kNNR	Best	BEM	IEW	Caruana	RSWH	RSWHid	WCH	SCH
automobile	24.00(5)	23.36(3)	23.28(2)	23.96(4)	26.03(6)	**22.85**(1)	21.17	12.49
fertility	98.29(2)	99.48(5)	99.28(4)	98.42(3)	**97.70**(1)	104.19(6)	96.30	74.70
flow	87.64(5)	85.73(3)	85.73(4)	85.60(2)	94.66(6)	**59.72**(1)	80.43	54.25
forest	103.34(3)	107.01(6)	106.75(5)	104.30(4)	**99.33**(1)	99.70(2)	103.24	93.16
servo	48.98(3)	51.81(5)	51.18(4)	52.48(6)	**43.95**(1)	44.21(2)	41.53	33.22
slump	95.02(5)	91.41(4)	91.33(3)	90.48(2)	100.93(6)	**89.88**(1)	85.60	58.69
traffic	34.54(5)	34.29(4)	34.22(2)	34.24(3)	**34.11**(1)	34.97(6)	32.99	22.68
wine_red	84.85(6)	82.28(2)	82.33(3)	83.20(5)	83.13(4)	**66.28**(1)	84.31	53.25
wine_white	86.12(6)	81.75(3)	81.79(4)	82.51(5)	81.62(2)	**67.08**(1)	83.17	51.17
Avg. Rank	(4.44)	(3.89)	(3.44)	(3.78)	(3.11)	(**2.33**)	-	-
Ridge	Best	BEM	IEW	Caruana	RSWH	RSWHid	WCH	SCH
automobile	19.79(6)	17.76(2)	17.79(3)	**17.62**(1)	18.80(4)	19.40(5)	17.78	9.71
fertility	102.37(2)	102.89(5)	102.88(4)	102.40(3)	**97.77**(1)	106.99(6)	102.33	97.20
flow	65.66(3)	66.46(6)	66.46(5)	65.93(4)	64.64(2)	**63.24**(1)	65.30	63.78
forest	99.01(2)	99.45(5)	99.45(4)	99.22(3)	**98.26**(1)	99.69(6)	98.98	97.74
servo	**62.34**(1)	62.43(3)	62.43(4)	62.34(2)	63.39(6)	63.08(5)	61.87	61.44
slump	86.55(3)	86.96(6)	86.96(5)	86.81(4)	85.69(2)	**78.64**(1)	86.18	83.92
traffic	39.81(4)	40.35(6)	40.31(5)	39.73(3)	37.21(2)	**36.40**(1)	39.50	38.17
wine_red	**64.85**(1)	65.81(6)	65.77(5)	64.87(2)	64.89(3)	64.94(4)	64.83	51.75
wine_white	72.96(3)	74.63(6)	74.56(5)	72.95(2)	72.96(4)	**72.89**(1)	72.95	62.54
Avg. Rank	(2.78)	(5.00)	(4.44)	(**2.67**)	(2.78)	(3.33)	-	-
Lasso	Best	BEM	IEW	Caruana	RSWH	RSWHid	WCH	SCH
automobile	18.55(5)	18.50(3)	18.50(2)	18.53(4)	**18.29**(1)	19.42(6)	18.40	18.22
fertility	92.95(3)	**92.92**(1)	92.92(2)	92.95(3)	93.04(5)	103.44(6)	92.80	92.56
flow	65.12(3)	66.00(6)	66.00(5)	65.46(4)	64.18(2)	**62.61**(1)	65.12	63.98
forest	99.50(2)	99.60(4)	99.60(5)	99.55(3)	**98.25**(1)	99.65(6)	99.47	99.03
servo	64.85(2)	74.33(6)	72.62(5)	72.25(4)	**63.67**(1)	65.35(3)	63.28	48.76
slump	85.84(3)	86.57(6)	86.57(5)	86.08(4)	85.55(2)	**80.71**(1)	85.84	83.56
traffic	**33.98**(1)	34.70(4)	34.68(3)	34.83(5)	34.68(2)	49.65(6)	33.92	29.30
wine_red	74.83(3)	84.81(6)	83.94(5)	83.60(4)	74.53(2)	**65.75**(1)	74.83	60.26
wine_white	78.77(3)	85.76(6)	85.24(5)	84.62(4)	78.54(2)	**74.22**(1)	78.77	64.46
Avg. Rank	(2.83)	(4.67)	(4.11)	(3.94)	(**2.00**)	(3.44)	-	-
SVR	Best	BEM	IEW	Caruana	RSWH	RSWHid	WCH	SCH
automobile	19.78(3)	40.09(6)	23.65(5)	20.43(4)	19.15(2)	**18.33**(1)	19.14	5.42
fertility	97.73(4)	**93.79**(1)	93.88(2)	99.25(5)	96.52(3)	102.74(6)	91.14	57.22
flow	72.44(4)	73.47(6)	70.75(2)	72.71(5)	72.02(3)	**63.16**(1)	61.57	15.26
forest	98.09(2)	99.11(4)	99.42(5)	**98.00**(1)	98.60(3)	100.18(6)	97.05	85.46
servo	20.81(3)	61.09(6)	45.90(5)	23.17(4)	**18.52**(1)	18.75(2)	19.67	10.12
slump	93.90(5)	132.65(6)	91.06(4)	85.82(2)	**77.52**(1)	87.43(3)	85.16	18.96
traffic	48.05(5)	37.85(3)	35.86(2)	**34.84**(1)	43.16(4)	49.83(6)	32.95	9.81
wine_red	66.14(6)	62.47(5)	62.19(4)	60.35(3)	**57.32**(1)	57.74(2)	65.30	17.22
wine_white	73.11(6)	72.57(5)	67.11(4)	62.84(3)	57.93(2)	**57.93**(1)	70.96	10.15
Avg. Rank	(4.22)	(4.67)	(3.67)	(3.11)	(**2.22**)	(3.11)	-	-

Table 7: The 3-fold cross validation relative mean squared error and Friedman ranks for all datasets when the best hyperparameter configuration trial (Best), simple average (BEM), the inverse of the error (IEW), Caruana method (Caruana) and non-hyperparametric stacking stepwise regression over residual with the heuristic to provide zero weights to some models adding instance description to the ensemble (RSWHid) or not (RSWH), all taking into account several baseline systems (kNNR, Ridge, Lasso and SVR) and the RS sampling strategy. The scores for the cheating approaches WCH and SCH are also shown, but they were not included in the computation of the Friedman ranks.