6 Available Models

The models below are available in train. The code behind these protocols can be obtained using the function <code>getModelInfo</code> or by going to the github repository.

Model	$method$ Value $\ \square$	Type	Libra
	Search:		
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AdaBoost Classification Trees	adaboost	Classification	fastAdal
AdaBoost.M1	AdaBoost.M1	Classification	adabag,
Adaptive Mixture Discriminant Analysis	amdai	Classification	adaptD <i>F</i>
Adaptive- Network-Based Fuzzy Inference System	ANFIS	Regression	frbs
Adjacent Categories Probability Model for Ordinal Data	vglmAdjCat	Classification	VGAM
Bagged AdaBoost	AdaBag	Classification	adabag,
Bagged CART	treebag	Classification, Regression	ipred, pl

Bagged FDA using gCV Pruning	bagFDAGCV	Classification	earth
Bagged Flexible Discriminant Analysis	bagFDA	Classification	earth, m
Bagged Logic Regression	logicBag	Classification, Regression	logicFS
Bagged MARS	bagEarth	Classification, Regression	earth
Bagged MARS using gCV Pruning	bagEarthGCV	Classification, Regression	earth
Bagged Model	bag	Classification, Regression	caret
Bayesian Additive Regression Trees	bartMachine	Classification, Regression	bartMac
Bayesian Generalized Linear Model	bayesglm	Classification, Regression	arm

Bayesian Regularized Neural Networks	brnn	Regression	brnn
Bayesian Ridge Regression	bridge	Regression	monom\
Bayesian Ridge Regression (Model Averaged)	blassoAveraged	Regression	monom\
Binary Discriminant Analysis	binda	Classification	binda
Boosted Classification Trees	ada	Classification	ada, plyı
Boosted Generalized Additive Model	gamboost	Classification, Regression	mboost, import
Boosted Generalized Linear Model	glmboost	Classification, Regression	plyr, mb
Boosted Linear Model	BstLm	Classification, Regression	bst, plyr

Boosted Logistic Regression	LogitBoost	Classification	caTools
Boosted Smoothing Spline	bstSm	Classification, Regression	bst, plyr
Boosted Tree	blackboost	Classification, Regression	party, m plyr
Boosted Tree	bstTree	Classification, Regression	bst, plyr
C4.5-like Trees	J48	Classification	RWeka
C5.0	C5.0	Classification	C50, ply
CART	rpart	Classification, Regression	rpart
CART	rpart1SE	Classification, Regression	rpart
CART	rpart2	Classification, Regression	rpart
CART or Ordinal Responses	rpartScore	Classification	rpartScc

CHi-squared Automated Interaction Detection	chaid	Classification	CHAID
Conditional Inference Random Forest	cforest	Classification, Regression	party
Conditional Inference Tree	ctree	Classification, Regression	party
Conditional Inference Tree	ctree2	Classification, Regression	party
Continuation Ratio Model for Ordinal Data	vglmContRatio	Classification	VGAM
Cost-Sensitive C5.0	C5.0Cost	Classification	C50, ply
Cost-Sensitive CART	rpartCost	Classification	rpart, ply
Cubist	cubist	Regression	Cubist
Cumulative Probability Model for Ordinal Data	vglmCumulative	Classification	VGAM

DeepBoost	deepboost	Classification	deepboo
Diagonal Discriminant Analysis	dda	Classification	sparsed
Distance Weighted Discrimination with Polynomial Kernel	dwdPoly	Classification	kerndwd
Distance Weighted Discrimination with Radial Basis Function Kernel	dwdRadial	Classification	kernlab,
Dynamic Evolving Neural-Fuzzy Inference System	DENFIS	Regression	frbs
Elasticnet	enet	Regression	elasticne

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Ensembles of Generalized Linear Models	randomGLM	Classification, Regression	random(
eXtreme Gradient Boosting	xgbDART	Classification, Regression	xgboost
eXtreme Gradient Boosting	xgbLinear	Classification, Regression	xgboost
eXtreme Gradient Boosting	xgbTree	Classification, Regression	xgboost
Extreme Learning Machine	elm	Classification, Regression	elmNN

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Factor-Based Linear Discriminant Analysis	RFlda	Classification	HiDimD,
Flexible Discriminant Analysis	fda	Classification	earth, m
Fuzzy Inference Rules by Descent Method	FIR.DM	Regression	frbs
Fuzzy Rules Using Chi's Method	FRBCS.CHI	Classification	frbs
Fuzzy Rules Using Genetic Cooperative- Competitive Learning and Pittsburgh	FH.GBML	Classification	frbs

