

# Signal Processing Issues in Wireless Sensor Networks<sup>1</sup>

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Signal processing plays a major role in the optimization of wireless sensor networks (WSNs), both at the physical layer of wireless transport and at the applications layer of distributed inference. This paper will review a number of recent results in this general area. These include results relating to the following: distributed and collaborative algorithms for inferential problems arising in applications of WSNs, sensor scheduling and energy tradeoffs in detection networks, energy-collaboration tradeoffs in estimation networks, collaborative beamforming, and related issues. Details of most of these results can be found in the references cited below.

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