

1106-VC-285

Pawel Dlotko* (dlotko@sas.upenn.edu). *Topological sensor networks.*

Distributed sensing, information and computation based on sensor networks comprise a new frontier in engineering and science. Cheap, easily available sensors performing collectively complicated tasks are forthcoming, and in security and other applications involving sensor networks the coverage of a region of interest is of a high importance. In this talk we will quickly summarize progress made over the last eight years in topological sensing and detection, and propose a revised definition of topological coverage which makes all the topological criteria more intuitive. Then we will consider a problem of sensor repairs in working sensor network which used to cover the region of interest. (Received August 19, 2014)