# **API Reference**

This is the class and function reference of scikit-learn. Please refer to the ref. full user guide <user\_guide>` for further details, as the class and function raw specifications may not be enough to give full guidelines on their uses. For reference on concepts repeated across the API, see ref. glossary`.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 7); backlink

Unknown interpreted text role "ref".

 $System\ Message:\ ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules\]\ classes.rst,\ line\ 7);\ \textit{backlink}$ 

Unknown interpreted text role 'ref'.

## :mod:`sklearn.base`: Base classes and utility functions

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 14); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 17)

Unknown directive type "automodule".

```
.. automodule:: sklearn.base
    :no-members:
    :no-inherited-members:
```

#### Base classes

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\] [doc]\ [modules\] classes.rst, \ line\ 23)$ 

Unknown directive type "currentmodule".

 $\dots$  currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 25)

Unknown directive type "autosummary".

```
.. autosummary::
    :nosignatures:
    :toctree: generated/
    :template: class.rst

base.BaseEstimator
    base.BiclusterMixin
    base.ClassifierMixin
    base.ClusterMixin
    base.DensityMixin
    base.RegressorMixin
    base.TransformerMixin
    feature_selection.SelectorMixin
```

### **Functions**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 41)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 43)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

base.clone
base.is_classifier
base.is_regressor
config_context
get_config
set_config
show versions
```

## :mod:`sklearn.calibration`: Probability Calibration

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 57); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 60)

Unknown directive type "automodule".

```
.. automodule:: sklearn.calibration
:no-members:
:no-inherited-members:
```

User guide: See the ref calibration section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 64); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 66)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 68)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

calibration.CalibratedClassifierCV
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 75)

```
.. autosummary::
   :toctree: generated/
   :template: function.rst

calibration.calibration_curve
```

## :mod:'sklearn.cluster': Clustering

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 83); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 86)

Unknown directive type "automodule".

```
.. automodule:: sklearn.cluster
:no-members:
:no-inherited-members:
```

User guide: See the ref. clustering and ref. biclustering sections for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 90); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 90); backlink

Unknown interpreted text role "ref".

#### Classes

 $System\ Message: ERROR/3\ (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\colongly [scikit-learn-main]\ [doc]\ [modules]\ classes.rst,\ line\ 95)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 97)

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

cluster.AffinityPropagation
    cluster.AgglomerativeClustering
    cluster.Birch
    cluster.DBSCAN
    cluster.FeatureAgglomeration
    cluster.KMeans
    cluster.MiniBatchKMeans
    cluster.MeanShift
    cluster.OPTICS
    cluster.SpectralClustering
    cluster.SpectralBiclustering
    cluster.SpectralCoclustering
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 116)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

cluster.affinity_propagation
    cluster.cluster_optics_dbscan
    cluster.cluster_optics_xi
    cluster.compute_optics_graph
    cluster.dbscan
    cluster.estimate_bandwidth
    cluster.k_means
    cluster.kmeans_plusplus
    cluster.mean_shift
    cluster.spectral_clustering
    cluster.ward_tree
```

## :mod:'sklearn.compose': Composite Estimators

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 134); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 137)

Unknown directive type "automodule".

```
.. automodule:: sklearn.compose
:no-members:
:no-inherited-members:
```

User guide: See the ref. combining estimators' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 141); backlink Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 144)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: class.rst
    compose.ColumnTransformer
    compose.TransformedTargetRegressor
```

```
.. autosummary::
```

```
:toctree: generated/
:template: function.rst

compose.make_column_transformer
compose.make_column_selector
```

### :mod: 'sklearn.covariance': Covariance Estimators

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 162); \ \textit{backlink}$ 

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 165)

Unknown directive type "automodule".

```
.. automodule:: sklearn.covariance
:no-members:
:no-inherited-members:
```

User guide: See the :ref.`covariance` section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 169); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 171)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 173)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

    covariance.EmpiricalCovariance
    covariance.EllipticEnvelope
    covariance.GraphicalLasso
    covariance.GraphicalLassoCV
    covariance.LedoitWolf
    covariance.MinCovDet
    covariance.OAS
    covariance.ShrunkCovariance
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 186)

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

    covariance.empirical_covariance
    covariance.graphical_lasso
    covariance.ledoit_wolf
    covariance.oas
    covariance.shrunk_covariance
```

## :mod:'sklearn.cross decomposition': Cross decomposition

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 201)

Unknown directive type "automodule".

```
.. automodule:: sklearn.cross_decomposition
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. cross decomposition' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 205); backlink

Unknown interpreted text role 'ref'.

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 209)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

    cross_decomposition.CCA
    cross_decomposition.PLSCanonical
    cross_decomposition.PLSRegression
    cross_decomposition.PLSSVD
```

### :mod:'sklearn.datasets': Datasets

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 220); backlink

Unknown interpreted text role "mod".

