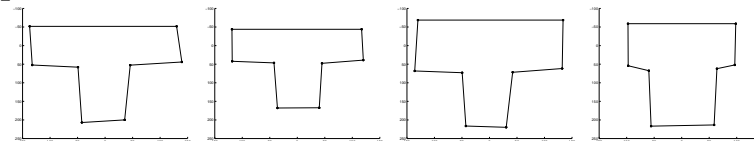


## PDM Example

Robert B. Fisher  
School of Informatics  
University of Edinburgh

## Representing the TEEs using

Have 8 2D points for each TEE in standard position



Have  $N = 31$  instances with variations

Can we make a model of the TEEs? **YES!**

## Representing the TEEs using PDMs II

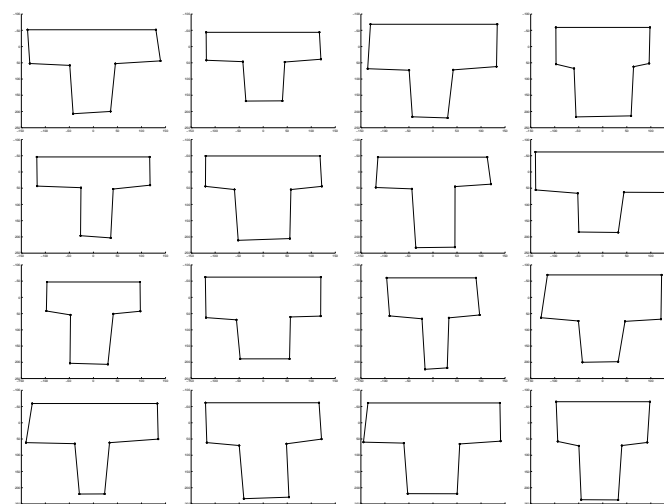
Each corner point in the TEE model has a:

