Information Inequalities for Binomial Distributions

Peter Harremoes
Copenhagen Business College

Abstract: Ideas from information theory can be used to formulate and prove various inequalities related to the binomial distribution. They include inequalities for tail probabilities, bounds on divergence for hypergeometric distributions and Poisson distributions, and bounds on the discrete entropy of binomial distributions. Some of these inequalities are well established and some are new. In this talk I will review these result and present some unifying ideas.