Unknown directive type "automodule".

```
.. automodule:: sklearn.datasets
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. datasets' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 227); backlink

Unknown interpreted text role 'ref'.

### Loaders

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 232)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 234)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
  :template: function.rst
  datasets.clear data home
  datasets.dump svmlight file
  datasets.fetch 20newsgroups
  datasets.fetch 20newsgroups vectorized
  datasets.fetch_california_housing
  datasets.fetch_covtype
  datasets.fetch kddcup99
  datasets.fetch lfw pairs
  {\tt datasets.fetch\_lfw\_people}
  datasets.fetch olivetti faces
  datasets.fetch openml
  datasets.fetch_rcv1
  datasets.fetch_species_distributions
  datasets.get_data_home
  datasets.load boston
  datasets.load_breast_cancer
  datasets.load diabetes
  datasets.load digits
  datasets.load files
  datasets.load iris
  datasets.load linnerud
  datasets.load sample image
  datasets.load_sample_images
  datasets.load_svmlight_file
  datasets.load symlight files
  datasets.load wine
```

### Samples generator

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 268)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 270)$ 

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

datasets.make_biclusters
    datasets.make_blobs
    datasets.make_checkerboard
    datasets.make_circles
    datasets.make_circles
    datasets.make_friedman1
    datasets.make_friedman2
    datasets.make_friedman3
    datasets.make_gaussian_quantiles
```

```
datasets.make_hastie_10_2
datasets.make_low_rank_matrix
datasets.make_moons
datasets.make_multilabel_classification
datasets.make_regression
datasets.make_s_curve
datasets.make_sparse_coded_signal
datasets.make_sparse_spd_matrix
datasets.make_sparse_uncorrelated
datasets.make_spd_matrix
datasets.make_spd_matrix
```

## :mod:'sklearn.decomposition': Matrix Decomposition

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 298); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 301)

Unknown directive type "automodule".

```
.. automodule:: sklearn.decomposition
   :no-members:
   :no-inherited-members:
```

User guide: See the ref'decompositions' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 305); backlink Unknown interpreted text role "ref".

 $System\,Message: ERROR/3\,(\text{D:}\onboarding-resources}) sample-onboarding-resources\\ scikit-learn-main\\ [doc]\,[modules]\,classes.rst,\,line\,307)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 309)

Unknown directive type "autosummary".

```
.. autosummary::
  :toctree: generated/
  :template: class.rst
  decomposition.DictionaryLearning
  decomposition.FactorAnalysis
  decomposition.FastICA
  decomposition.IncrementalPCA
  decomposition.KernelPCA
  decomposition.LatentDirichletAllocation
  decomposition.MiniBatchDictionaryLearning
  decomposition.MiniBatchSparsePCA
  decomposition.NMF
  decomposition.PCA
  decomposition.SparsePCA
  decomposition.SparseCoder
  decomposition.TruncatedSVD
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 327)

#### Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

decomposition.dict_learning
    decomposition.dict_learning_online
    decomposition.fastica
    decomposition.non_negative_factorization
    decomposition.sparse_encode
```

## :mod:'sklearn.discriminant\_analysis': Discriminant Analysis

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 339); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 342)

Unknown directive type "automodule".

```
.. automodule:: sklearn.discriminant_analysis
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. Ida qda' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 346); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 348)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 350)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: class.rst

discriminant_analysis.LinearDiscriminantAnalysis
    discriminant analysis.QuadraticDiscriminantAnalysis
```

## :mod:`sklearn.dummy`: Dummy estimators

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 359); backlink

Unknown interpreted text role 'mod'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 362)

Unknown directive type "automodule".

.. automodule:: sklearn.dummy

```
:no-members:
:no-inherited-members:
```

User guide: See the ref. model evaluation section for further details.

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 366);\ \textit{backlink}$ 

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 368)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 370)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

dummy.DummyClassifier
dummy.DummyRegressor
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 377)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
   :template: function.rst
```

#### :mod:\sklearn.ensemble\: Ensemble Methods

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 383); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 386)

Unknown directive type "automodule".

```
.. automodule:: sklearn.ensemble
:no-members:
:no-inherited-members:
```

User guide: See the ref. ensemble section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 390); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 392)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 394)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
   :template: class.rst
  ensemble.AdaBoostClassifier
  ensemble.AdaBoostRegressor
  ensemble.BaggingClassifier
  ensemble.BaggingRegressor
  ensemble.ExtraTreesClassifier
  ensemble.ExtraTreesRegressor
  ensemble.GradientBoostingClassifier
  ensemble.GradientBoostingRegressor
  ensemble.IsolationForest
  ensemble.RandomForestClassifier
  ensemble.RandomForestRegressor
  ensemble.RandomTreesEmbedding
  ensemble.StackingClassifier
  ensemble.StackingRegressor
  ensemble.VotingClassifier
  ensemble.VotingRegressor
  ensemble.HistGradientBoostingRegressor
  {\tt ensemble.HistGradientBoostingClassifier}
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 418)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
   :template: function.rst
```

# :mod:'sklearn.exceptions': Exceptions and warnings

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 425); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 428)

Unknown directive type "automodule".

```
.. automodule:: sklearn.exceptions
:no-members:
:no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 432)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 434)$ 

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

exceptions.ConvergenceWarning
exceptions.DataConversionWarning
exceptions.DataDimensionalityWarning
exceptions.EfficiencyWarning
exceptions.FitFailedWarning
exceptions.NotFittedError
exceptions.UndefinedMetricWarning
```

## :mod:`sklearn.experimental`: Experimental

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 447); backlink

Unknown interpreted text role 'mod'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 450)

Unknown directive type "automodule".

```
.. automodule:: sklearn.experimental
   :no-members:
   :no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 454)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 456)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    experimental.enable_hist_gradient_boosting
    experimental.enable_iterative_imputer
    experimental.enable_halving_search_cv
```

## :mod:`sklearn.feature\_extraction`: Feature Extraction

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 466); backlink

Unknown interpreted text role 'mod'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 469)

Unknown directive type "automodule".

```
.. automodule:: sklearn.feature_extraction
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. feature extraction' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 473); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 475)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 477)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

feature_extraction.DictVectorizer
feature_extraction.FeatureHasher
```

### From images

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 487)

Unknown directive type "automodule".

