Econometrics **May 11, 2023**

Topic 15: Sparse Orthogonal Factor Regression

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Key points: Sparcity and dimensionality reduction for Multivariate Linear Regression models.

Disclaimer: *The note is built on Prof. Jinchi Lv's lectures of the course at USC, DSO 607, High-Dimensional Statistics and Big Data Problems.*

Consider a Mutlivariate Linear Regression (MLR) model

$$\underbrace{\mathbf{Y}}_{n\times q} = \underbrace{\mathbf{X}}_{n\times p} \cdot \underbrace{\mathbf{C}}_{p\times q} + \underbrace{\mathbf{E}_{n\times q}}$$