**Choosing Meta-Features**

1. Collect a set of a meta-features
2. Perform feature selection methods
3. Evaluate the speed and performance of SMAC with each set of features

**Meta Features**

General:

* I Number of instances
* F Number of features
* T Number of target concept values D
* Data set dimensionality, D = I/F

Statistical:

* ρ(X, Y ) Mean absolute linear correlation coefficient of all possible pairs of features
* Skew(X) Mean skewness
* Kurt(X) Mean kurtosis

Information-theoretic properties

* H(C)norm Normalized class entropy
* H(X)norm Mean normalized feature entropy
* MI(C, X) Mean mutual information of class and attribute
* MI(C, X)max Maximum mutual information of class and attribute
* ENattr Equivalent number of features, ENattr = H(C)/MI(C, X)
* NSratio Noise-signal ratio, NSratio = (H(X) − MI(C, X))/MI(C, X)