

TABLE II: Results.

Environment	ES	RQ1					RQ2					RQ3				RQ4				LS
		H1.1	H1.2	H1.3	H1.4		H2.1			H2.2	H3.1			H3.2	H4.1			H4.2		
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	
SPEAR— Workload (#variables/#clauses): $w_1 : 774/5934, w_2 : 1008/7728, w_3 : 1554/11914, w_4 : 978/7498$ ; Version: $v_1 : 1.2, v_2 : 2.7$																				
$ec_1 : [h_2 \rightarrow h_1, w_1, v_2]$	S	<b>1.00</b>	0.22	<b>0.97</b>	<b>0.92</b>	<b>0.92</b>	9	7	7	0	1	25	25	25	1.00	0.47	0.45	1	1.00	3.6
$ec_2 : [h_4 \rightarrow h_1, w_1, v_2]$	L	0.59	24.88	<b>0.91</b>	<b>0.76</b>	<b>0.86</b>	12	7	4	2	0.51	<b>41</b>	<b>27</b>	21	<b>0.98</b>	0.48	0.45	1	0.98	1.3
$ec_3 : [h_1, w_1 \rightarrow w_2, v_2]$	L	<b>0.96</b>	1.97	0.17	0.44	0.32	9	7	4	3	1	23	23	22	0.99	0.45	0.45	1	1.00	<b>13.8</b>
$ec_4 : [h_1, w_1 \rightarrow w_3, v_2]$	M	<b>0.90</b>	3.36	-0.08	0.30	0.11	7	7	4	3	0.99	22	23	22	0.99	0.45	0.49	1	0.94	7.5
$ec_5 : [h_1, w_1, v_2 \rightarrow v_1]$	S	0.23	<b>0.30</b>	0.35	0.28	0.32	6	5	3	1	0.32	<b>21</b>	<b>7</b>	7	0.33	0.45	0.50	1	0.96	1.9
$ec_6 : [h_1, w_1 \rightarrow w_2, v_1 \rightarrow v_2]$	L	-0.10	<b>0.72</b>	-0.05	0.35	0.04	5	6	1	3	<b>0.68</b>	<b>7</b>	<b>21</b>	7	0.31	<b>0.50</b>	<b>0.45</b>	<b>1</b>	<b>0.96</b>	<b>9.6</b>
$ec_7 : [h_1 \rightarrow h_2, w_1 \rightarrow w_4, v_2 \rightarrow v_1]$	VL	-0.10	6.95	0.14	0.41	0.15	6	4	2	2	<b>0.88</b>	<b>21</b>	<b>7</b>	7	-0.44	<b>0.47</b>	<b>0.50</b>	<b>1</b>	<b>0.97</b>	<b>15.3</b>
x264— Workload (#pictures/size): $w_1 : 8/2, w_2 : 32/11, w_3 : 128/44$ ; Version: $v_1 : r2389, v_2 : r2744, v_3 : r2744$																				
$ec_1 : [h_2 \rightarrow h_1, w_3, v_3]$	SM	<b>0.97</b>	1.00	<b>0.99</b>	<b>0.97</b>	<b>0.92</b>	9	10	8	0	0.86	21	33	18	1.00	0.49	0.49	1	1	1.5
$ec_2 : [h_2 \rightarrow h_1, w_1, v_3]$	S	<b>0.96</b>	0.02	<b>0.96</b>	<b>0.76</b>	<b>0.79</b>	9	9	8	0	0.94	36	27	24	1.00	0.49	0.49	1	1	1.2
$ec_3 : [h_1, w_1 \rightarrow w_2, v_3]$	M	0.65	<b>0.06</b>	0.63	0.53	0.58	9	11	8	1	<b>0.89</b>	27	33	22	<b>0.96</b>	0.49	0.49	1	1	<b>5.0</b>
$ec_4 : [h_1, w_1 \rightarrow w_3, v_3]$	M	0.67	<b>0.06</b>	0.64	0.53	0.56	9	10	7	1	<b>0.88</b>	27	33	20	<b>0.96</b>	0.49	0.49	1	1	4.6
$ec_5 : [h_1, w_3, v_2 \rightarrow v_3]$	L	0.05	<b>1.64</b>	0.44	0.43	0.42	12	10	10	0	<b>0.83</b>	47	33	29	<b>1.00</b>	0.49	0.49	1	1	<b>6.2</b>
$ec_6 : [h_1, w_3, v_1 \rightarrow v_3]$	L	0.06	<b>1.54</b>	0.43	0.43	0.37	11	10	9	0	<b>0.80</b>	46	33	27	<b>0.99</b>	0.49	0.49	1	1	<b>6.2</b>