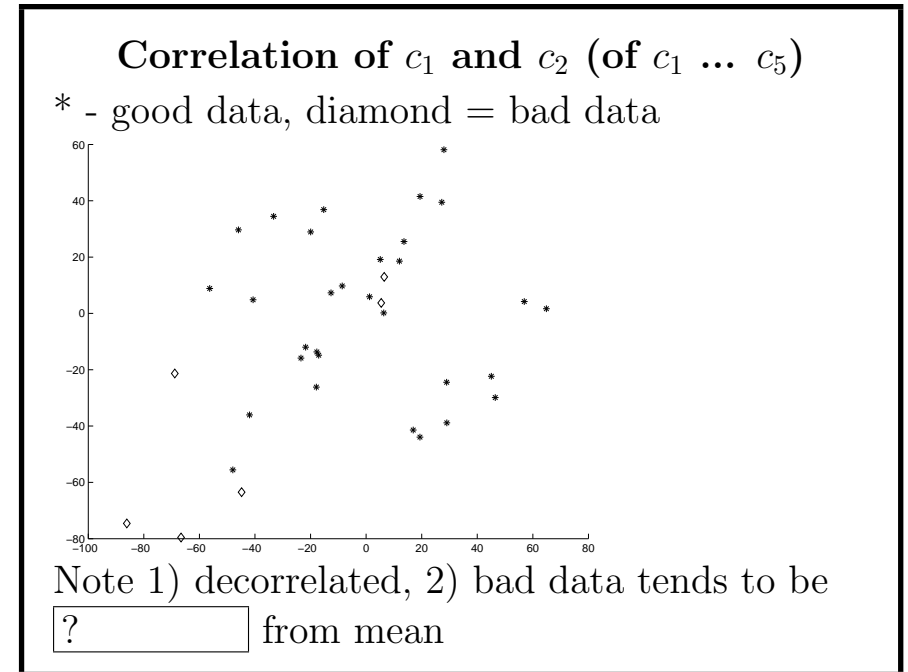
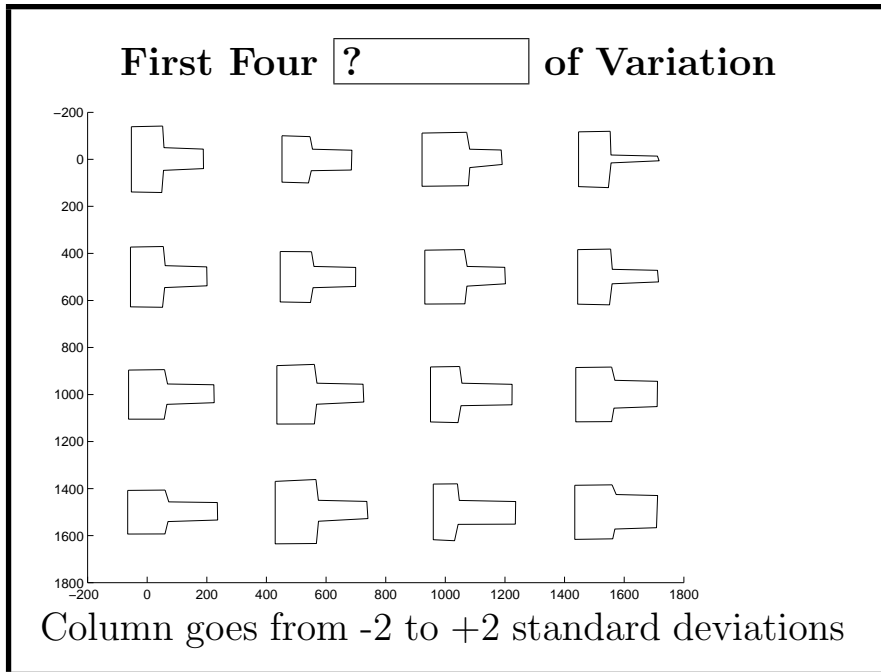
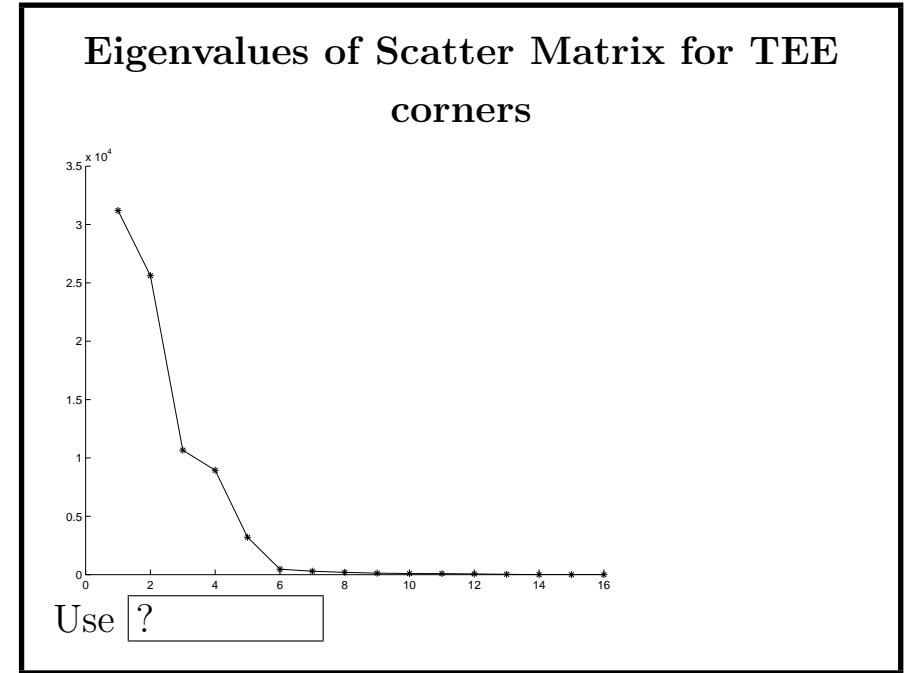
