## 1 Intro

## 1.1 Notation

In the following notes,  $\mathbf{X}_i \in \mathbb{R}^{n \times p_i}$  will refer to the observation matrix for the *i*-th 'view' of some assumed underlying phenomenon, where n is the number of observations and  $p_i$  is the ambient dimension of the *i*-th view.  $\mathbf{\Phi}_i \in \mathbb{R}^{p_i \times k}$  will refer to some linear transform of  $\mathbf{X}_i$  into a k-dimensional vector space. The  $k \times k$  identity matrix is denoted  $\mathbf{I}_k$ .

## 1.2 Bregman CCA

Basic idea is replace the Frob norm in the CCA objective with a Bregman divergence.