```
.. automodule:: sklearn.feature_extraction.image
:no-members:
:no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 491)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 493)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

feature_extraction.image.extract_patches_2d
    feature_extraction.image.grid_to_graph
    feature_extraction.image.img_to_graph
    feature_extraction.image.reconstruct_from_patches_2d
    :template: class.rst

feature_extraction.image.PatchExtractor
```

#### From text

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 511)

Unknown directive type "automodule".

.. automodule:: sklearn.feature extraction.text

```
:no-members:
:no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 515)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 517)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

feature_extraction.text.CountVectorizer
    feature_extraction.text.HashingVectorizer
    feature_extraction.text.TfidfTransformer
    feature_extraction.text.TfidfVectorizer
```

## :mod:`sklearn.feature\_selection`: Feature Selection

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 529); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 532)

Unknown directive type "automodule".

```
.. automodule:: sklearn.feature_selection
:no-members:
:no-inherited-members:
```

**User guide:** See the <u>ref.</u> feature <u>selection</u> section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 536); backlink

Unknown interpreted text role "ref".

 $System\,Message: ERROR/3\, (\mbox{D:\nonboarding-resources}\scample-onboarding-resources\scample-onboar$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 540)

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

feature_selection.GenericUnivariateSelect
    feature_selection.SelectPercentile
    feature selection.SelectKBest
```

```
feature_selection.SelectFpr
feature_selection.SelectFdr
feature_selection.SelectFromModel
feature_selection.SelectFwe
feature_selection.SequentialFeatureSelector
feature_selection.RFE
feature_selection.RFECV
feature_selection.VarianceThreshold
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 556)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

feature_selection.chi2
    feature_selection.f_classif
    feature_selection.f_regression
    feature_selection.r_regression
    feature_selection.mutual_info_classif
    feature_selection.mutual_info_regression
```

## :mod:\sklearn.gaussian\_process\: Gaussian Processes

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 570); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 573)

Unknown directive type "automodule".

```
.. automodule:: sklearn.gaussian_process
:no-members:
:no-inherited-members:
```

User guide: See the ref. gaussian process' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 577); backlink Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 579)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

 $System\ Message: ERROR/3\ (\texttt{D:\noboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\]\ [doc]\ [modules\]\ classes.rst,\ line\ 581)$ 

```
.. autosummary::
   :toctree: generated/
   :template: class.rst

gaussian_process.GaussianProcessClassifier
gaussian_process.GaussianProcessRegressor
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 590)

Unknown directive type "autosummary".

```
.. autosummary::
 :toctree: generated/
 :template: class with call.rst
 gaussian_process.kernels.CompoundKernel
 gaussian process.kernels.ConstantKernel
 gaussian_process.kernels.DotProduct
 gaussian_process.kernels.ExpSineSquared
 {\tt gaussian\_process.kernels.Exponentiation}
 gaussian process.kernels.Hyperparameter
 gaussian process.kernels.Kernel
 gaussian process.kernels.Matern
 gaussian_process.kernels.PairwiseKernel
 gaussian_process.kernels.Product
 gaussian_process.kernels.RBF
 {\tt gaussian\_process.kernels.RationalQuadratic}
 gaussian process.kernels.Sum
 gaussian process.kernels.WhiteKernel
```

## :mod:`sklearn.impute`: Impute

 $System\ Message: ERROR/3\ (D:\onboarding-resources\scample-onboarding-re$ 

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 615)

Unknown directive type "automodule".

```
.. automodule:: sklearn.impute
   :no-members:
   :no-inherited-members:
```

**User guide:** See the <u>:ref.`Impute`</u> section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 619); backlink Unknown interpreted text role "ref".

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 621)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 623)

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

impute.SimpleImputer
    impute.IterativeImputer
    impute.MissingIndicator
    impute.KNNImputer
```

## :mod:'sklearn.inspection': Inspection

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 635); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 638)

Unknown directive type "automodule".

```
.. automodule:: sklearn.inspection
   :no-members:
   :no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 642)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 644)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst
    inspection.partial_dependence
    inspection.permutation_importance
```

### **Plotting**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 654)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\] [doc]\ [modules]\ classes.rst,\ line\ 656)$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst
    inspection.DecisionBoundaryDisplay
    inspection.PartialDependenceDisplay
```

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 663)$ 

```
.. autosummary::
   :toctree: generated/
   :template: function.rst
```

## :mod:'sklearn.isotonic': Isotonic regression

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 671); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 674)

Unknown directive type "automodule".

```
.. automodule:: sklearn.isotonic
:no-members:
:no-inherited-members:
```

User guide: See the ref. isotonic section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 678); backlink

Unknown interpreted text role "ref".

 $System\,Message: ERROR/3\, (\mboarding-resources\sample-onboarding-resources\scikit-learn-main\colongly) and the control of th$ 

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 682)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
   :template: class.rst
   isotonic.IsotonicRegression
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 688)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: function.rst
    isotonic.check_increasing
    isotonic.isotonic_regression
```

# :mod:`sklearn.kernel\_approximation`: Kernel Approximation

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 698); backlink

Unknown interpreted text role 'mod'.

```
learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 701)
```

Unknown directive type "automodule".

```
.. automodule:: sklearn.kernel_approximation
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. kernel approximation' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 705); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 707)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 709)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

kernel_approximation.AdditiveChi2Sampler
    kernel_approximation.Nystroem
    kernel_approximation.PolynomialCountSketch
    kernel_approximation.RBFSampler
    kernel_approximation.SkewedChi2Sampler
```

## :mod:'sklearn.kernel ridge': Kernel Ridge Regression

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 721); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 724)

Unknown directive type "automodule".

```
.. automodule:: sklearn.kernel_ridge
:no-members:
:no-inherited-members:
```

User guide: See the ref. kernel ridge' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 728); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 730)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 732)

Unknown directive type "autosummary".

