PDM Discussion

Robert B. Fisher
School of Informatics
University of Edinburgh

PDM Problems

- Getting same number of points (3 failures on "good" data)

- Getting points in the same positions on smooth curves

- Alignment when shape too extreme

Discussion

- Applicable to smooth curves

- Applicable to other data beside points, 3D, ultrasound

- Covariance matrix links correlations between pairs of features. What about triples, ...?

- Can extend to include greylevel variations

- Training samples need not be in order (batch mode)

What We Have Learned

- Point Distribution Model (PDM) method for representing classes of objects

- Principal Component Analysis (PCA) decomposition for estimating the dominant modes of variation