T-18 Direct Density-Derivative Estimation and its Application in KL-Divergence Approximation

Hiroaki Sasaki (U Tokyo), Yung-Kyun Noh (KAIST) & Masashi Sugiyama (U Tokyo)

- Problem: k-th Order Density-Derivative Estimation.
- Approach: Avoid Density Estimation and Directly Estimate Density-Derivatives.
- Proposed Method: Mean Integrated Square Error for Density-Derivatives (MISED).
 1st-Order Derivative Est. for a Gaussian Density
- Application: Nonparametric KL
 Divergence Estimation via Metric Learning.



