05	48.65	69.55	63.78	63.78	62.18
1-2	Best	66.99	64.27	65.00	63.54	67.31	64.49	68.91	65.00	68.59	61.47	69.55	66.92	66.99	66.48
	Last	60.00	59.58	63.08	60.28	63.78	61.28	62.82	60.64	66.03	53.85	68.27	64.74	66.67	64.81
1-3	Best	62.24	60.15	67.69	64.77	58.01	56.28	61.22	59.55	58.01	53.91	60.90	59.36	66.03	61.73
	Last	57.50	54.90	64.42	61.52	55.45	51.92	57.69	54.94	53.53	48.21	58.65	56.28	61.86	58.78
2-0	Best	53.08	49.88	55.00	53.79	59.94	56.54	60.90	58.08	52.88	46.86	62.50	60.51	62.18	59.87
	Last	44.29	41.54	49.87	45.59	56.09	54.43	58.01	54.36	37.50	33.84	60.58	58.91	59.62	56.28
2-1	Best	66.99	64.73	65.13	64.31	70.51	68.27	71.79	68.97	68.27	59.04	71.15	69.74	70.51	69.61
	Last	62.44	59.89	62.44	60.62	68.27	66.28	66.99	65.58	63.14	49.17	68.91	67.89	68.59	66.86
2-3	Best	75.90	74.31	74.74	71.56	78.85	76.35	81.41	77.37	72.76	70.06	82.05	77.18	80.45	78.59
	Last	71.67	70.13	70.58	69.04	76.60	73.72	80.13	74.49	68.91	59.10	77.24	73.21	78.85	75.38
3-0	Best	37.05	33.49	47.18	45.71	43.91	42.37	42.63	41.09	41.99	34.10	46.79	43.72	48.40	46.03
	Last	28.01	26.33	42.44	38.67	41.67	36.86	31.41	28.21	34.94	25.45	41.99	35.70	42.63	38.40
3-1	Best	52.56	49.35	57.31	56.30	64.42	62.63	64.74	62.88	59.94	46.60	63.46	61.60	63.78	61.99
	Last	39.74	37.10	52.95	51.23	60.26	58.91	62.18	59.62	49.36	36.73	63.14	59.68	60.90	58.59
3-2	Best	71.03	68.77	72.69	71.60	74.04	70.96	73.40	71.67	75.64	64.23	71.15	70.19	73.72	71.67
	Last	62.24	56.99	67.50	65.46	71.47	68.59	70.83	67.50	73.40	59.10	69.23	67.12	69.87	69.04
Best av	verage	58.14	55.60	59.41	57.57	62.50	60.09	63.54	61.02	59.43	52.80	63.46	60.99	64.37	61.92
Last av	verage	50.72	48.12	55.09	52.78	59.30	56.58	59.46	56.49	54.06	44.79	60.74	57.44	61.75	58.44
Best	bias	0.00	0.00	1.27	1.97	4.36	4.49	5.32	5.39	1.29	-2.80	5.32	5.39	6.23	6.32
Last	bias	0.00	0.00	4.37	4.66	8.57	8.46	10.02	9.32	3.34	-3.34	10.02	9.32	11.03	10.32

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

<sup>\*</sup> The maximum Mean value of each row is bolded.

SEU with the time domain input

Task	Loc	Ba	sis	Ada	BN	MK-I	MMD	JM	MD	COI	RAL	DA	.NN	CD	AN
		Max	Mean	Max	Mean	Max	Mean								
0-1	Best	48.91	48.33	52.93	51.59	57.04	53.81	57.04	53.14	45.45	38.80	54.84	51.32	57.77	53.40
	Last	42.70	39.18	49.82	47.69	54.40	48.65	53.81	45.98	35.78	27.57	44.72	41.61	55.28	46.48
1-0	Best	61.03	58.37	58.42	56.21	68.62	62.87	67.45	62.23	56.60	54.08	66.13	59.33	63.05	60.12
	Last	59.09	53.33	53.84	50.87	67.30	61.20	65.25	59.97	50.73	33.23	63.05	55.45	57.77	53.93
Best a	verage	54.97	53.35	55.68	53.90	62.83	58.34	62.25	57.68	51.03	46.44	60.49	55.32	60.41	56.76
Last a	verage	50.90	46.25	51.83	49.28	60.85	54.93	59.53	52.98	43.26	30.40	53.89	48.53	56.53	50.21
Best	bias	0.00	0.00	0.71	0.55	7.86	4.99	7.28	4.33	-3.94	-6.91	5.52	1.97	5.44	3.41
Last	bias	0.00	0.00	0.93	3.03	9.96	8.67	8.63	6.73	-7.64	-15.86	2.99	2.28	5.63	3.95

