

Table 3. RRMSE results

	%5					%10					%20				
	SSS	No FR	Symbolic	Genie3	RFI	SSS	No FR	Symbolic	Genie3	RFI	SSS	No FR	Symbolic	Genie3	RFI
OES10	0.7408	0.7439	0.7389	0.7429	0.7390	0.6593	0.6629	0.6575	0.6604	0.6594	0.5785	0.6569	0.5669	0.5676	0.5684
y ₁	0.7333	0.7366	0.7319	0.7301	0.7321	0.6411	0.6459	0.6412	0.6416	0.6423	0.5551	0.6424	0.5761	0.5716	0.5741
y ₂	0.6934	0.6977	0.6938	0.6967	0.6924	0.5780	0.5811	0.5771	0.5827	0.5814	0.4899	0.5788	0.5056	0.5057	0.5059
y ₃	0.7163	0.7173	0.7142	0.7215	0.7143	0.6072	0.6117	0.6089	0.6105	0.6098	0.5004	0.6093	0.5131	0.5208	0.5208
y ₄	0.7814	0.7799	0.7762	0.7749	0.7762	0.7163	0.7187	0.7119	0.7162	0.7127	0.6105	0.7136	0.5777	0.5851	0.5816
y ₅	0.8145	0.8088	0.8049	0.8059	0.8057	0.7047	0.7055	0.6970	0.7055	0.6963	0.6315	0.7086	0.6012	0.6048	0.6071
y ₆	0.8546	0.8526	0.8502	0.8505	0.8516	0.8112	0.8115	0.8059	0.8074	0.8105	0.7422	0.8038	0.6734	0.6754	0.6776
y ₇	0.7537	0.7597	0.7542	0.7590	0.7546	0.6793	0.6876	0.6822	0.6849	0.6823	0.5904	0.6805	0.5720	0.5791	0.5749
y ₈	0.7033	0.7096	0.7010	0.7149	0.7033	0.6256	0.6338	0.6277	0.6309	0.6292	0.5442	0.6284	0.5480	0.5490	0.5505
y ₉	0.8353	0.8319	0.8270	0.8505	0.8301	0.7551	0.7611	0.7530	0.7574	0.7552	0.6853	0.7639	0.6901	0.6907	0.6895
y ₁₀	0.6666	0.6729	0.6676	0.6788	0.6669	0.5730	0.5775	0.5703	0.5755	0.5738	0.4916	0.5789	0.4878	0.4916	0.4906
y ₁₁	0.6867	0.7005	0.6897	0.6867	0.6892	0.6287	0.6254	0.6261	0.6235	0.6260	0.5625	0.6256	0.5751	0.5721	0.5786
y ₁₂	0.6396	0.6486	0.6412	0.6494	0.6389	0.5507	0.5564	0.5502	0.5531	0.5520	0.4445	0.5501	0.4123	0.4143	0.4133
y ₁₃	0.8078	0.8063	0.8055	0.8035	0.8048	0.7757	0.7721	0.7676	0.7675	0.7706	0.7360	0.7369	0.6915	0.6725	0.6800
y ₁₄	0.6935	0.7015	0.6932	0.6977	0.6929	0.6107	0.6203	0.6140	0.6169	0.6145	0.5222	0.6066	0.4872	0.4896	0.4906
y ₁₅	0.7572	0.7600	0.7563	0.7562	0.7568	0.6546	0.6573	0.6522	0.6553	0.6552	0.5667	0.6493	0.5745	0.5783	0.5765
y ₁₆	0.7158	0.7180	0.7155	0.7101	0.7150	0.6367	0.6405	0.6348	0.6381	0.6388	0.5828	0.6337	0.5842	0.5801	0.5824
OES97	0.8036	0.8108	0.8056	0.8084	0.8065	0.7128	0.7445	0.7407	0.7430	0.7427	0.6421	0.6479	0.6402	0.6458	0.6406
y ₁	0.7279	0.7422	0.7334	0.7360	0.7345	0.6373	0.6741	0.6681	0.6704	0.6683	0.5497	0.5618	0.5485	0.5555	0.5488
y ₂	0.7566	0.7729	0.7672	0.7843	0.7683	0.6740	0.7224	0.7192	0.7222	0.7207	0.5826	0.6053	0.5940	0.5986	0.5924
y ₃	0.8819	0.8829	0.8766	0.8743	0.8806	0.8048	0.8339	0.8330	0.8329	0.8283	0.7566	0.7559	0.7504	0.7595	0.7530