Fuzzy Rules Using the Structural Learning Algorithm on Vague Environment	SLAVE	Classification	frbs
Fuzzy Rules via MOGUL	GFS.FR.MOGUL	Regression	frbs
Fuzzy Rules via Thrift	GFS.THRIFT	Regression	frbs
Fuzzy Rules with Weight Factor	FRBCS.W	Classification	frbs
Gaussian Process	gaussprLinear	Classification, Regression	kernlab
Gaussian Process with Polynomial Kernel	gaussprPoly	Classification, Regression	kernlab
Gaussian Process with Radial Basis Function Kernel	gaussprRadial	Classification, Regression	kernlab

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Generalized Additive Model using LOESS	gamLoess	Classification, Regression	gam
Generalized Additive Model using Splines	bam	Classification, Regression	mgcv
Generalized Additive Model using Splines	gam	Classification, Regression	mgcv
Generalized Additive Model using Splines	gamSpline	Classification, Regression	gam
Generalized Linear Model	glm	Classification, Regression	
Generalized Linear Model with Stepwise Feature Selection	glmStepAIC	Classification, Regression	MASS
Generalized Partial Least Squares	gpls	Classification	gpls

Genetic Lateral Tuning and Rule Selection of Linguistic Fuzzy Systems	GFS.LT.RS	Regression	frbs
glmnet	glmnet	Classification, Regression	glmnet, l
glmnet	glmnet_h2o	Classification, Regression	h2o
Gradient Boosting Machines	gbm_h2o	Classification, Regression	h2o
Greedy Prototype Selection	protoclass	Classification	proxy, protocla
Heteroscedastic Discriminant Analysis	hda	Classification	hda
High Dimensional Discriminant Analysis	hdda	Classification	HDclass

High- Dimensional Regularized Discriminant Analysis	hdrda	Classification	sparsed
Hybrid Neural Fuzzy Inference System	HYFIS	Regression	frbs
Independent Component Regression	icr	Regression	fastICA
k-Nearest Neighbors	kknn	Classification, Regression	kknn
k-Nearest Neighbors	knn	Classification, Regression	
L2 Regularized Linear Support Vector Machines with Class Weights	svmLinearWeights2	Classification	Liblineal
L2 Regularized Support Vector Machine (dual) with Linear Kernel	svmLinear3	Classification, Regression	Liblineal

Learning Vector Quantization	lvq	Classification	class
Least Angle Regression	lars	Regression	lars
Least Angle Regression	lars2	Regression	lars
Least Squares Support Vector Machine	IssvmLinear	Classification	kernlab
Least Squares Support Vector Machine with Polynomial Kernel	IssvmPoly	Classification	kernlab
Least Squares Support Vector Machine with Radial Basis Function Kernel	IssvmRadial	Classification	kernlab
Linear Discriminant Analysis	lda	Classification	MASS
Linear Discriminant Analysis	lda2	Classification	MASS

Linear Discriminant Analysis with Stepwise Feature Selection	stepLDA	Classification	klaR, M <i>i</i>
Linear Distance Weighted Discrimination	dwdLinear	Classification	kerndwd
Linear Regression	lm	Regression	
Linear Regression with Backwards Selection	leapBackward	Regression	leaps
Linear Regression with Forward Selection	leapForward	Regression	leaps
Linear Regression with Stepwise Selection	leapSeq	Regression	leaps

Linear Regression with Stepwise Selection	ImStepAIC	Regression	MASS
Linear Support Vector Machines with Class Weights	svmLinearWeights	Classification	e1071
Localized Linear Discriminant Analysis	loclda	Classification	klaR
Logic Regression	logreg	Classification, Regression	LogicRe
Logistic Model Trees	LMT	Classification	RWeka
Maximum Uncertainty Linear Discriminant Analysis	Mlda	Classification	HiDimD
Mixture Discriminant Analysis	mda	Classification	mda

Model Averaged Naive Bayes Classifier	manb	Classification	bnclassi
Model Averaged Neural Network	avNNet	Classification, Regression	nnet
Model Rules	M5Rules	Regression	RWeka
Model Tree	M5	Regression	RWeka
Monotone Multi- Layer Perceptron Neural Network	monmlp	Classification, Regression	monmlp
Multi-Layer Perceptron	mlp	Classification, Regression	RSNNS
Multi-Layer Perceptron	mlpWeightDecay	Classification, Regression	RSNNS
Multi-Layer Perceptron, multiple layers	mlpWeightDecayML	Classification, Regression	RSNNS
Multi-Layer Perceptron, with multiple layers	mlpML	Classification, Regression	RSNNS