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

SEU with the frequency domain input

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Task	Loc	Ba	sis	Ada	BN	MK-l	MMD	JM	MD	COF	RAL	DA	.NN	CD	AN
		Max	Mean												
0-1	Best	37.36	34.61	41.99	36.35	42.96	40.38	46.92	44.90	53.37	38.39	47.07	43.02	49.41	41.58
	Last	27.74	22.89	24.99	20.68	39.00	33.14	43.11	36.28	30.94	25.13	44.57	34.63	41.64	32.34
1-0	Best	46.72	38.92	50.97	43.04	63.34	57.13	56.30	51.64	45.89	37.77	63.05	60.88	61.58	57.18
	Last	37.86	33.48	42.05	35.80	56.60	51.44	50.59	46.13	41.06	29.18	59.24	56.60	60.26	53.37
Best a	verage	42.04	36.77	46.48	39.70	53.15	48.75	51.61	48.27	49.63	38.08	55.06	51.95	55.50	49.38
Last a	verage	32.80	28.19	33.52	28.24	47.80	42.29	46.85	41.20	36.00	27.16	51.91	45.62	50.95	42.86
Best	bias	0.00	0.00	4.44	2.93	11.11	11.99	9.57	11.50	7.59	1.31	13.02	15.18	13.46	12.62
Last	bias	0.00	0.00	0.72	0.05	15.00	14.10	14.05	13.02	3.20	-1.03	19.11	17.43	18.15	14.67

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

## CWRU with the time and frequency domain inputs for PADA

Task	Loc	Time dom	ain input	Frequency	domain input
		Max	Mean	Max	Mean
0-1	Best	100.00	98.31	97.32	96.63
	Last	100.00	96.63	95.40	93.49
0-2	Best	100.00	97.63	97.70	97.01
	Last	100.00	96.32	96.17	95.25
0-3	Best	94.61	87.43	90.42	85.99
	Last	85.63	80.12	83.83	79.40
1-0	Best	100.00	100.00	99.40	98.80
	Last	100.00	100.00	98.80	95.42
1-2	Best	100.00	100.00	100.00	100.00
	Last	100.00	97.47	100.00	94.95
1-3	Best	100.00	100.00	100.00	99.90
	Last	100.00	84.92	100.00	92.25
2-0	Best	100.00	100.00	100.00	100.00
	Last	100.00	94.95	100.00	99.79
2-1	Best	100.00	100.00	100.00	100.00
	Last	100.00	100.00	100.00	100.00
2-3	Best	100.00	98.88	100.00	100.00
	Last	99.30	79.72	100.00	85.87
3-0	Best	100.00	100.00	100.00	100.00
	Last	100.00	89.90	100.00	94.53
3-1	Best	100.00	89.16	85.42	72.50
	Last	91.67	35.83	47.92	45.83
3-2	Best	100.00	99.17	100.00	99.17
	Last	100.00	73.75	85.42	78.75
Best av	erage	99.55	97.55	97.52	95.83
Last av	erage	98.05	85.80	92.30	87.96

<sup>\*</sup> Best average if the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

<sup>\*</sup> The maximum Mean value of each row is bolded.