$ec_7 : [h_1, w_1 \rightarrow w_3, v_2 \rightarrow v_3]$	L	0.08	<b>1.03</b>	0.26	0.25	0.22	8	10	5	1	<b>0.78</b>	33	33	20	<b>0.94</b>	0.49	0.49	1	1	<b>6.2</b>
$ec_8 : [h_2 \rightarrow h_1, w_1 \rightarrow w_3, v_2 \rightarrow v_3]$	VL	0.09	14.51	0.26	0.23	0.25	8	9	5	2	0.58	<b>33</b>	<b>21</b>	<b>18</b>	<b>0.94</b>	0.49	0.49	1	1	<b>6.5</b>
SQLite— Workload: $w_1 : write - seq, w_2 : write - batch, w_3 : read - rand, w_4 : read - seq$ ; Version: $v_1 : 3.7.6.3, v_2 : 3.19.0$																				
$ec_1 : [h_3 \rightarrow h_2, w_1, v_1]$	S	<b>0.99</b>	0.37	<b>0.82</b>	0.35	0.31	5	2	2	0	1	13	9	8	1.00	N/A	N/A	N/A	N/A	1.9
$ec_2 : [h_3 \rightarrow h_2, w_2, v_1]$	M	<b>0.97</b>	1.08	<b>0.88</b>	0.40	0.49	5	5	4	0	1	10	11	9	1.00	N/A	N/A	N/A	N/A	1.1
$ec_3 : [h_2, w_1 \rightarrow w_2, v_1]$	S	<b>0.96</b>	1.27	<b>0.83</b>	0.40	0.35	2	3	1	0	1	9	9	7	0.99	N/A	N/A	N/A	N/A	1.2
$ec_4 : [h_2, w_3 \rightarrow w_4, v_1]$	M	0.50	<b>1.24</b>	0.43	0.17	0.43	1	1	0	0	1	4	2	2	<b>1.00</b>	N/A	N/A	N/A	N/A	1.0
$ec_5 : [h_1, w_1, v_1 \rightarrow v_2]$	M	<b>0.95</b>	1.00	0.79	0.24	0.29	2	4	1	0	1	12	11	7	0.99	N/A	N/A	N/A	N/A	<b>3.2</b>
$ec_6 : [h_1, w_2 \rightarrow w_1, v_1 \rightarrow v_2]$	L	0.51	<b>2.80</b>	0.44	0.25	0.30	3	4	1	1	0.31	7	11	6	<b>0.96</b>	N/A	N/A	N/A	N/A	<b>8.8</b>
$ec_7 : [h_2 \rightarrow h_1, w_2 \rightarrow w_1, v_1 \rightarrow v_2]$	VL	0.53	4.91	0.53	0.42	0.47	3	5	2	1	0.31	7	13	6	<b>0.97</b>	N/A	N/A	N/A	N/A	<b>7.2</b>
SaC— Workload: $w_1 : srad, w_2 : pfilter, w_3 : kmeans, w_4 : hotspot, w_5 : nw, w_6 : nboddy100, w_7 : nboddy150, w_8 : nboddy750, w_9 : gc, w_{10} : cg$																				
$ec_1 : [h_1, w_1 \rightarrow w_2, v_1]$	L	0.66	25.02	0.65	0.10	<b>0.79</b>	13	14	8	0	<b>0.88</b>	82	73	52	0.27	0.18	0.17	0.88	0.73	<b>136.3</b>
$ec_2 : [h_1, w_1 \rightarrow w_3, v_1]$	L	0.44	15.77	0.42	0.10	0.65	13	10	8	0	<b>0.91</b>	82	63	50	0.56	0.18	0.12	0.90	0.84	79.8
$ec_3 : [h_1, w_1 \rightarrow w_4, v_1]$	S	<b>0.93</b>	7.88	<b>0.93</b>	0.36	<b>0.90</b>	12	10	9	0	0.96	37	64	34	0.94	0.16	0.15	0.26	0.88	60.8
$ec_4 : [h_1, w_1 \rightarrow w_5, v_1]$	L	<b>0.96</b>	2.82	0.78	0.06	<b>0.81</b>	16	12	10	0	0.94	34	58	25	0.04	0.15	0.22	0.19	-0.29	<b>331.0</b>
$ec_5 : [h_1, w_2 \rightarrow w_3, v_1]$	M	0.76	<b>1.82</b>	<b>0.84</b>	0.67	<b>0.86</b>	17	11	9	1	<b>0.95</b>	79	61	47	0.55	0.27	0.13	0.83	0.88	46.0
$ec_6 : [h_1, w_2 \rightarrow w_4, v_1]$	S	<b>0.91</b>	5.54	<b>0.80</b>	0.00	<b>0.91</b>	14	11	8	0	0.85	64	65	31	-0.40	0.13	0.15	0.12	0.64	71.0
