

60. Zvi Artstein and Roger J-B Wets, **Sensors and information in optimization under stochastic uncertainty**. Mathematics of Operation Research 18 (1993), 523-547.

Abstract. The paper offers a framework for the analysis of information available in stochastic optimization problems. The setup proposed here applies to the situation where the decision maker can seek more information about the stochastics of the problem. The information collected in the inquiry only allows for a redefinition of the distribution of the stochastic elements, and the inquiry process itself may introduce new errors and uncertainties. The tool we introduce is termed sensor. Compared with previous methods of analyzing information, e.g., σ -fields or signals, sensors allow for a quantitative analysis in the evaluation of the gain that may result in inquiring information. In this paper we work out the abstract model, and demonstrate it on a concrete problem which is solved numerically.

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