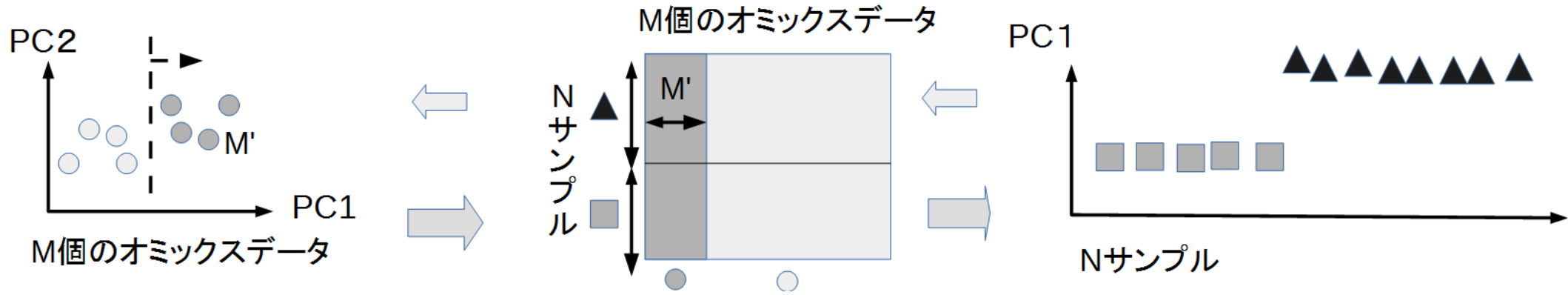


# T-12 Heuristic principal component analysis based unsupervised feature extraction and its application to bioinformatics Y-h. Taguchi, Dept. Phys., Chuo Univ.

We have developed Principal Component Analysis Based unsupervised Feature Extraction



1. Suppose that you have  $N$  samples  $\times$   $M$  features
2. Embed features by PCA
2. Investigate contributions from samples to each PC
3. Select  $M'$  ( $<M$ ) outliers along the specified PC
4. replace  $N \times M$  with  $N \times M'$ .