... autosummary::
    :toctree: generated/
    :template: class.rst

kernel_ridge.KernelRidge
```

## :mod:`sklearn.linear\_model`: Linear Models

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 740); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 743)

Unknown directive type "automodule".

```
.. automodule:: sklearn.linear_model
:no-members:
:no-inherited-members:
```

User guide: See the ref. linear model section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 747); backlink Unknown interpreted text role "ref".

The following subsections are only rough guidelines: the same estimator can fall into multiple categories, depending on its parameters.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 752)

Unknown directive type "currentmodule".

... currentmodule:: sklearn
```

### Linear classifiers

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 756)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

linear_model.LogisticRegression
linear_model.LogisticRegressionCV
linear_model.PassiveAggressiveClassifier
linear_model.Perceptron
linear_model.RidgeClassifier
linear_model.RidgeClassifier
linear_model.SGDClassifier
linear_model.SGDClassifier
```

### **Classical linear regressors**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 772)

#### Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

linear_model.LinearRegression
linear_model.Ridge
linear_model.RidgeCV
linear_model.SGDRegressor
```

### Regressors with variable selection

The following estimators have built-in variable selection fitting procedures, but any estimator using a L1 or elastic-net penalty also performs variable selection: typically :class:`~linear\_model.SGDRegressor` or :class:`~sklearn.linear\_model.SGDClassifier` with an appropriate penalty.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 784); backlink
```

Unknown interpreted text role "class".

 $System\ Message:\ ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 784);\ \textit{backlink}$ 

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 789)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

linear_model.ElasticNet
linear_model.ElasticNetCV
linear_model.Lars
linear_model.LarsCV
linear_model.Lasso
linear_model.LassoCV
linear_model.LassoCV
linear_model.LassoLars
linear_model.LassoLarsCV
linear_model.LassoLarsCV
linear_model.CassoLarsIC
linear_model.OrthogonalMatchingPursuit
linear_model.OrthogonalMatchingPursuitCV
```

### **Bayesian regressors**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 808)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst
    linear_model.ARDRegression
    linear_model.BayesianRidge
```

### Multi-task linear regressors with variable selection

These estimators fit multiple regression problems (or tasks) jointly, while inducing sparse coefficients. While the inferred coefficients may differ between the tasks, they are constrained to agree on the features that are selected (non-zero coefficients).

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 823)

#### Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

linear_model.MultiTaskElasticNet
linear_model.MultiTaskElasticNetCV
linear_model.MultiTaskLasso
linear_model.MultiTaskLassoCV
```

### **Outlier-robust regressors**

Any estimator using the Huber loss would also be robust to outliers, e.g. :class: ~linear model.SGDRegressor` with loss='huber'.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 835); backlink Unknown interpreted text role "class".
```

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 838)

Unknown directive type "autosummary".

.. autosummary:
    :tootree: generated/
    :template: class.rst

linear_model.HuberRegressor
    linear_model.QuantileRegressor
    linear_model.RANSACRegressor
    linear_model.TheilSenRegressor
```

### Generalized linear models (GLM) for regression

These models allow for response variables to have error distributions other than a normal distribution:

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-
learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 853)

Unknown directive type "autosummary".

.. autosummary::
    :toctree: generated/
    :template: class.rst

linear_model.PoissonRegressor
    linear_model.TweedieRegressor
    linear_model.GammaRegressor
```

#### Miscellaneous

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 865)

Unknown directive type "autosummary".

... autosummary::
    :toctree: generated/
    :template: function.rst

linear_model.PassiveAggressiveRegressor
linear_model.enet_path
linear_model.lars_path
linear_model.lars_path
linear_model.lars_path
linear_model.orthogonal_mp
linear_model.orthogonal_mp
linear_model.orthogonal_mp_gram
linear_model.orthogonal_mp_gram
linear_model.ridge regression
```

## :mod:`sklearn.manifold`: Manifold Learning

 $System\ Message: ERROR/3\ (\texttt{D:\noboarding-resources\scale}) learn-main\doc\modules\[scikit-learn-main]\ [doc]\ [modules]\ classes.rst, \ line\ 881); \ backlink$ 

Unknown interpreted text role 'mod'.

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\] [doc]\ [modules\scikit-learn-main\doc\modules\scikit-$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.manifold
   :no-members:
   :no-inherited-members:
```

User guide: See the ref. manifold section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 888); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 890)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

 $System\ Message: ERROR/3\ (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\colongly [doc]\ [modules]\ classes.rst,\ line\ 892)$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: class.rst

manifold.Isomap
    manifold.LocallyLinearEmbedding
    manifold.MDS
    manifold.SpectralEmbedding
    manifold.TSNE
```

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: function.rst

manifold.locally_linear_embedding
    manifold.smacof
    manifold.spectral_embedding
    manifold.trustworthiness
```

### :mod:'sklearn.metrics': Metrics

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 914); backlink

Unknown interpreted text role "mod".

See the <a href="model\_evaluation">ref: metrics</a>' section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 917); backlink

Unknown interpreted text role "ref".

 $System\,Message: ERROR/3\, (\mboarding-resources\scample-onboarding-resour$ 

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 920)

Unknown directive type "automodule".