CWRU with the time domain input for OSBP

Task	Loc					OS	BP				
		AI	L*	UN	١K	O	S	Al	LL	H-se	core
		Max	Mean								
0-1	Best	97.32	92.03	95.74	97.87	96.25	90.13	97.08	92.92	96.52	94.82
	Last	68.20	80.53	40.43	17.02	55.24	67.31	63.96	70.84	50.76	23.74
0-2	Best	97.32	91.27	95.74	97.02	96.27	89.11	97.08	92.14	96.52	93.91
	Last	85.82	84.83	42.55	23.40	76.49	73.25	79.22	75.45	56.90	34.48
0-3	Best	89.92	91.77	81.69	73.80	85.40	86.47	88.03	87.64	85.61	81.53
	Last	75.63	86.89	35.21	19.72	61.44	74.17	66.34	71.46	48.05	30.24
1-0	Best	90.00	82.42	83.10	73.52	87.99	79.25	88.12	80.00	86.41	77.10
	Last	48.42	70.84	80.28	43.38	46.43	63.92	57.09	63.37	60.41	33.66
1-2	Best	95.77	91.13	83.13	78.32	93.99	89.31	88.96	84.22	89.01	83.51
	Last	97.18	87.18	40.96	21.81	89.13	77.88	66.88	51.95	57.63	32.84
1-3	Best	91.61	84.62	76.51	70.00	89.37	82.48	83.50	76.76	83.38	75.95
	Last	75.52	77.76	65.66	32.17	74.03	71.22	70.23	53.27	70.25	41.82
2-0	Best	84.94	79.88	90.53	82.11	83.77	77.56	86.97	80.69	87.64	80.08
	Last	90.36	75.18	37.89	43.79	81.58	67.20	71.26	63.75	53.40	44.84
2-1	Best	79.34	80.56	92.63	77.89	72.76	71.99	83.44	79.74	85.47	77.43
	Last	55.87	86.67	75.79	17.05	39.99	71.08	62.01	65.19	64.32	16.48
2-3	Best	96.84	90.63	88.24	86.05	93.81	85.58	93.53	88.87	92.34	88.05
	Last	98.95	84.21	39.50	9.41	88.53	64.04	76.05	55.40	56.46	14.16
3-0	Best	87.32	83.24	87.39	79.83	85.07	79.74	87.36	81.69	87.36	80.96
	Last	64.08	76.20	49.58	26.39	55.52	63.67	57.47	53.49	55.91	35.76
3-1	Best	67.61	48.45	67.93	57.81	66.98	50.49	67.86	55.65	67.77	50.69
	Last	29.58	50.70	27.00	14.85	28.94	41.64	27.60	23.12	28.23	20.29
3-2	Best	64.79	67.61	78.90	59.91	68.19	65.80	75.65	61.69	71.15	59.58
	Last	87.32	83.10	24.05	9.11	71.50	64.44	38.64	26.17	37.71	15.55
Best av	erage	86.90	81.97	85.13	77.84	84.99	78.99	86.47	80.17	85.77	78.63
Last av	erage	73.08	78.67	46.58	23.18	64.07	66.65	61.40	56.12	53.34	28.66

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

CWRU with the frequency domain input for OSBP

Task	Loc	OSBP											
		ALL*		UN	١K	C	S	Al	L	H-se	core		
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean		
0-1	Best	80.84	84.29	91.49	78.72	75.91	78.81	82.47	83.44	85.84	80.84		
	Last	89.66	87.05	55.32	42.13	82.86	77.99	84.42	80.20	68.42	56.03		
0-2	Best	86.97	85.21	97.87	80.85	84.02	79.87	88.64	84.54	92.10	81.88		
	Last	82.76	83.91	55.32	25.11	79.03	73.42	78.57	74.93	66.31	34.95		
0-3	Best	89.50	84.03	64.79	57.46	83.06	74.99	83.82	77.93	75.16	68.23		
	Last	86.97	85.63	22.54	12.12	73.92	71.33	72.17	68.74	35.80	20.65		
1-0	Best	78.95	79.79	83.10	71.55	76.71	76.31	80.08	77.55	80.97	74.59		
	Last	41.58	79.26	92.96	23.94	40.97	69.84	55.56	64.21	57.46	21.34		
1-2	Best	91.55	82.39	75.30	72.77	89.30	81.08	82.79	77.21	82.63	76.46		
	Last	76.76	90.28	37.95	26.02	71.29	81.10	55.84	55.65	50.79	39.61		
1-3	Best	77.62	74.54	74.10	69.04	76.99	73.74	75.73	71.58	75.82	71.47		
	Last	59.44	74.82	40.96	21.69	56.65	67.08	49.51	46.28	48.50	31.74		
2-0	Best	83.13	76.87	67.37	68.42	78.67	72.63	77.39	73.79	74.42	71.22		
	Last	89.16	81.57	31.58	18.11	79.51	70.08	68.20	58.47	46.64	28.34		
2-1	Best	76.06	71.45	84.21	78.32	66.79	60.21	78.57	73.57	79.93	72.64		
	Last	51.17	62.25	100.00	41.26	37.50	47.43	66.23	55.78	67.70	31.96		
2-3	Best	93.68	85.47	90.76	82.69	90.01	77.76	92.56	84.40	92.20	83.38		
	Last	77.37	90.74	38.66	26.22	59.22	75.28	62.46	65.89	51.55	39.83		
3-0	Best	92.25	74.65	78.99	78.15	88.86	71.09	86.21	76.25	85.11	76.08		
	Last	80.99	68.73	21.01	16.98	68.02	54.91	53.64	45.13	33.36	26.98		
3-1	Best	61.97	55.21	71.31	60.68	63.66	56.01	69.16	59.42	66.31	55.10		
	Last	63.38	49.01	36.71	14.09	56.14	39.84	42.86	22.14	46.49	18.86		
3-2	Best	73.24	62.82	67.93	62.19	71.83	62.64	69.16	62.34	70.49	61.81		
	Last	74.65	61.12	35.02	7.51	64.55	47.66	44.16	18.87	47.68	10.52		
Best av	erage	82.15	76.39	78.94	71.74	78.82	72.10	80.55	75.17	80.08	72.81		
Last av	erage	72.82	76.20	47.34	22.93	64.14	64.66	61.14	54.77	51.73	30.07		