Multi Step		
Multi-Step Adaptive MCP- msaenet Net	Classification, Regression	msaene
Multilayer Perceptron Network by Stochastic Gradient Descent	Classification, Regression	FCNN4F
Multilayer Perceptron Metwork with Dropout	Classification, Regression	keras
Multilayer Perceptron Network with Dropout	Classification	keras
Multilayer Perceptron Network with mlpKerasDecay Weight Decay	Classification, Regression	keras
Multilayer Perceptron Network with Weight Decay	Classification	keras

Multivariate Adaptive Regression Spline	earth	Classification, Regression	earth
Multivariate Adaptive Regression Splines	gcvEarth	Classification, Regression	earth
Naive Bayes	naive_bayes	Classification	naiveba
Naive Bayes	nb	Classification	klaR
Naive Bayes Classifier	nbDiscrete	Classification	bnclassi
Naive Bayes Classifier with Attribute Weighting	awnb	Classification	bnclassi
Nearest Shrunken Centroids	pam	Classification	pamr
Negative Binomial Generalized Linear Model	glm.nb	Regression	MASS

Neural Network	mxnet	Classification, Regression	mxnet
Neural Network	mxnetAdam	Classification, Regression	mxnet
Neural Network	neuralnet	Regression	neuralne
Neural Network	nnet	Classification, Regression	nnet
Neural Networks with Feature Extraction	pcaNNet	Classification, Regression	nnet
Non-Convex Penalized Quantile Regression	rqnc	Regression	rqPen
Non-Informative Model	null	Classification, Regression	
Non-Negative Least Squares	nnls	Regression	nnls

Oblique Random Forest	ORFlog	Classification	obliqueF
Oblique Random Forest	ORFpls	Classification	obliqueF
Oblique Random Forest	ORFridge	Classification	obliqueF
Oblique Random Forest	ORFsvm	Classification	obliqueF
Optimal Weighted Nearest Neighbor Classifier	ownn	Classification	snn
Ordered Logistic or Probit Regression	polr	Classification	MASS
Parallel Random Forest	parRF	Classification, Regression	e1071, randoml foreach,
partDSA	partDSA	Classification, Regression	partDSA
Partial Least Squares	kernelpls	Classification, Regression	pls

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Partial Least Squares	pls	Classification, Regression	pls
Partial Least Squares	simpls	Classification, Regression	pls
Partial Least Squares	widekernelpls	Classification, Regression	pls
Partial Least Squares Generalized Linear Models	plsRglm	Classification, Regression	plsRglm
Patient Rule Induction Method	PRIM	Classification	supervis
Penalized Discriminant Analysis	pda	Classification	mda
Penalized Discriminant Analysis	pda2	Classification	mda
Penalized Linear Discriminant Analysis	PenalizedLDA	Classification	penalize plyr

Penalized Linear Regression	penalized	Regression	penalize
Penalized Logistic Regression	plr	Classification	stepPlr
Penalized Multinomial Regression	multinom	Classification	nnet
Penalized Ordinal Regression	ordinalNet	Classification	ordinalN
Polynomial Kernel Regularized Least Squares	krlsPoly	Regression	KRLS
Principal Component Analysis	pcr	Regression	pls
Projection Pursuit Regression	ppr	Regression	
Quadratic Discriminant Analysis	qda	Classification	MASS

Quadratic Discriminant Analysis with Stepwise Feature Selection	stepQDA	Classification	klaR, M <i>i</i>
Quantile Random Forest	qrf	Regression	quantreς
Quantile Regression Neural Network	qrnn	Regression	qrnn
Quantile Regression with LASSO penalty	rqlasso	Regression	rqPen
Radial Basis Function Kernel Regularized Least Squares	krlsRadial	Regression	KRLS, k
Radial Basis Function Network	rbf	Classification, Regression	RSNNS
Radial Basis Function Network	rbfDDA	Classification, Regression	RSNNS
Random Ferns	rFerns	Classification	rFerns

Random Forest	ranger	Classification, Regression	e1071, r dplyr
Random Forest	Rborist	Classification, Regression	Rborist
Random Forest	rf	Classification, Regression	randomi
Random Forest by Randomization	extraTrees	Classification, Regression	extraTre
Random Forest Rule-Based Model	rfRules	Classification, Regression	randoml inTrees,
Regularized Discriminant Analysis	rda	Classification	klaR
Regularized Linear Discriminant Analysis	rlda	Classification	sparsed
Regularized Logistic Regression	regLogistic	Classification	Liblineal
Regularized Random Forest	RRF	Classification, Regression	randoml RRF