```
.. automodule:: sklearn.metrics
   :no-members:
   :no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 924)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

#### **Model Selection Interface**

See the ref. scoring parameter' section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 928); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 931)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

metrics.check_scoring
    metrics.get_scorer
    metrics.get_scorer_names
    metrics.make_scorer
```

### **Classification metrics**

See the <a href="ref.">ref.</a> 'classification\_metrics' section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 943); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 946)

```
.. autosummary::
   :toctree: generated/
```

```
:template: function.rst
metrics.accuracy score
metrics.auc
metrics.average_precision_score
metrics.balanced accuracy score
metrics.brier_score_loss
metrics.classification report
metrics.cohen kappa score
metrics.confusion matrix
metrics.dcg score
metrics.det curve
metrics.fl score
metrics.fbeta_score
metrics.hamming_loss
metrics.hinge loss
metrics.jaccard score
metrics.log loss
metrics.matthews corrcoef
metrics.multilabel confusion matrix
metrics.ndcg score
metrics.precision recall curve
metrics.precision_recall_fscore_support
metrics.precision_score
metrics.recall score
metrics.roc_auc_score
metrics.roc curve
metrics.top_k_accuracy_score
metrics.zero one loss
```

### **Regression metrics**

See the <u>:ref.`regression\_metrics`</u> section of the user guide for further details.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 981); backlink
Unknown interpreted text role "ref".
```

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-
learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 984)
Unknown directive type "autosummary".
   .. autosummarv::
      :toctree: generated/
      :template: function.rst
      metrics.explained variance score
      metrics.max_error
      metrics.mean absolute error
      metrics.mean_squared_error
      metrics.mean squared log error
      metrics.median absolute error
      metrics.mean_absolute_percentage_error
      metrics.r2 score
      metrics.mean_poisson_deviance
      metrics.mean gamma deviance
      metrics.mean tweedie deviance
      metrics.d2_tweedie_score
      metrics.mean_pinball_loss
```

### Multilabel ranking metrics

See the <u>rreft' multilabel ranking metrics</u>' section of the user guide for further details.

 $System\ Message: ERROR/3\ (\texttt{D:\ } \ \texttt{Conboarding-resources} \ \texttt{sample-onboarding-resources} \ \texttt{Scikit-learn-main}\ [doc]\ [modules]\ classes.rst,\ line\ 1004);\ \textit{backlink} \ ]$ 

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1007)

#### Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

metrics.coverage_error
    metrics.label_ranking_average_precision_score
    metrics.label_ranking_loss
```

### **Clustering metrics**

See the <u>:ref:`clustering\_evaluation`</u> section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1019); backlink Unknown interpreted text role "ref".

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1022)$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.metrics.cluster
   :no-members:
   :no-inherited-members:
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1026)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1028)

Unknown directive type "autosummary".

```
.. autosummary::
  :toctree: generated/
   :template: function.rst
  metrics.adjusted_mutual_info_score
  metrics.adjusted_rand_score
  metrics.calinski harabasz score
  metrics.davies bouldin score
  metrics.completeness_score
  metrics.cluster.contingency matrix
  metrics.cluster.pair_confusion matrix
  metrics.fowlkes mallows score
  {\tt metrics.homogeneity\_completeness\_v\_measure}
  metrics.homogeneity_score
  metrics.mutual info score
  metrics.normalized_mutual_info_score
  metrics.rand score
  metrics.silhouette score
  metrics.silhouette samples
  metrics.v measure score
```

#### **Biclustering metrics**

See the <a href="ref">:ref</a> biclustering evaluation</a> section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1052); backlink

Unknown interpreted text role 'ref'.

 $System\ Message: ERROR/3\ (\texttt{D:\noboarding-resources}\ \texttt{sample-onboarding-resources}\ \texttt{line}\ 1055)$ 

```
Unknown directive type "currentmodule".
.. currentmodule:: sklearn
```

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\]\ [doc]\ [modules\scikit-learn-main\scikit$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst
    metrics.consensus_score
```

#### Distance metrics

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1066)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst
    metrics.DistanceMetric
```

### Pairwise metrics

See the ref. metrics' section of the user guide for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1077); backlink Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1079)

Unknown directive type "automodule".

```
.. automodule:: sklearn.metrics.pairwise
   :no-members:
   :no-inherited-members:
```

 $System\ Message:\ ERROR/3\ (\texttt{D:\noboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\fill\ [doc]\ [modules\]\ classes.rst,\ \ line\ 1083)$ 

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

#### Unknown directive type "autosummary".

```
.. autosummary::
  :toctree: generated/
   :template: function.rst
  metrics.pairwise.additive chi2 kernel
  metrics.pairwise.chi2 kernel
  metrics.pairwise.cosine_similarity
  metrics.pairwise.cosine distances
  metrics.pairwise.distance metrics
  metrics.pairwise.euclidean distances
  metrics.pairwise.haversine distances
  metrics.pairwise.kernel_metrics
  metrics.pairwise.laplacian kernel
  metrics.pairwise.linear_kernel
  metrics.pairwise.manhattan distances
  metrics.pairwise.nan euclidean distances
  metrics.pairwise.pairwise kernels
  metrics.pairwise.polynomial kernel
  metrics.pairwise.rbf kernel
  metrics.pairwise.sigmoid kernel
  metrics.pairwise.paired_euclidean distances
  metrics.pairwise.paired_manhattan_distances
  metrics.pairwise.paired_cosine_distances
  metrics.pairwise.paired distances
  metrics.pairwise distances
  {\tt metrics.pairwise\_distances\_argmin}
  metrics.pairwise distances argmin min
  metrics.pairwise distances chunked
```

### **Plotting**

See the :ref:'visualizations' section of the user guide for further details.

