



On the convergence of maximum variance unfolding

Ery Arias Castro

(Joint work with Bruno Pelletier, Université Rennes II, France)

Resumo: Maximum Variance Unfolding (MVU) is one of the main methods for nonlinear dimensionality reduction. We study its large-sample limit under standard assumptions. We find that it is consistent when the underlying submanifold is isometric to a convex subset. In other cases, we provide some simple examples where it fails to be consistent.