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Current research interest	Large deviations, Information Theory, Statistical Mechanics for Random Networks.
Research methods	Large Deviation Theory
Publications	<p>Doku-Amponsah, K.(2017). Local Large Deviations: a McMillian Theorem Typed Random Graph Processes. <i>Journal of Mathematics & Statistics</i> 13(4), pp.325-329.</p> <p>Doku-Amponsah, K.(2017). Asymptotics of the Partition function of Ising Model on Inhomogeneous Random Graphs. <i>Far East J. of Mathematical Sciences</i> 102(12), pp. 3141-3164</p> <p>Doku-Amponsah, K.(2017). Large Deviation, Basic Information Theory for Wireless Sensor Networks. <i>Journal of Mathematics & Statistics</i> 13(4), pp.347-352.</p>

LARGE DEVIATION PRINCIPLE FOR EMPIRICAL MEASURES OF MULTITYPE RANDOM NETWORKS

By K. Doku-Amponsah

In this article we study the stochastic block model also known as the multi-type random networks (MRNs). For the stochastic block model or the MRNs we define the empirical group measure, empirical cooperative measure and the empirical locality measure. We derive for these empirical measures, large deviation principles for the MRNs in the weak topology. As an application, we discuss some possible extension of our main result to process level LDP for the evolutionary and co-evolutionary processes on the MRNs.