

# Information Driven Approach for Sensor Positioning in Wireless Sensor Networks

A. Ali, C. Xydeas, L. Mihaylova, E. H. Gning

School of Computing & Communications  
University of Lancaster, Lancaster, UK  
{a.ali, c.xydeas, mila.mihaylova, e.gning} @lancaster.ac.uk

**Abstract:** Wireless Sensor Networks (WSNs) are amongst the most important of the new emerging technologies and have shown an explosive growth in recent years for monitoring physical phenomena. Large scale WSNs face various challenges such as lack of coverage, large deployment areas and need of efficient sensor positioning. This paper introduces an approach for sensor management by using Kriging interpolation. The proposed technique affords monitoring of phenomena of interest in a distributed manner. A very good accuracy is achieved by using the available data coming from different sensor nodes. This is illustrated over an example for temperature monitoring.