Title ??

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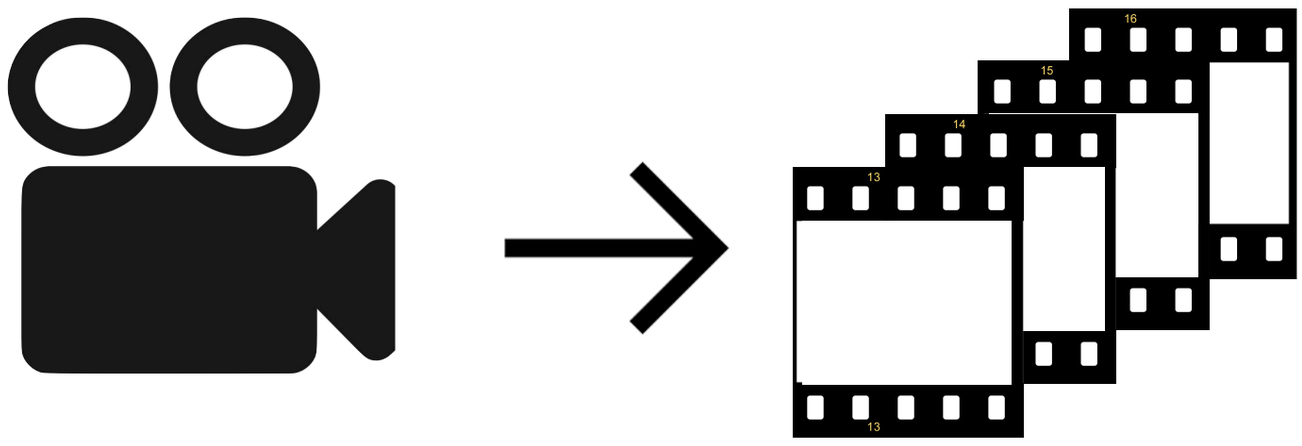
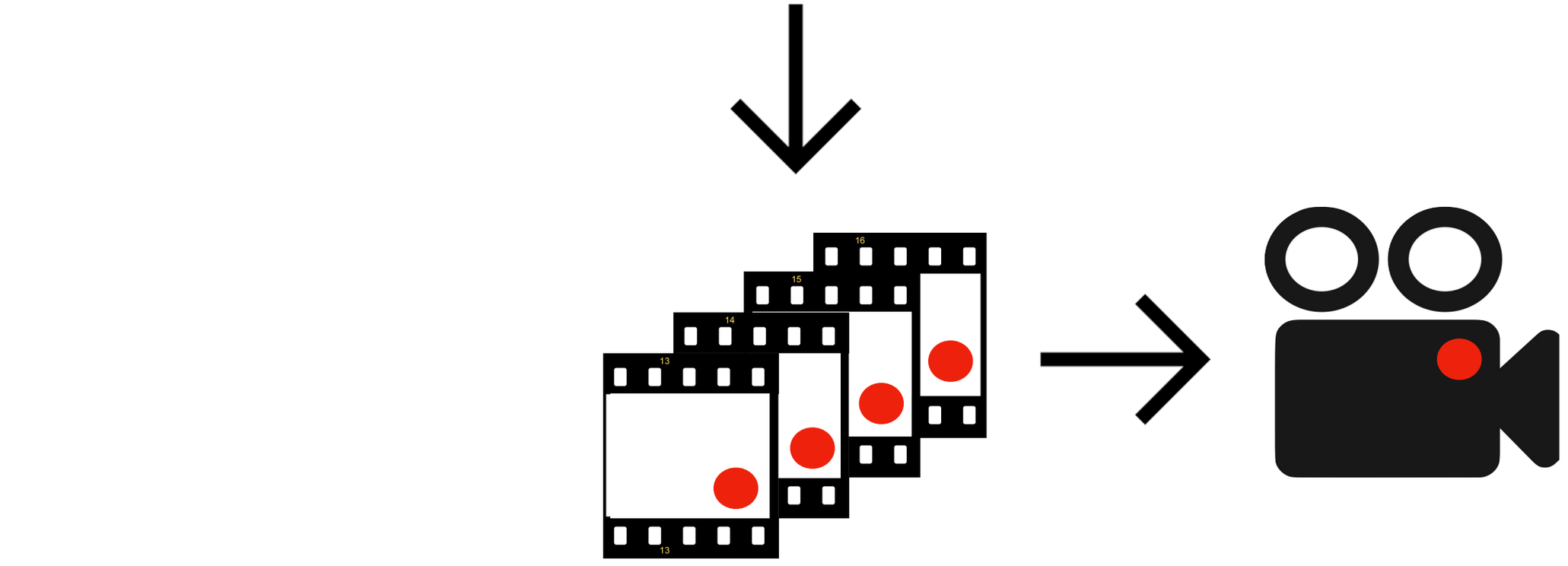
Idea