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias the Last bias between Basis and other methods.

## CWRU with the time domain input for UAN

Task	Loc		UAN											
		AI	L*	UN	١K	C	S	A.	LL	H-se	core			
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean			
0-1	Best	98.19	95.38	100.00	100.00	98.44	95.97	98.42	95.98	99.09	97.62			
	Last	92.09	85.04	95.65	89.67	92.53	85.65	92.59	85.68	93.84	87.19			
0-2	Best	95.21	92.70	100.00	97.39	95.83	93.31	95.79	93.26	97.55	94.83			
	Last	76.43	75.43	100.00	89.09	80.13	77.97	79.63	77.29	86.64	81.52			
0-3	Best	96.62	89.28	95.83	98.33	96.85	87.66	96.49	90.81	96.23	93.51			
	Last	90.30	79.91	95.83	92.08	88.55	78.81	91.23	81.96	92.98	85.51			
1-0	Best	98.43	96.23	97.87	99.15	98.43	96.53	98.32	96.81	98.15	97.65			
	Last	95.00	88.12	100.00	88.89	94.80	87.29	96.10	88.29	97.44	88.41			
1-2	Best	97.92	98.34	100.00	98.30	98.61	98.32	98.95	98.31	98.95	98.31			
	Last	93.18	86.82	93.48	83.91	93.66	85.97	93.33	85.33	93.33	84.86			
1-3	Best	97.92	93.33	100.00	95.00	98.61	93.89	98.96	94.17	98.95	94.15			
	Last	95.65	71.30	97.87	89.36	96.39	76.78	96.77	80.43	96.75	78.39			
2-0	Best	97.89	97.26	97.48	97.65	97.83	97.35	97.66	97.48	97.69	97.45			
	Last	90.53	84.63	95.80	85.38	91.66	84.76	93.46	85.05	93.09	84.98			
2-1	Best	100.00	98.31	97.59	95.30	99.52	97.70	98.47	96.40	98.78	96.78			
	Last	94.74	85.68	95.78	87.83	94.88	86.07	95.40	87.05	95.26	86.61			
2-3	Best	100.00	98.67	97.87	97.02	99.29	98.13	98.91	97.83	98.92	97.81			
	Last	91.11	87.56	95.74	87.66	92.63	87.55	93.48	87.61	93.37	87.52			
3-0	Best	100.00	100.00	97.83	97.83	99.28	99.28	98.89	98.89	98.90	98.90			
	Last	100.00	83.64	95.65	83.04	98.55	83.29	97.78	83.33	97.78	83.32			
3-1	Best	98.32	98.32	100.00	100.00	99.30	99.30	98.59	98.59	99.15	99.15			
	Last	97.00	93.00	95.45	90.91	95.98	92.55	96.72	92.62	96.22	91.93			
3-2	Best	98.32	98.32	100.00	100.00	97.22	98.47	98.59	98.59	99.15	99.15			
	Last	94.17	92.62	95.65	93.91	93.75	92.75	94.44	92.86	94.91	93.26			
Best av	erage	98.24	96.35	98.71	98.00	98.27	96.33	98.17	96.43	98.46	97.11			
Last av	erage	92.52	84.48	96.41	88.47	92.79	84.95	93.41	85.63	94.30	86.12			

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias between Basis and other methods.