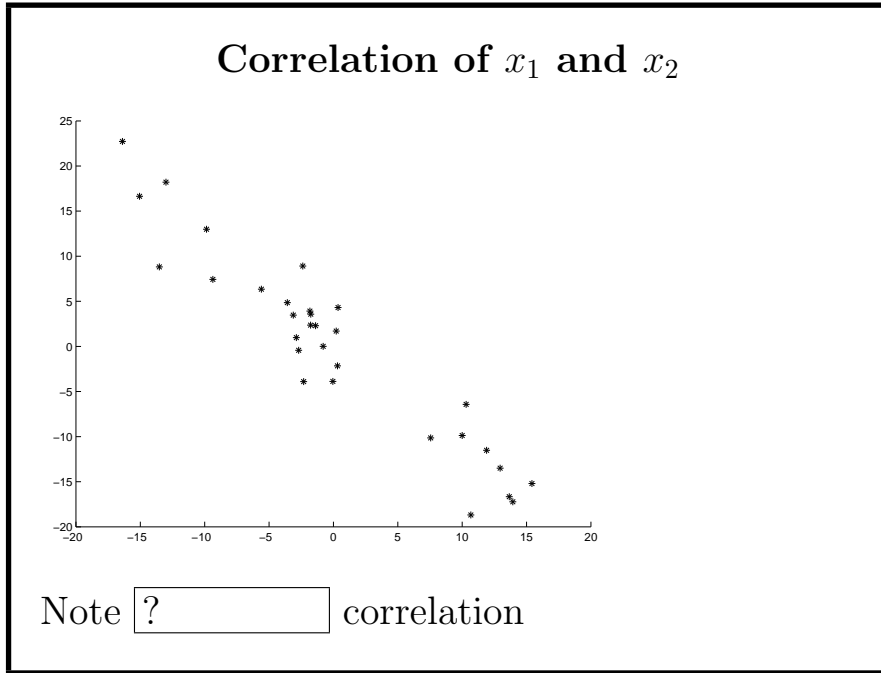
- Standard position
- Modified by shape variations