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Regularized Random Forest	RRFglobal	Classification, Regression	RRF
Relaxed Lasso	relaxo	Regression	relaxo, p
Relevance Vector Machines with Linear Kernel	rvmLinear	Regression	kernlab
Relevance Vector Machines with Polynomial Kernel	rvmPoly	Regression	kernlab
Relevance Vector Machines with Radial Basis Function Kernel	rvmRadial	Regression	kernlab
Ridge Regression	ridge	Regression	elasticne
Ridge Regression with Variable Selection	foba	Regression	foba

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Linda	Classification	rrcov
rlm	Regression	MASS
rmda	Classification	robustD,
QdaCov	Classification	rrcov
rrlda	Classification	rrlda
RSimca	Classification	rrcovHD
rocc	Classification	rocc
rotationForest	Classification	rotation
		rpart, ply
	rlm rmda QdaCov rrlda RSimca rocc	rlm Regression rmda Classification QdaCov Classification rrlda Classification RSimca Classification rocc Classification

Rule-Based Classifier	JRip	Classification	RWeka
Rule-Based Classifier	PART	Classification	RWeka
Self-Organizing Maps	xyf	Classification, Regression	kohoner
Semi-Naive Structure Learner Wrapper	nbSearch	Classification	bnclassi
Shrinkage Discriminant Analysis	sda	Classification	sda
SIMCA	CSimca	Classification	rrcov, rra
Simplified TSK Fuzzy Rules	FS.HGD	Regression	frbs
Single C5.0 Ruleset	C5.0Rules	Classification	C50
Single C5.0 Tree	C5.0Tree	Classification	C50
Single Rule Classification	OneR	Classification	RWeka

sdwd	Classification	sdwd
sparseLDA	Classification	sparseL
smda	Classification	sparseL
spls	Classification, Regression	spls
spikeslab	Regression	spikesla
slda	Classification	ipred
snn	Classification	snn
	sparseLDA smda spls spikeslab slda	sparseLDA Classification smda Classification spls Classification, Regression spikeslab Regression slda Classification

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Stacked AutoEncoder Deep Neural Network	dnn	Classification, Regression	deepnet
Stochastic Gradient Boosting	gbm	Classification, Regression	gbm, ply
Subtractive Clustering and Fuzzy c-Means Rules	SBC	Regression	frbs
Supervised Principal Component Analysis	superpc	Regression	superpc
Support Vector Machines with Boundrange String Kernel	svmBoundrangeString	Classification, Regression	kernlab
Support Vector Machines with Class Weights	svmRadialWeights	Classification	kernlab

Support Vector Machines with Exponential String Kernel	svmExpoString	Classification, Regression	kernlab
Support Vector Machines with Linear Kernel	svmLinear	Classification, Regression	kernlab
Support Vector Machines with Linear Kernel	svmLinear2	Classification, Regression	e1071
Support Vector Machines with Polynomial Kernel	svmPoly	Classification, Regression	kernlab
Support Vector Machines with Radial Basis Function Kernel	svmRadial	Classification, Regression	kernlab
Support Vector Machines with Radial Basis Function Kernel	svmRadialCost	Classification, Regression	kernlab

Support Vector Machines with Radial Basis Function Kernel	svmRadialSigma	Classification, Regression	kernlab
Support Vector Machines with Spectrum String Kernel	svmSpectrumString	Classification, Regression	kernlab
The Bayesian lasso	blasso	Regression	monom\
The lasso	lasso	Regression	elasticne
Tree Augmented Naive Bayes Classifier	tan	Classification	bnclassi
Tree Augmented Naive Bayes Classifier Structure Learner Wrapper	tanSearch	Classification	bnclassi

Tree Augmented Naive Bayes Classifier with Attribute Weighting	awtan	Classification	bnclassi
Tree Models from Genetic Algorithms	evtree	Classification, Regression	evtree
Tree-Based Ensembles	nodeHarvest	Classification, Regression	nodeHa
Variational Bayesian Multinomial Probit Regression	vbmpRadial	Classification	vbmp
Wang and Mendel Fuzzy Rules	WM	Regression	frbs
Weighted Subspace Random Forest	wsrf	Classification	wsrf

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