GPTIPS pareto front report

10-Apr-2019 18:51:15

Config file: Y3_config.m

Number of models on front: 6

Total models: 100

This report shows the expressional complexity/performance characteristics (on training data) of symbolic models on the pareto front.

Numerical precision is reduced for display purposes.

Click on column headers to sort models by expressional complexity and goodness of fit (R^2).

Model ID	Goodness of fit (R^2)	Model complexity	Model
9	0.95	320	$3.33\ x_1 - 0.0237\ x_2 - 3.99\ x_3 + 84.8\ x_1^2\ x_3^2 + 17.1\ x_1\ x_3 - 0.00153\ x_2\ x_3 - 2.23e\text{-}4\ x_1\ x_2^2 - 39.8\ x_1\ x_3^2 - 29.3\ x_1^2\ x_3 + 0.0128\ x_1^3\ x_2 + 0.38\ x_2\ x_3^2 - 9.33e\text{-}4\ x_2^2\ x_3 - 1.22\ x_1^2 + 2.23e\text{-}4\ x_2^2 + 47.5\ x_3^2 - 0.572\ x_1\ x_2\ x_3^2 + 0.00131\ x_1\ x_2^2\ x_3 + 0.447$
19	0.931	278	$3.49\ x_1 - 0.014\ x_2 - 0.115\ x_3 + 0.00588\ x_1^2\ x_3^2 - 0.786\ x_1\ x_3 - 1.03e\text{-}4\ x_2\ x_3 - 1.03e\text{-}4\ x_1\ x_2^2 - 12.2\ x_1\ x_3^2 + 0.0106\ x_1^3\ x_2 - 0.101\ x_2\ x_3^2 - 6.63e\text{-}5\ x_2^2\ x_3 - 2.51\ x_1^2 + 1.03e\text{-}4\ x_2^2 + 55.0\ x_3^2 + 0.152\ x_1\ x_2\ x_3^2 + 0.0495$
25	0.949	306	$4.65\ x_1 - 0.0237\ x_2 - 1.88\ x_3 + 78.7\ x_1^2\ x_3^2 + 8.85\ x_1\ x_3 - 0.00151\ x_2\ x_3 - 2.23e\text{-}4\ x_1\ x_2^2 - 33.8\ x_1\ x_3^2 - 23.3\ x_1^2\ x_3 + 0.0128\ x_1^3\ x_2 + 0.371\ x_2\ x_3^2 - 9.21e\text{-}4\ x_2^2\ x_3 - 2.12\ x_1^2 + 2.23e\text{-}4\ x_2^2 + 47.1\ x_3^2 - 0.558\ x_1\ x_2\ x_3^2 + 0.00129\ x_1\ x_2^2\ x_3 + 0.0698$
26	0.856	205	$2.65e\text{-}6\ x_1 - 0.0122\ x_2 + 2.77\ x_3 + 19.0\ x_1\ x_3 - 2.48e\text{-}5\ x_2\ x_3 - 2.48e\text{-}5\ x_1\ x_2^2 + 0.0111\ x_1^3\ x_2 + 0.256\ x_2\ x_3^2 - 2.65e\text{-}6\ x_2^2\ x_3 - 2.37\ x_1^2 + 2.48e\text{-}5\ x_2^2 - 0.385\ x_1\ x_2\ x_3^2 + 1.25$
28	0.922	235	$5.58e\text{-}5\ x_1 - 3.55e\text{-}4\ x_2 + 0.782\ x_1\ x_3 + 6.25e\text{-}5\ x_2\ x_3 - 4.44e\text{-}6\ x_1\ x_2^2 - 11.8\ x_1\ x_3^2 - 0.0932\ x_1^2\ x_3 + 0.00111\ x_1^3\ x_2 - 0.0853\ x_2\ x_3^2 - 5.58e\text{-}5\ x_2^2\ x_3 + 0.0538\ x_1^2 + 4.44e\text{-}6\ x_2^2 + 52.8\ x_3^2 + 0.128\ x_1\ x_2\ x_3^2 - 6.7e\text{-}5\ x_1\ x_2^2\ x_3 + 0.488$
55	0.95	328	$3.29\ x_1 - 0.0237\ x_2 - 3.8\ x_3 + 85.6\ x_1^2\ x_3^2 + 17.3\ x_1\ x_3 - 0.00153\ x_2\ x_3 - 2.23e\text{-}4\ x_1\ x_2^2 - 40.1\ x_1\ x_3^2 - 29.7\ x_1^2\ x_3 + 0.0128\ x_1^3\ x_2 + 0.381\ x_2\ x_3^2 - 9.35e\text{-}4\ x_2^2\ x_3 - 1.18\ x_1^2 + 2.23e\text{-}4\ x_2^2 + 47.0\ x_3^2 - 0.573\ x_1\ x_2\ x_3^2 + 0.00131\ x_1\ x_2^2\ x_3 + 0.437$

GPTIPS - the symbolic data mining platform for MATLAB