 $System\ Message:\ ERROR/3\ (\texttt{D:\noboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1118);\ backlink$ 

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1120)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

 $System\ Message: ERROR/3\ (D:\onboarding-resources\scample-onboarding-re$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

metrics.plot_confusion_matrix
    metrics.plot_det_curve
    metrics.plot_precision_recall_curve
    metrics.plot_roc_curve
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1131)

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

metrics.ConfusionMatrixDisplay
metrics.DetCurveDisplay
```

### :mod:`sklearn.mixture`: Gaussian Mixture Models

 $System\ Message:\ ERROR/3\ (\texttt{D:\onboarding-resources}\ sample-onboarding-resources\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1143);\ backlink$ 

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1146)

Unknown directive type "automodule".

```
.. automodule:: sklearn.mixture
   :no-members:
   :no-inherited-members:
```

User guide: See the ref: mixture' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1150); backlink

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1152)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1154)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

mixture.BayesianGaussianMixture
mixture.GaussianMixture
```

## :mod:`sklearn.model\_selection`: Model Selection

 $System\,Message: ERROR/3~(\texttt{D:\onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\globoles\scikit-learn-main\globoles\scikit-learn-main\globoles\g$ 

Unknown interpreted text role 'mod'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1166)

Unknown directive type "automodule".

```
.. automodule:: sklearn.model_selection
   :no-members:
   :no-inherited-members:
```

User guide: See the ref: cross validation, ref: grid search and ref: learning curve sections for further details.

 $System\ Message:\ ERROR/3\ (\texttt{D:\ }\ classes. rst, line\ 1170);\ backlink) in the property of the property o$ 

Unknown interpreted text role 'ref'.

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1170); backlink

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1170); backlink

Unknown interpreted text role 'ref'.

### **Splitter Classes**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1176)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1178)

Unknown directive type "autosummary".

```
.. autosummary::
   :toctree: generated/
   :template: class.rst
  model selection. Group KFold
  model selection. Group Shuffle Split
  model selection.KFold
  {\tt model\_selection.LeaveOneGroupOut}
  model_selection.LeavePGroupsOut
  model selection.LeaveOneOut
  model_selection.LeavePOut
  model selection.PredefinedSplit
  \verb|model| = \verb|lection.Repeated| KFold|
  model_selection.RepeatedStratifiedKFold
  {\tt model\_selection.ShuffleSplit}
  model selection.StratifiedKFold
  model selection.StratifiedShuffleSplit
  model_selection.StratifiedGroupKFold
  model selection.TimeSeriesSplit
```

### **Splitter Functions**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1201)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1203)

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

model_selection.check_cv
model_selection.train_test_split
```

### Hyper-parameter optimizers

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1215)

Unknown directive type "currentmodule".

... currentmodule:: sklearn
```

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 1217)

Unknown directive type "autosummary".

.. autosummary::
    :toctree: generated/
    :template: class.rst

model_selection.GridSearchCV
    model_selection.HalvingGridSearchCV
    model_selection.ParameterGrid
    model_selection.ParameterSampler
    model_selection.RandomizedSearchCV
    model_selection.HalvingRandomSearchCV
```

#### Model validation

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 1232)

Unknown directive type "currentmodule".

... currentmodule:: sklearn
```

 $System\,Message: ERROR/3\, (\mboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\mboarding-resources\scikit-learn-main]\, [doc]\, [modules]\, classes.rst, \, line\, 1234)$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

model_selection.cross_validate
    model_selection.cross_val_predict
    model_selection.cross_val_score
    model_selection.learning_curve
    model_selection.permutation_test_score
    model_selection.validation_curve
```

## :mod:'sklearn.multiclass': Multiclass classification

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1247); backlink Unknown interpreted text role "mod".

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main\] [doc]\ [modules]\ classes.rst,\ line\ 1250)$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.multiclass
:no-members:
:no-inherited-members:
```

User guide: See the ref. multiclass classification' section for further details.

 $System\ Message:\ ERROR/3\ (\texttt{D:\ } conboarding-resources\ \\ sample-onboarding-resources\ \\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1254);\ \textit{backlink}$ 

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1256)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1258)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: class.rst

multiclass.OneVsRestClassifier
    multiclass.OneVsOneClassifier
    multiclass.OutputCodeClassifier
```

## :mod:`sklearn.multioutput`: Multioutput regression and classification

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1268); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1271)

Unknown directive type "automodule".

```
.. automodule:: sklearn.multioutput
:no-members:
:no-inherited-members:
```

User guide: See the .ref; multilabel\_classification`, .ref; multiclass\_multioutput\_classification`, and .ref; multioutput\_regression` sections for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1275); backlink

Unknown interpreted text role 'ref'.

 $System\,Message: ERROR/3~(\texttt{D:}\conboarding-resources}\scample-onboarding-resources\\scikit-learn-main\doc\modules\fiscikit-learn-main\figure [doc]\figure{1275}; \textit{backlink}\columnwidth{backlink}$ 

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1275); backlink

Unknown interpreted text role 'ref'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1279)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1281)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated
    :template: class.rst

multioutput.ClassifierChain
    multioutput.MultiOutputRegressor
    multioutput.MultiOutputClassifier
    multioutput.RegressorChain
```

## :mod:`sklearn.naive\_bayes`: Naive Bayes

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1292); backlink

Unknown interpreted text role "mod".

