

Comparing CART and CTree: A simulation study

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	MSE		Terminal Node		
	Mean	SD	Mean	20th	80th
CART	4.12	0.413	15	14	16
Pruned CART	4.19	0.442	14	13	16
Pruned CART (1-SE)	4.55	0.509	9	6	11
CTree	4.14	0.409	14	13	15
Linear Regression	1.03	0.093			

Table 1: Regression model

	MSE		Terminal Node		
	Mean	SD	Mean	20th	80th
CART	1.26	0.151	7	6	8
Pruned CART	1.22	0.137	4	3	5
Pruned CART (1-SE)	1.25	0.139	3	3	4
CTree	1.27	0.154	4	3	4
Linear Regression	2.04	0.179			

Table 2: Tree model

	MSE		Terminal Node		
	Mean	SD	Mean	20th	80th
CART	1.39	0.138	13	11	15
Pruned CART	1.37	0.131	6	3	9
Pruned CART (1-SE)	1.37	0.133	3	2	3
CTree	1.34	0.126	5	4	6
Linear Regression	1.17	0.106			

Table 3: Hybrid model

	Mean (MSE)	Mean (SD)	Type I Error (Mean)
CART	0.65	0.07	1
Pruned CART	0.99	0.091	0.0559
Pruned CART (1-SE)	1	0.089	3e-04
CTree	0.99	0.089	0.0513
Linear Regression	0.97	0.088	

Table 4: Type I error model

Figure 5