CWRU with the frequency domain input for UAN

Task	Loc	UAN										
1 ask	Loc	A T	L*	TIN	JIV		S S	Al	T	H-se	oora	
			Mean	UNK Max Mean		Max	Mean	Max	Mean	Max	Mean	
0-1	Best	Max 93.98	90.84	100.00	100.00	94.70	91.93	94.74	92.00	96.89	95.19	
0-1												
0-2	Last	85.61 90.42	83.45 87.90	95.65 100.00	89.56 100.00	87.04 91.64	84.55	87.04 91.58	84.32 89.37	90.35 94.97	86.38 93.55	
0-2	Best Last						89.46					
0.2		82.14	80.00	95.45	90.00	84.41	81.45	83.95	81.36	88.30	84.58	
0-3	Best	86.92	85.15	100.00	98.75	85.53	82.78	89.12	87.44	93.00	91.44	
1.0	Last	77.64	74.68	89.58	86.25	73.61	70.45	79.65	76.63	83.18	79.98	
1-0	Best	92.15	90.25	100.00	98.70	92.66	90.30	93.70	91.94	95.91	94.27	
	Last	86.25	80.75	97.78	86.67	85.67	79.91	88.78	82.05	91.65	83.49	
1-2	Best	97.92	95.68	95.74	96.57	97.19	95.91	96.84	96.14	96.82	96.09	
	Last	90.91	88.18	91.30	87.82	90.71	87.83	91.11	88.00	91.11	87.96	
1-3	Best	95.83	95.81	100.00	97.07	97.22	96.22	97.92	96.45	97.87	96.43	
	Last	89.13	86.96	95.74	90.64	91.38	88.17	92.47	88.82	92.32	88.66	
2-0	Best	97.89	93.68	94.96	96.47	97.32	94.25	96.26	95.23	96.40	95.03	
	Last	90.53	85.90	89.08	86.22	90.24	85.93	89.72	86.07	89.80	86.01	
2-1	Best	96.84	93.68	98.80	94.82	97.22	94.02	98.08	94.48	97.81	94.35	
	Last	91.58	81.68	91.57	84.94	91.54	82.29	91.57	83.76	91.57	83.26	
2-3	Best	97.78	95.11	95.74	97.02	96.99	95.71	96.74	96.09	96.75	96.01	
	Last	86.67	80.89	93.62	91.06	88.75	83.97	90.22	86.09	90.01	85.51	
3-0	Best	100.00	98.64	97.83	98.26	99.28	98.48	98.89	98.45	98.90	98.43	
	Last	100.00	91.36	93.48	90.00	97.83	91.00	96.67	90.67	96.63	90.64	
3-1	Best	96.00	92.00	100.00	100.00	95.83	90.42	96.72	93.44	97.96	95.81	
	Last	94.00	86.40	100.00	93.64	93.75	82.96	95.08	87.71	96.91	89.84	
3-2	Best	98.32	97.98	100.00	100.00	99.30	98.33	98.59	98.31	99.15	98.98	
	Last	95.15	93.59	95.65	93.04	95.34	93.58	95.24	93.49	95.40	93.28	
Best av	erage	95.34	93.08	98.59	98.14	95.41	93.15	95.77	94.11	96.87	95.46	
Last av	erage	93.08	84.49	94.08	89.15	89.19	84.34	90.13	85.75	91.44	86.63	