Clustering

with k-mean

Iteratively minimise the distance between each point and the **centroids**

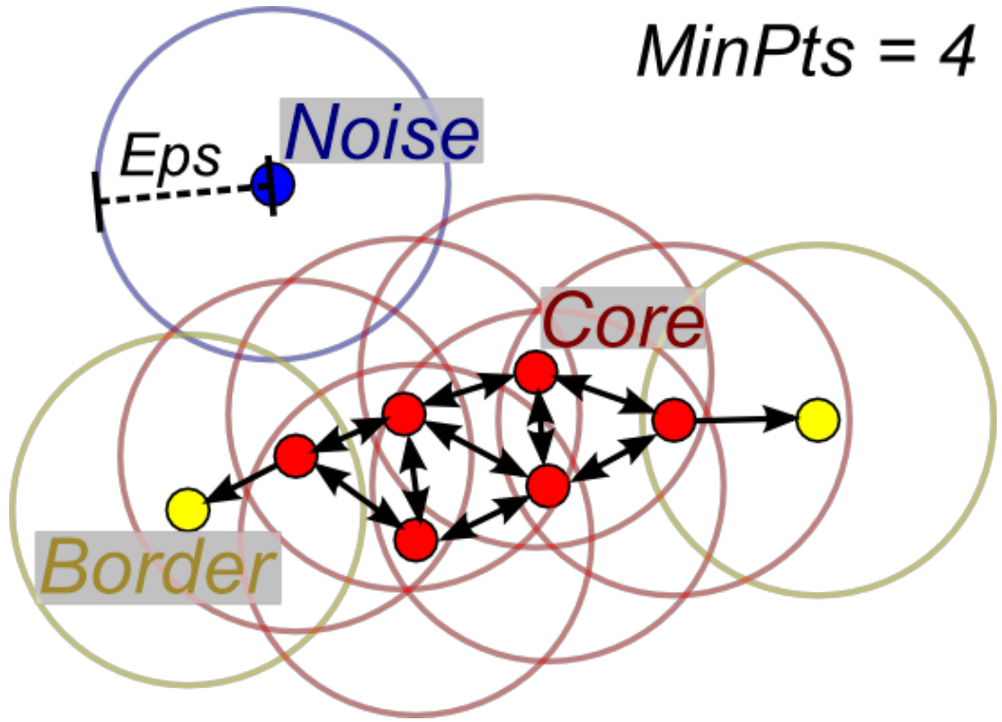
$$\arg\min_j D(x_i, c_j) \quad j = 1, \ldots, k$$

and compute the new **centroids** doing the mean of the clusters

$$c_j = \frac{1}{n_j} \sum_{x_i \in C_j} x_i$$

Clustering

with DBSCAN



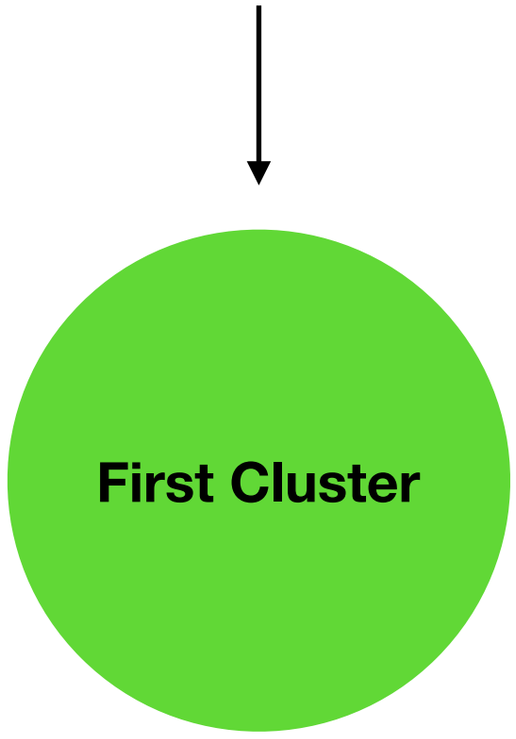
The **core** points together with the **border** points will form the clusters. The **noise** points will be discarded.

