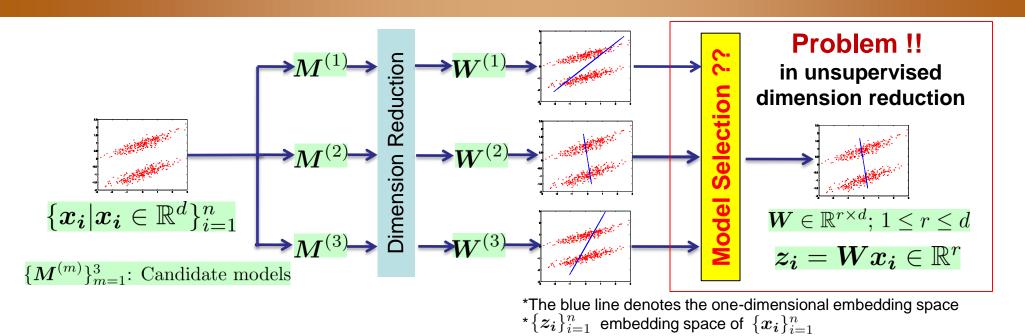
## Unsupervised Dimension Reduction via Least-Squares Quadratic Mutual Information

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We propose to use the quadratic mutual information (QMI) in unsupervised dimension reduction.

$$\mathrm{QMI} := \iint \Big( p(\boldsymbol{z}, \boldsymbol{x}) - p(\boldsymbol{z}) p(\boldsymbol{x}) \Big)^2 \mathrm{d}\boldsymbol{z} \mathrm{d}\boldsymbol{x}$$

Our method allows objective model selection based on cross-validation.

