Title:
Trimmed Density Ratio Estimation

Speaker:
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Time & Place:
Monday, October 9, 2017
4:00p
Room 133 SMI
Cookies & Coffee @ 3:30, Rm 1210MSC

Abstract:
Density ratio estimation has become a versatile tool in machine learning community recently. However, due to its unbounded nature, density ratio estimation is vulnerable to corrupted data points, which often pushes the estimated ratio toward infinity. In this paper, we present a robust estimator which automatically identifies and trims outliers. The proposed estimator has a convex formulation, and the global optimum can be obtained via subgradient descent. We analyze the parameter estimation error of this estimator under high-dimensional settings. Experiments are conducted to verify the effectiveness of the estimator.