Convergence of the nonparametric EM Algorithm

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Abstract: In this presentation we consider the nonparametric EM algorithm, the EM algorithm based on empirical likelihood rather than the parametric likelihood. We develop the theoretical underpinnings and assess the convergence rates of the nonparametric EM algorithm. We provide a comparison of the convergence rates with that of the parametric EM algorithm. We also explore the effect of initial estimates on the convergence and explore if the geometric progression provides robust starting values. Examples will be given.