y ₄	0.7641	0.7636	0.7565	0.7623	0.7538	0.5770	0.6248	0.6187	0.6213	0.6292	0.4971	0.5028	0.4975	0.5089	0.5116
y ₅	0.8349	0.8492	0.8478	0.8492	0.8485	0.7964	0.8139	0.8017	0.8073	0.8024	0.7665	0.7638	0.7598	0.7651	0.7582
y ₆	0.8587	0.8663	0.8642	0.8641	0.8636	0.7482	0.7769	0.7794	0.7784	0.7733	0.7053	0.7026	0.7011	0.7000	0.6919
y ₇	0.8369	0.8370	0.8342	0.8342	0.8330	0.7250	0.7733	0.7694	0.7723	0.7668	0.6357	0.6352	0.6350	0.6356	0.6319
y ₈	0.7536	0.7651	0.7562	0.7616	0.7583	0.6436	0.6876	0.6825	0.6841	0.6859	0.5251	0.5389	0.5266	0.5359	0.5289
y ₉	0.7333	0.7343	0.7261	0.7234	0.7283	0.5936	0.6425	0.6338	0.6352	0.6452	0.5003	0.5081	0.4927	0.5006	0.5009
y ₁₀	0.8113	0.8248	0.8204	0.8257	0.8200	0.7590	0.7719	0.7676	0.7713	0.7650	0.6844	0.7003	0.6872	0.6984	0.6945
y ₁₁	0.8276	0.8371	0.8305	0.8331	0.8326	0.7832	0.7976	0.7993	0.8011	0.7994	0.7054	0.7104	0.7062	0.7068	0.6963
y ₁₂	0.7965	0.8059	0.8016	0.8030	0.8012	0.7159	0.7358	0.7353	0.7382	0.7350	0.6374	0.6427	0.6374	0.6448	0.6320
y ₁₃	0.7763	0.7842	0.7779	0.7828	0.7776	0.6585	0.6792	0.6785	0.6843	0.6919	0.5968	0.6057	0.6004	0.6029	0.5972
y ₁₄	0.8471	0.8620	0.8585	0.8624	0.8609	0.8343	0.8625	0.8528	0.8567	0.8544	0.7812	0.7937	0.7815	0.7880	0.7811
y ₁₅	0.8241	0.8157	0.8143	0.8122	0.8159	0.7085	0.7399	0.7402	0.7390	0.7413	0.6650	0.6520	0.6491	0.6531	0.6521
y ₁₆	0.8271	0.8300	0.8242	0.8257	0.8276	0.7455	0.7761	0.7712	0.7731	0.7763	0.6841	0.6867	0.6752	0.6796	0.6792
ATP1D	0.6623	0.6574	0.6497	0.6489	0.6495	0.5781	0.5765	0.5811	0.5774	0.5791	0.6561	0.6670	0.6638	0.6536	0.6635
y ₁	0.7238	0.7195	0.7174	0.7100	0.7110	0.6549	0.6398	0.6526	0.6577	0.6428	0.7355	0.7573	0.7508	0.7349	0.7490
y ₂	0.7264	0.7163	0.7128	0.6986	0.7033	0.6201	0.6113	0.6133	0.6140	0.6093	0.7046	0.7101	0.7139	0.7037	0.7094
y ₃	0.6364	0.6331	0.6228	0.6201	0.6193	0.5599	0.5554	0.5600	0.5466	0.5606	0.6171	0.6250	0.6243	0.6146	0.6261
y ₄	0.5759	0.5675	0.5560	0.5653	0.5659	0.4852	0.4922	0.4958	0.4849	0.4961	0.5458	0.5597	0.5470	0.5424	0.5509
y ₅	0.7318	0.7350	0.7258	0.7236	0.7227	0.6546	0.6554	0.6575	0.6633	0.6568	0.7816	0.7862	0.7947	0.7774	0.7901
y ₆	0.5792	0.5731	0.5635	0.5760	0.5745	0.4935	0.5046	0.5071	0.4978	0.5091	0.5523	0.5637	0.5520	0.5487	0.5555
ATP7D	0.8053	0.8047	0.8007	0.7974	0.8055	0.7144	0.7279	0.7701	0.7151	0.7270	0.6561	0.6670	0.6638	0.6536	0.6635
y ₁	0.8801	0.8760	0.8741	0.8855	0.8755	0.8025	0.8215	0.8540	0.8207	0.8221	0.7355	0.7573	0.7508	0.7349	0.7490
y ₂	0.8812	0.8730	0.8743	0.8704	0.8773	0.7562	0.7535	0.8379	0.7519	0.7644	0.7046	0.7101	0.7139	0.7037	0.7094
