

# Sensor Selection With Energy Harvesting Constraints

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**Abstract:**

In this paper, we study the sensor selection problem in energy harvesting wireless sensor networks. Our goal is to minimize the distortion in the reconstruction of the underlying source subject to the causality constraints imposed by the energy harvesting process. We formulate this problem as an optimization problem. Due to the problem being non-convex, we propose to solve the power allocation problem for a given sensor selection and provide an EH-aware sensor selection policy. We assess the performance of the proposed policy by means of simulations and a lower bound that we also establish.