 $System\ Message:\ ERROR/3\ (\texttt{D:\ } \ conboarding-resources\ } \ sample-onboarding-resources\ \\ \ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1295)$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.naive_bayes
:no-members:
:no-inherited-members:
```

User guide: See the ref. naive bayes section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1299); backlink

Unknown interpreted text role 'ref'.

 $System\,Message: ERROR/3\, (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\cikit-learn-main]\, [doc]\, [modules]\, classes.rst, \, line\, 1301)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1303)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

naive_bayes.BernoulliNB
    naive_bayes.CategoricalNB
    naive_bayes.ComplementNB
    naive_bayes.GaussianNB
    naive_bayes.MultinomialNB
```

# :mod:`sklearn.neighbors`: Nearest Neighbors

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1319)

Unknown directive type "automodule".

.. automodule:: sklearn.neighbors
:no-members:
:no-inherited-members:
```

User guide: See the ref neighbors section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1323); backlink

Unknown interpreted text role 'ref'.

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1327)

Unknown directive type "autosummary".

```
.. autosummary::
  :toctree: generated/
   :template: class.rst
  neighbors.BallTree
  neighbors.KDTree
  neighbors.KernelDensity
  neighbors.KNeighborsClassifier
  neighbors.KNeighborsRegressor
  neighbors.KNeighborsTransformer
  neighbors.LocalOutlierFactor
  {\tt neighbors.RadiusNeighborsClassifier}
  neighbors.RadiusNeighborsRegressor
  neighbors.RadiusNeighborsTransformer
  neighbors.NearestCentroid
  neighbors.NearestNeighbors
  neighbors.NeighborhoodComponentsAnalysis
```

 $System\ Message: ERROR/3\ (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\fill[foot][fo$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst
    neighbors.kneighbors_graph
    neighbors.radius_neighbors_graph
```

## :mod:`sklearn.neural\_network`: Neural network models

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1354); backlink

Unknown interpreted text role "mod".

```
learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 1357)
```

Unknown directive type "automodule".

```
.. automodule:: sklearn.neural_network
   :no-members:
   :no-inherited-members:
```

User guide: See the reft neural networks supervised and reft neural networks unsupervised sections for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1361); backlink Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1361); backlink Unknown interpreted text role "ref".

 $System\,Message:\,ERROR/3\, (\mbox{D:\noboarding-resources}\scikit-learn-main\doc\mbox{modules}\scikit-learn-main\glasses.rst, line\,1363)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1365)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

    neural_network.BernoulliRBM
    neural_network.MLPClassifier
    neural_network.MLPRegressor
```

# :mod:`sklearn.pipeline`: Pipeline

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1375); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1378)

Unknown directive type "automodule".

```
.. automodule:: sklearn.pipeline
:no-members:
:no-inherited-members:
```

User guide: See the ref combining estimators section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1382); backlink

Unknown interpreted text role 'ref'.

 $System\ Message: ERROR/3\ (\texttt{D:}\onboarding-resources}\ sample-onboarding-resources\}\ scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ line\ 1385)$ 

#### Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1387)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst
    pipeline.FeatureUnion
    pipeline.Pipeline
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1394)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

pipeline.make_pipeline
pipeline.make_union
```

# :mod:`sklearn.preprocessing`: Preprocessing and Normalization

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1403); backlink

Unknown interpreted text role "mod".

 $System\,Message:\,ERROR/3\, (\mboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\mboarding-resources\scikit-learn-main\ [doc]\ [modules]\ classes.rst,\ \mbox{line}\ 1406)$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.preprocessing
:no-members:
:no-inherited-members:
```

User guide: See the ref preprocessing section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1410); backlink

Unknown interpreted text role "ref".

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Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1414)

```
.. autosummary::
   :toctree: generated/
   :template: class.rst
```

```
preprocessing.Binarizer
preprocessing.FunctionTransformer
preprocessing.KBinsDiscretizer
preprocessing.KernelCenterer
preprocessing.LabelBinarizer
preprocessing.LabelEncoder
preprocessing.MultiLabelBinarizer
preprocessing.MaxAbsScaler
preprocessing.MinMaxScaler
preprocessing.Normalizer
preprocessing.OneHotEncoder
preprocessing.OrdinalEncoder
preprocessing.PolynomialFeatures
\verb|preprocessing.PowerTransformer| \\
preprocessing.QuantileTransformer
preprocessing.RobustScaler
preprocessing.SplineTransformer
preprocessing.StandardScaler
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1437)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

    preprocessing.add_dummy_feature
    preprocessing.binarize
    preprocessing.label_binarize
    preprocessing.maxabs_scale
    preprocessing.minmax_scale
    preprocessing.normalize
    preprocessing.quantile_transform
    preprocessing.robust_scale
    preprocessing.scale
    preprocessing.power_transform
```

# :mod:`sklearn.random\_projection`: Random projection

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1455); backlink

Unknown interpreted text role "mod".

 $System\,Message: ERROR/3\, (\texttt{D:}\onboarding-resources}\scale-onboarding-resources\\scale-index (\texttt{D:}\onboarding-resources})\scale-index (\texttt{D:}\onboarding-resources})\scale-index (\texttt{D:}\onboarding-resources)\scale-index (\texttt{D:}\onboarding-reso$ 

Unknown directive type "automodule".

```
.. automodule:: sklearn.random_projection
   :no-members:
   :no-inherited-members:
```

**User guide:** See the <u>ref. random projection</u> section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1462); backlink

Unknown interpreted text role "ref".

 $System\,Message: ERROR/3\, (\texttt{D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\scikit-learn-main]\, [doc]\, [modules]\, classes.rst, \, line\,\, 1464)$ 

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1466)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

random_projection.GaussianRandomProjection
random_projection.SparseRandomProjection
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1473)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst
    random_projection.johnson_lindenstrauss_min_dim
```

# :mod:`sklearn.semi\_supervised`: Semi-Supervised Learning

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1482); backlink Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1485)

Unknown directive type "automodule".

```
.. automodule:: sklearn.semi_supervised
:no-members:
:no-inherited-members:
```

User guide: See the ref. semi supervised section for further details.