y ₃	0.7569	0.7558	0.7480	0.7371	0.7553	0.6819	0.7035	0.7270	0.6725	0.6805	0.6171	0.6250	0.6243	0.6146	0.6261
y ₄	0.7098	0.7148	0.7094	0.6983	0.7204	0.6003	0.6155	0.6600	0.5924	0.6145	0.5458	0.5597	0.5470	0.5424	0.5509
y ₅	0.8892	0.8881	0.8830	0.8876	0.8803	0.8381	0.8541	0.8919	0.8551	0.8597	0.7816	0.7862	0.7947	0.7774	0.7901
y ₆	0.7149	0.7205	0.7153	0.7054	0.7244	0.6077	0.6195	0.6496	0.5980	0.6209	0.5523	0.5637	0.5520	0.5487	0.5555
MP6	0.8260	0.8478	0.8481	0.8282	0.8291	0.7126	0.7184	0.7218	0.7217	0.7222	0.6039	0.6172	0.6178	0.6180	0.6201
y ₁	0.8239	0.8461	0.8465	0.8262	0.8271	0.7098	0.7157	0.7192	0.7190	0.7196	0.6015	0.6148	0.6153	0.6156	0.6177
y ₂	0.8250	0.8470	0.8474	0.8273	0.8281	0.7113	0.7171	0.7206	0.7204	0.7210	0.6027	0.6160	0.6166	0.6168	0.6189
y ₃	0.8284	0.8497	0.8500	0.8305	0.8314	0.7159	0.7214	0.7249	0.7247	0.7253	0.6067	0.6201	0.6206	0.6209	0.6229
y ₄	0.8266	0.8483	0.8486	0.8288	0.8297	0.7135	0.7192	0.7226	0.7225	0.7231	0.6046	0.6180	0.6185	0.6188	0.6208
MP5	0.8136	0.7811	0.8175	0.8176	0.8178	0.7411	0.7983	0.7299	0.7313	0.7410	0.6046	0.6163	0.6147	0.6161	0.6147
y ₁	0.8150	0.7826	0.8188	0.8190	0.8191	0.7430	0.7996	0.7313	0.7327	0.7427	0.6059	0.6175	0.6158	0.6173	0.6158
y ₂	0.8086	0.7761	0.8125	0.8127	0.8128	0.7352	0.7937	0.7248	0.7262	0.7354	0.6000	0.6117	0.6102	0.6117	0.6102
y ₃	0.8175	0.7850	0.8214	0.8215	0.8216	0.7455	0.8017	0.7338	0.7352	0.7452	0.6082	0.6199	0.6182	0.6196	0.6182
y ₄	0.8133	0.7808	0.8172	0.8174	0.8175	0.7406	0.7980	0.7297	0.7311	0.7406	0.6044	0.6162	0.6146	0.6160	0.6146
Water Quality	0.9762	0.9648	0.9743	0.9772	0.9862	0.9616	0.9497	0.9609	0.9674	0.9686	0.9464	0.9350	0.9474	0.9534	0.9545
y ₁	0.9922	0.9797	0.9847	0.9878	0.9883	0.9772	0.9637	0.9688	0.9720	0.9688	0.9650	0.9510	0.9566	0.9609	0.9650
y ₂	1.0181	1.0127	1.0161	1.0137	1.0064	1.0198	1.0109	1.0127	1.0153	1.0080	1.0073	0.9985	1.0076	1.0086	1.0075
y ₃	0.9986	0.9805	0.9848	0.9849	0.9956	0.9918	0.9777	0.9849	0.9914	0.9864	0.9770	0.9708	0.9695	0.9794	0.9948
y ₄	0.9636	0.9589	0.9731	0.9802	0.9816	0.9502	0.9445	0.9555	0.9640	0.9685	0.9255	0.9240	0.9290	0.9410	0.9461
y ₅	0.9857	0.9779	0.9876	0.9893	0.9983	0.9641	0.9521	0.9705	0.9718	0.9799	0.9504	0.9429	0.9580	0.9581	0.9584
y ₆	0.8971	0.8808	0.9109	0.9191	0.9432	0.8835	0.8746	0.8887	0.9136	0.9283	0.8659	0.8584	0.8687	0.8924	0.8779
y ₇	1.0091	0.9957	1.0061	1.0072	1.0090	1.0009	0.9812	0.9997	1.0041	1.0081	0.9959	0.9739	0.9931	0.9990	0.9983
y ₈															

Table 4. RRMSE results (continued)

			%5					%10					%20		
