

Let be a_i and b_j Vectors
and X, Y Matrixes
Maximize $\Sigma \text{diag}(XY)$

s.t.

$$\Sigma_i^p (X^2)_{i,j} \leq a_i$$

$$\Sigma_j^q (X_{i,j})^2 \leq b_j$$

$$\Sigma_i^p (Y^2)_{i,j} \leq a_i$$

$$\Sigma_j^q (Y_{i,j})^2 \leq b_j$$