 $System\,Message:\,ERROR/3\, (\mbox{D:\noboarding-resources}\scale-onboarding-resources\scale-onboarding$ 

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1491)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1493)

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

semi_supervised.LabelPropagation
    semi_supervised.LabelSpreading
    semi_supervised.SelfTrainingClassifier
```

## :mod:'sklearn.svm': Support Vector Machines

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1504); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1507)

Unknown directive type "automodule".

```
.. automodule:: sklearn.svm
:no-members:
:no-inherited-members:
```

**User guide:** See the **ref.** svm' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1511); backlink

Unknown interpreted text role 'ref'.

#### **Estimators**

 $System\ Message:\ ERROR/3\ (\texttt{D:\noboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\cikit-learn-main\ [doc]\ [modules\cikit-learn-main\cite]\ (lasses.rst,\ line\ 1516)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

 $System\,Message: ERROR/3\, (\mboarding-resources \sample-onboarding-resources \scikit-learn-main\colongly [doc] [modules] classes.rst, line 1518)$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

svm.LinearSVC
svm.LinearSVR
svm.NuSVC
svm.NuSVC
svm.OneClassSVM
svm.SVC
svm.SVC
```

 $System\ Message: ERROR/3\ (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\colongly [doc]\ [modules]\ classes.rst,\ line\ 1530)$ 

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst
    svm.ll_min_c
```

### :mod:'sklearn.tree': Decision Trees

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1538); backlink

Unknown interpreted text role 'mod'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1541)

Unknown directive type "automodule".

```
.. automodule:: sklearn.tree
  :no-members:
  :no-inherited-members:
```

User guide: See the ref. tree' section for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1545); backlink

Unknown interpreted text role 'ref'.

 $System\ Message: ERROR/3\ (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\cikit-learn-main]\ [doc]\ [modules]\ classes.rst,\ line\ 1547)$ 

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1549)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst

    tree.DecisionTreeClassifier
    tree.DecisionTreeRegressor
    tree.ExtraTreeClassifier
    tree.ExtraTreeRegressor
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1558)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

    tree.export_graphviz
    tree.export_text
```

#### **Plotting**

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1568)

Unknown directive type "currentmodule".

```
.. currentmodule:: sklearn
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1570)

```
.. autosummary::
    :toctree: generated/
    :template: function.rst

tree.plot tree
```

### :mod:\sklearn.utils\: Utilities

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1578); backlink

Unknown interpreted text role 'mod'.

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Unknown directive type "automodule".

```
.. automodule:: sklearn.utils
   :no-members:
   :no-inherited-members:
```

Developer guide: See the ref. developers-utils page for further details.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1585); backlink Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1587)

Unknown directive type "currentmodule".

.. currentmodule:: sklearn

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1589)

Unknown directive type "autosummary".

```
.. autosummary::
    :toctree: generated/
    :template: class.rst
    utils.Bunch
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main] [doc] [modules] classes.rst, line 1595)

```
.. autosummary::
  :toctree: generated/
   :template: function.rst
  utils.arrayfuncs.min pos
  utils.as float array
  utils.assert all finite
  utils.check X y
  utils.check_array
  utils.check_scalar
  utils.check consistent length
  utils.check random state
  \verb|wtils.class_weight.compute_class_weight|\\
  utils.class_weight.compute_sample_weight
  utils.deprecated
  \verb"utils.estimator_checks.check_estimator"
  utils.estimator_checks.parametrize_with_checks
  utils.estimator html repr
  utils.extmath.safe_sparse_dot
  utils.extmath.randomized_range finder
  utils.extmath.randomized svd
  utils.extmath.fast logdet
  utils.extmath.density
```

```
utils.extmath.weighted mode
utils.gen batches
utils.gen even slices
utils.graph.single source shortest path length
utils.indexable
utils.metaestimators.available if
utils.multiclass.type_of_target
utils.multiclass.is multilabel
utils.multiclass.unique_labels
utils.murmurhash3 32
utils.resample
utils. safe indexing
utils.safe mask
utils.safe_sqr
utils.shuffle
utils.sparsefuncs.incr mean variance axis
utils.sparsefuncs.inplace_column_scale
utils.sparsefuncs.inplace row scale
utils.sparsefuncs.inplace_swap_row
utils.sparsefuncs.inplace swap column
utils.sparsefuncs.mean variance axis
utils.sparsefuncs.inplace_csr_column_scale
utils.sparsefuncs_fast.inplace_csr_row_normalize_l1
utils.sparsefuncs_fast.inplace_csr_row_normalize_12
utils.random.sample without replacement
utils.validation.check is fitted
utils.validation.check memory
utils.validation.check_symmetric
utils.validation.column or 1d
utils.validation.has fit parameter
utils.all_estimators
```

### Utilities from joblib:

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 1652)

Unknown directive type "autosummary".

... autosummary::
    :toctree: generated/
    :template: function.rst

utils.parallel_backend
    utils.register_parallel_backend
```

## **Recently deprecated**

#### To be removed in 1.3

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\scikit-learn-main\doc\modules\[scikit-learn-main][doc][modules]classes.rst, line 1666)

Unknown directive type "autosummary".

... autosummary::
    :toctree: generated/
    :template: function.rst

utils.metaestimators.if_delegate_has_method
```