#### AutoML: Gaussian Processes

Gaussian Proccesses: Additional Material

Bernd Bischl Frank Hutter Lars Kotthoff Marius Lindauer Joaquin Vanschoren

#### Notation

In this part,

- $\bullet$   $(\mathbf{x}_*, y_*)$  denotes a single test observation, excluded from the training data.
- $\mathbf{X}_* \in \mathbb{R}^{n_* \times p}$  denotes a set of  $n_*$  test observations.
- $oldsymbol{y}_* \in \mathbb{R}^{n_* imes p}$  denotes the corresponding outcomes, excluded from the training data.

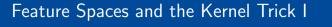
# Noisy Gaussian Processes

## Noisy Gaussian Processes

### GP vs. Kernelized Ridge Regression

Bayesian Linear Regression as a GP

### Bayesian Linear Regression as a GP



#### Summary: Gaussian Process Regression