

CONSTRUCTION OF SOME PROBABILITY DISTRIBUTIONS BY MAXIMUM ENTROPY PRINCIPLE

Costel M. BĂLCĂU
University of Pitești, Faculty of Sciences,
Department of Computer Science and Mathematics
cbalcau@linux.math.upit.ro

Abstract

The paper reanalyzes the usage of Maximum Entropy Principle as selection criterion for a probability distribution in the countable case. The maximum entropy distribution is reexamined in this case and the main results are presented in the uniqueness, existence and characterization theorems. Using these, theorems are reobtained some countable probability distributions.

Key words: Countable probability distribution, Shannon entropy, Maximum Entropy Principle (*MEP*), maximum entropy distribution