$ec_7 : [h_1, w_2 \rightarrow w_5, v_1]$	L	0.68	25.31	0.57	0.11	0.71	14	14	8	0	<b>0.88</b>	67	59	29	0.05	0.21	0.22	0.09	-0.13	<b>412.1</b>
$ec_8 : [h_1, w_3 \rightarrow w_4, v_1]$	L	0.68	<b>1.70</b>	0.56	0.00	<b>0.91</b>	14	13	9	1	<b>0.88</b>	57	67	36	0.34	0.11	0.14	0.05	0.67	<b>122.4</b>
$ec_9 : [h_1, w_3 \rightarrow w_5, v_1]$	VL	0.06	3.68	0.20	0.00	0.64	16	10	9	0	<b>0.90</b>	51	58	35	-0.52	0.11	0.21	0.06	-0.41	<b>1363.8</b>
$ec_{10} : [h_1, w_4 \rightarrow w_5, v_1]$	L	0.70	4.85	0.76	0.00	<b>0.75</b>	12	12	11	0	<b>0.95</b>	58	57	43	0.29	0.14	0.20	0.64	-0.14	<b>470.0</b>
$ec_{11} : [h_1, w_6 \rightarrow w_7, v_1]$	S	0.82	5.79	0.77	0.25	<b>0.88</b>	36	30	28	2	<b>0.89</b>	109	164	102	<b>0.96</b>	N/A	N/A	N/A	N/A	31.0
$ec_{12} : [h_1, w_6 \rightarrow w_8, v_1]$	S	<b>1.00</b>	0.52	<b>0.92</b>	<b>0.80</b>	<b>0.97</b>	38	30	22	6	0.94	51	53	43	0.99	N/A	N/A	N/A	N/A	12.4
$ec_{13} : [h_1, w_8 \rightarrow w_7, v_1]$	S	<b>1.00</b>	0.32	<b>0.92</b>	0.53	<b>0.99</b>	30	33	26	1	0.98	53	89	51	1.00	N/A	N/A	N/A	N/A	85.7
$ec_{14} : [h_1, w_9 \rightarrow w_{10}, v_1]$	L	0.24	4.85	0.56	0.44	0.77	22	21	18	3	0.69	<b>237</b>	<b>226</b>	<b>94</b>	<b>0.86</b>	N/A	N/A	N/A	N/A	69.9

ES: Expected severity of change (Sec. III-B); S: small change; SM: small medium change; M: medium change; L: large change; VL: very large change. LS: Linear shift transfer learning [44]  
 SaC workload descriptions: srad: random matrix generator; pfilter: particle filtering; hotspot: heat transfer differential equations; k-means: clustering; nw: optimal matching;  
 nboddy: simulation of dynamic systems; cg: conjugate gradient; gc: garbage collector. Hardware descriptions (ID: Type/CPU/Clock (GHz)/RAM (GiB)/Disk):  
 h1: NUC/4/1.30/15/SSD; h2: NUC/2/2.13/7/SCSI; h3: Station/2/2.8/3/SCSI; h4: Amazon/1/2.4/1/SSD; h5: Amazon/1/2.4/0.5/SSD; h6: Azure/1/2.4/3/SCSI  
 Metrics: M1: Pearson correlation; M2: Kullback-Leibler (KL) divergence; M3: Spearman correlation; M4/M5: Perc. of top/bottom conf.; M6/M7: Number of influential options in source/target;  
 M8/M9: Number of options agree/disagree; M10: Correlation btw importance of options; M11/M12: Number of interactions in the source/target; M13: Number of interactions agree on effects;  
 M14: Correlation btw the coeffs of models; M15/M16: Perc. of invalid conf. in source/target; M17: Perc. of invalid conf. common btw environments; M18: Correlation btw coeffs of models