	SSS	No FR	Symbolic	Genie3	RFI	SSS	No FR	Symbolic	Genie3	RFI	SSS	No FR	Symbolic	Genie3	RFI
Jura	0.7908	0.8121	0.7914	0.7912	0.7937	0.7328	0.8299	0.7332	0.7315	0.7329	0.6952	0.6960	0.6906	0.6901	0.6910
y ₁	0.8314	0.8439	0.8316	0.8286	0.8296	0.7838	0.8763	0.7811	0.7817	0.7834	0.7488	0.7451	0.7422	0.7413	0.7444
y ₂	0.7778	0.7658	0.7540	0.7801	0.7803	0.6720	0.8505	0.6760	0.6851	0.6848	0.6462	0.6330	0.6355	0.6440	0.6471
y ₃	0.7633	0.8266	0.7887	0.7649	0.7713	0.7425	0.7628	0.7425	0.7278	0.7304	0.6905	0.7100	0.6941	0.6849	0.6814
Edm	0.9350	0.9096	0.9164	0.9115	0.9041	0.8380	0.8373	0.8301	0.8363	0.8261	0.7883	0.7989	0.7880	0.7838	0.7804
y ₁	0.9689	0.9510	0.9618	0.9570	0.9534	0.8882	0.8727	0.8658	0.8798	0.8686	0.8319	0.8335	0.8027	0.8008	0.7950
y ₂	0.9011	0.8682	0.8709	0.8659	0.8547	0.7878	0.8019	0.7943	0.7927	0.7836	0.7447	0.7642	0.7733	0.7667	0.7657
Friedman	0.9895	0.9861	0.9921	0.9934	0.9942	0.9767	0.9949	0.9768	0.9761	0.9755	0.9583	0.9668	0.9594	0.9586	0.9613
y ₁	1.0113	0.9972	1.0029	1.0036	1.0076	1.0165	1.0049	1.0177	1.0165	1.0159	1.0142	1.0058	1.0137	1.0122	1.0103
y ₂	1.0144	1.0054	1.0162	1.0128	1.0236	1.0182	1.0123	1.0169	1.0142	1.0135	1.0137	1.0136	1.0148	1.0153	1.0225
y ₃	1.0131	0.9895	1.0104	1.0114	1.0126	1.0174	1.0086	1.0160	1.0153	1.0134	1.0174	1.0103	1.0187	1.0180	1.0152
y ₄	1.0261	1.0083	1.0172	1.0192	1.0261	1.0221	1.0127	1.0259	1.0242	1.0245	1.0307	1.0200	1.0318	1.0292	1.0342
y ₅	1.0170	1.0014	1.0159	1.0158	1.0071	1.0132	1.0065	1.0144	1.0159	1.0149	1.0178	1.0113	1.0229	1.0215	1.0286
y ₆	0.8550	0.9148	0.8899	0.8974	0.8882	0.7728	0.9243	0.7701	0.7704	0.7710	0.6559	0.7397	0.6544	0.6552	0.6569
Wisconsin Cancer	1.0002	0.9929	0.9909	0.9932	0.9969	1.0066	0.9980	0.9879	0.9989	0.9919	0.9729	0.9779	0.9725	0.9943	0.9708
y ₁	1.0062	1.0010	0.9950	0.9995	1.0062	1.0170	0.9990	0.9839	0.9996	0.9904	0.9667	0.9741	0.9532	1.0087	0.9661
y ₂	0.9942	0.9847	0.9867	0.9869	0.9875	0.9961	0.9969	0.9919	0.9981	0.9934	0.9791	0.9816	0.9917	0.9798	0.9755
CPU	0.6532	0.6501	0.6569	0.6545	0.8545	0.6358	0.6315	0.6354	0.6361	0.7229	0.6263	0.6196	0.6259	0.6266	0.7502
y ₁	0.3503	0.3468	0.3537	0.3491	0.6945	0.3320	0.3257	0.3363	0.3327	0.4577	0.3208	0.3111	0.3236	0.3206	0.5429
y ₂	0.3521	0.3491	0.3554	0.3505	0.6960	0.3336	0.3276	0.3378	0.3342	0.4611	0.3224	0.3129	0.3253	0.3221	0.5470
y ₃	1.0306	1.0157	1.0329	1.0346	1.0218	1.0158	1.0068	1.0142	1.0186	1.0166	1.0170	1.0081	1.0107	1.0202	1.0193
y ₄	0.8798	0.8889	0.8856	0.8839	1.0057	0.8617	0.8660	0.8534	0.8588	0.9562	0.8448	0.8464	0.8438	0.8436	0.8917