Jan 30, 2017



Tecall the two-sample statistic:

$$E(A,B) = \frac{m_1 m_2}{m_1 + m_2} \left\{ \frac{2}{m_1 m_2} \sum_{i=1}^{m_1} \sum_{j=1}^{m_2} D_{x}(a_{i,b_j}) - \frac{1}{m_2} \sum_{i=1}^{m_2} \sum_{j=1}^{m_2} D_{x}(b_{i,b_j}) \right\}$$

$$G_{\alpha}(A,B) = \frac{1}{\sum_{i=1}^{m_1} \sum_{j=1}^{m_2} D_{\alpha}(a_i,b_j)}$$

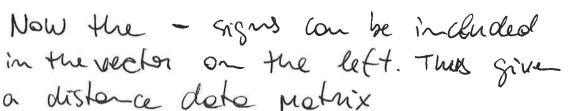
We sow that
$$g_{\alpha}(A,B) = (\frac{1}{m_1 m_2}) \stackrel{?}{=} I_m D_{AB} \stackrel{?}{=} I_{m_2}$$

$$E(A,B) = \frac{n_1 n_2}{n_1 + n_2} 2g_{\alpha}(A,B) - g_{\alpha}(A,A) - g_{\alpha}(B,B)$$

Forgeting about m, m2 for NOW:

2 I'm DAB Inz - I'm DAA Im, - I'm DBB Inz which is the some of

$$\frac{\overrightarrow{I}(n_1+n_2)}{B_{BA}} \left(\frac{-D_{AB}}{D_{BB}} \right) \xrightarrow{\overrightarrow{I}(n_1+n_2)}$$



without knowing the structure, we must solve on optimization mobilen of the form XTDI /

where $xi \in \{+1, -1\}$, $x \in \mathbb{R}^{m_1 + m_2}$, $\vec{1} \in \mathbb{R}^{m_1 + m_2}$

E is spinite if A≥B. E→∞ if AZB.

Thus I guess we have

min $x^T D \vec{1}$ 5. $t x_i^2 = 1$