

Title: Leveraging methods for massive data logistic regression

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Abstract:

For massive data with super-large sample size, it is computationally infeasible to obtain maximum likelihood estimates for unknown parameters, especially when the estimators do not have closed-form solutions. In this talk, I will present fast leveraging algorithms to efficiently approximate the maximum likelihood estimates in logistic regression models with binary responses, one of the most commonly used models in practice for classification. I will also present some theoretical results on consistency and asymptotic normality of the estimators. Synthetic and real data sets are used to evaluate the practical performance of the proposed methods.

About the speaker: Prof. Ping Ma is a Professor of Statistics and co-directs the big data analytics lab at the University of Georgia, USA. He was Beckman Fellow at the Center for Advanced Study at the University of Illinois at Urbana-Champaign, Faculty Fellow at the US National Center for Supercomputing Applications, and a recipient of the US National Science Foundation CAREER Award. His paper won the best paper award of the Canadian Journal of Statistics in 2011. He serves on multiple editorial boards including the Journal of the American Statistical Association and Statistical Applications in Genetics and Molecular Biology.