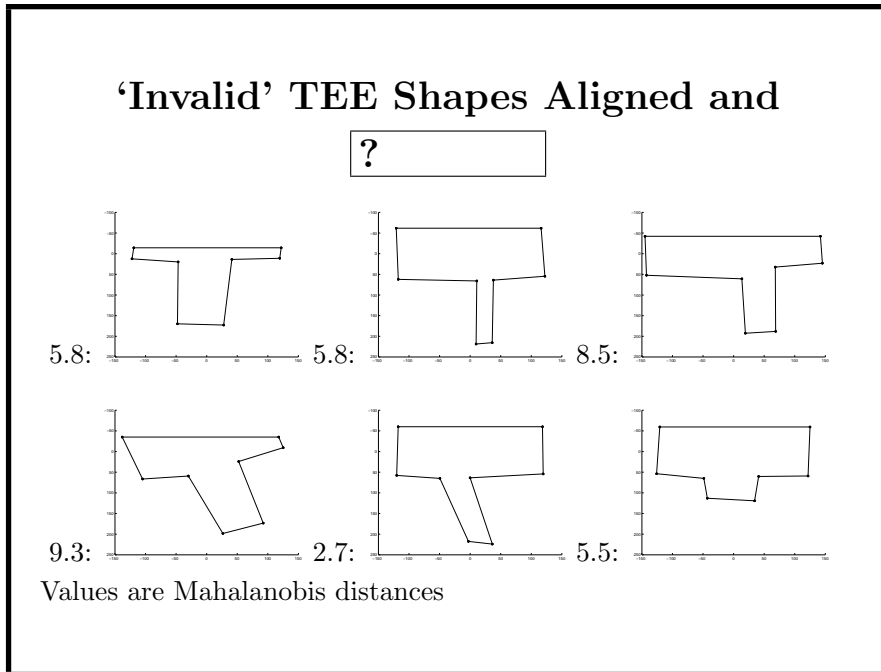
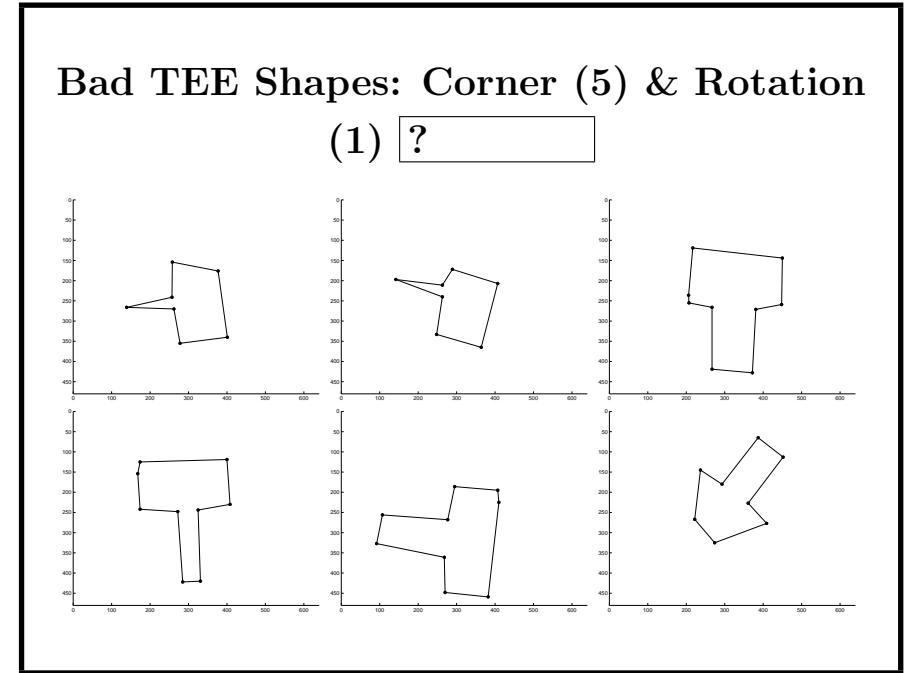
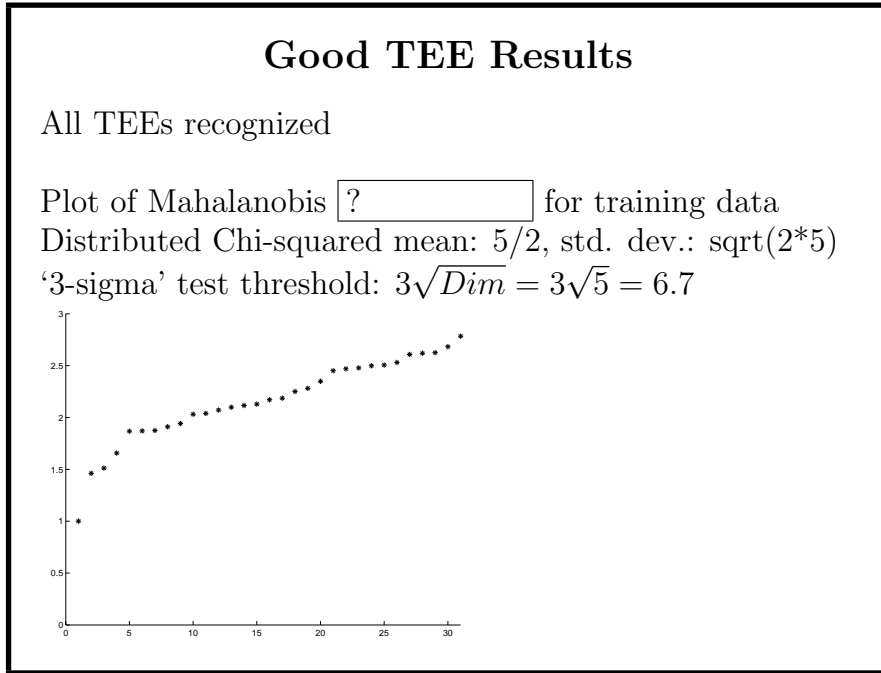
Use a Point Distribution Model (mean + PCA based main variation vectors) to represent structural variations and statistical model (mean + covariance matrix) to represent

variation

## Some of Data







### What We Have Learned

1. Usually can use fewer eigenvectors/PCs
2. PCs may represent standard modes of variation
3. Can recognize good examples using