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

CWRU with the time and frequency domain inputs for multi-domain transfer

Task	Loc			Time don	nain input			Frequency domain input							
		Basis		IAN		MS-UADA		Basis		IAN		MS-UADA			
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean		
012-3	Best	100.00	100.00	100.00	100.00	100.00	100.00	98.71	97.35	98.06	96.51	100.00	100.00		
	Last	99.03	97.35	100.00	98.12	100.00	100.00	95.47	93.14	87.38	84.79	100.00	99.55		
013-2	Best	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.81	100.00	100.00		
	Last	100.00	100.00	100.00	100.00	100.00	100.00	99.68	98.31	100.00	97.27	100.00	100.00		
023-1	Best	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
	Last	100.00	99.94	100.00	99.94	100.00	100.00	99.68	99.35	100.00	99.22	100.00	100.00		
123-0	Best	100.00	100.00	100.00	100.00	100.00	100.00	99.23	98.62	99.23	98.77	100.00	99.31		
	Last	100.00	100.00	100.00	99.85	100.00	99.92	98.47	97.55	98.47	97.16	98.85	98.47		
Best av	erage	100.00	100.00	100.00	100.00	100.00	100.00	99.49	98.99	99.32	98.77	100.00	99.83		
Last av	erage	99.76	99.32	100.00	99.48	100.00	99.98	98.33	97.09	96.46	94.61	99.71	99.50		
Best	bias	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.16	-0.22	0.52	0.84		
Last	Last bias		0.00	0.24	0.15	0.24	0.66	0.00	0.00	-1.86	-2.48	1.39	2.42		

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias the Last bias between Basis and other methods.

PU-Types with the time domain input

	10 Types with the time domain input															
Task	Loc	Ba	sis	Ada	AdaBN		MK-MMD		JMMD		CORAL		DANN		CDAN	
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	
0-1	Best	60.34	57.12	46.65	41.76	55.22	46.86	56.72	53.13	64.68	58.41	53.73	50.75	56.22	50.65	
	Last	55.54	48.01	39.06	38.10	41.79	33.73	32.84	28.66	49.75	34.63	35.82	33.43	36.32	34.53	
1-0	Best	50.40	46.32	74.27	69.95	49.33	44.53	58.67	54.67	54.00	42.13	57.33	54.40	58.67	56.27	
	Last	34.13	33.79	68.40	61.71	36.67	32.13	47.33	37.73	33.33	33.33	40.67	35.20	38.67	35.47	
Best a	verage	55.37	51.72	60.46	55.85	52.28	45.70	57.70	53.90	59.34	50.27	55.53	52.57	57.45	53.46	
Last a	verage	44.84	40.90	53.73	49.90	39.23	32.93	40.09	33.20	41.54	33.98	38.25	34.32	37.50	35.00	
Best	bias	0.00	0.00	5.09	4.13	-3.10	-6.02	2.33	2.18	3.97	-1.45	0.16	0.85	2.07	1.74	
Last	bias	0.00	0.00	8.90	9.00	-5.61	-7.97	-4.75	-7.70	-3.30	-6.92	-6.59	-6.58	-7.34	-5.90	

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

PU-Types with the frequency domain input

Task	Loc	Basis		AdaBN		MK-MMD		JMMD		CORAL		DANN		CDAN	
		Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean
0-1	Best	62.54	44.78	49.95	41.56	46.77	46.57	45.77	41.29	67.66	59.50	54.73	49.35	44.78	42.79
	Last	36.86	33.63	38.26	36.80	45.27	42.19	33.83	33.04	39.30	35.02	45.77	45.47	44.78	37.51
1-0	Best	71.60	66.56	70.53	66.53	63.33	61.33	68.67	64.93	65.33	57.60	69.33	66.40	74.00	68.80
	Last	62.27	59.79	66.80	61.41	59.33	56.13	62.67	58.00	38.00	34.53	65.33	63.46	73.33	64.27
Best a	verage	67.07	55.67	60.24	54.05	55.05	53.95	57.22	53.11	66.50	58.55	62.03	57.88	59.39	55.79
Last a	verage	49.57	46.71	52.53	49.11	52.30	49.16	48.25	45.52	38.65	34.78	55.55	54.47	59.06	50.89
Best	bias	0.00	0.00	-6.83	-1.62	-12.02	-1.72	-9.85	-2.55	-0.58	2.88	-5.04	2.21	-7.68	0.12
Last	bias	0.00	0.00	2.96	2.40	2.74	2.45	-1.32	-1.19	-10.92	-11.93	5.99	7.76	9.49	4.18

<sup>\*</sup> Best average: the average of Best; Last average: the average of Last; Best bias: the Best bias between Basis and other methods; Last bias: the Last bias between Basis and other methods.

\* The maximum Mean value of each row is bolded.

<sup>\*</sup> The maximum Mean value of each row is bolded.

<sup>\*</sup> The maximum Mean value of each row is bolded.