Distribution Approximation

1   Why

We have a distribution which for some reason is unsuitable, and which we
want to replace with one more suitable. For example, the distribution may
require enumerating the probability of each outcome to express. Or it may be
unreasonable as a result of our common sense. In both cases we want to find a
different distribution (from the set of those which is easier to express or from
the set of those which is more reasonable based on our common sense) that is
in some way close to the original.

2   Definition

Distribution approximation is a mathematical optimization problem in which
we find a distribution (from a given set) which is near to a particular distri-
bution of all distributions on the same set