



# Density Selection

## 1 Why

We have a dataset in some infinite set and want to summarize it by a probability density.

## 2 Overview

We have an uncountable set of outcomes  $A$ . We have a dataset  $(a^1, \dots, a^n)$ . We want to define a correspondence between the dataset and probability densities over the set of outcomes  $A$ .

We will call proposals for such a correspondence *principles of density selection*.

Notice that we do not want a density on the record sequences, we want a density on  $A$  on  $A^n$ .