Clustering

with Spectral

This algorithm need the adjacency matrix of the image.
The second smallest eigenvector **x2** is then used to create the clusters.

If x2(p) < 0



If x2(p) > 0

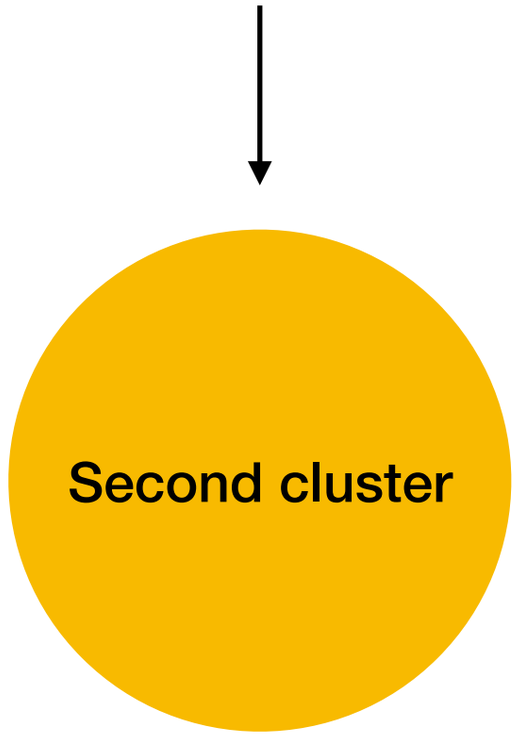
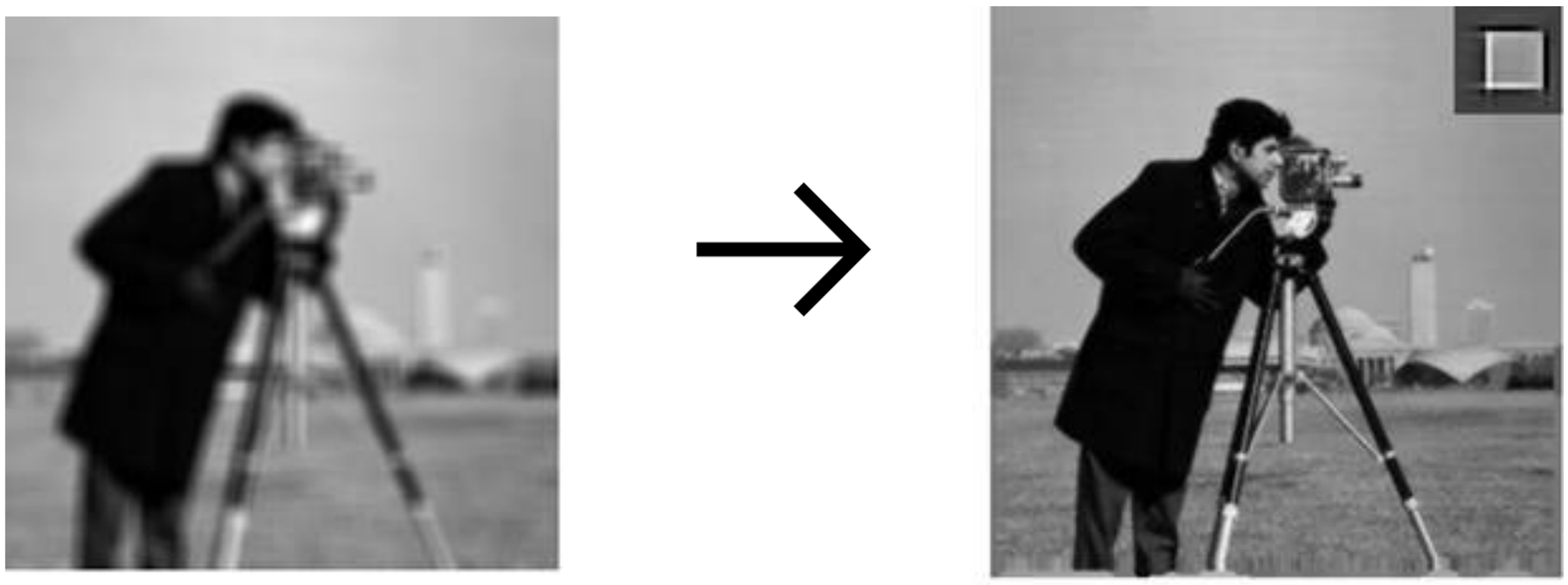
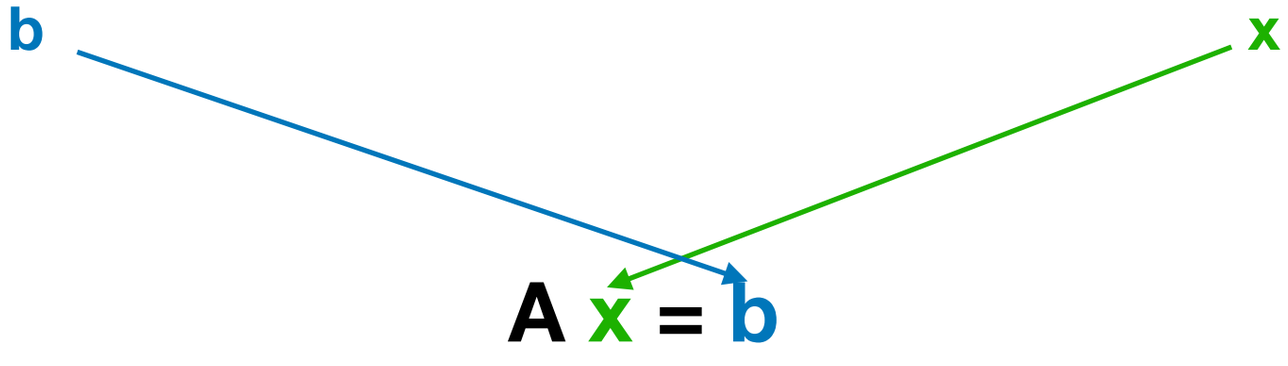
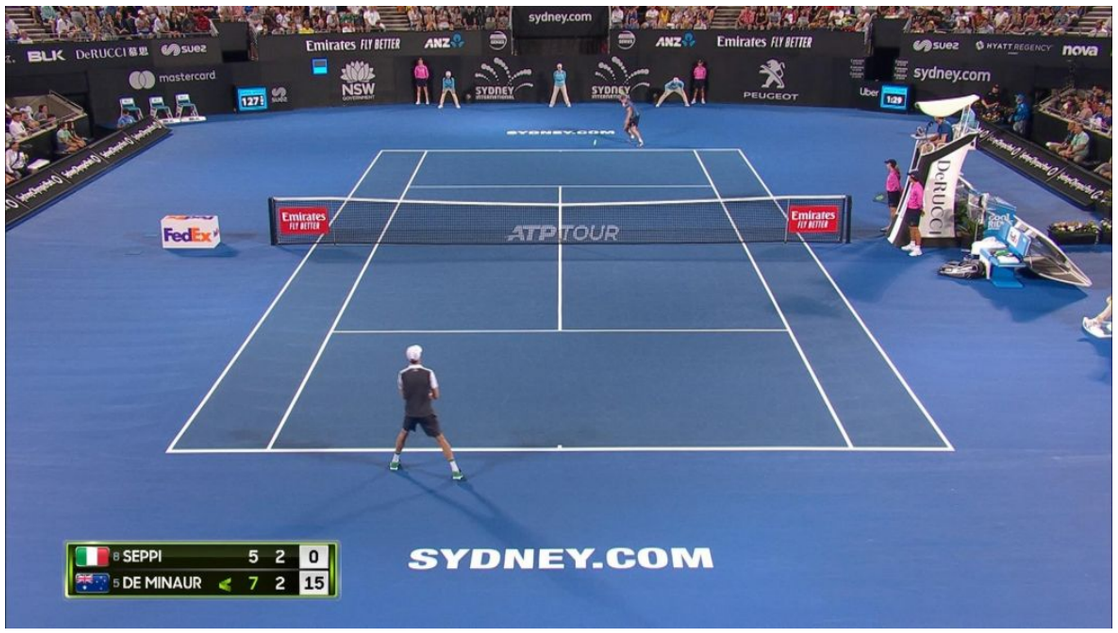


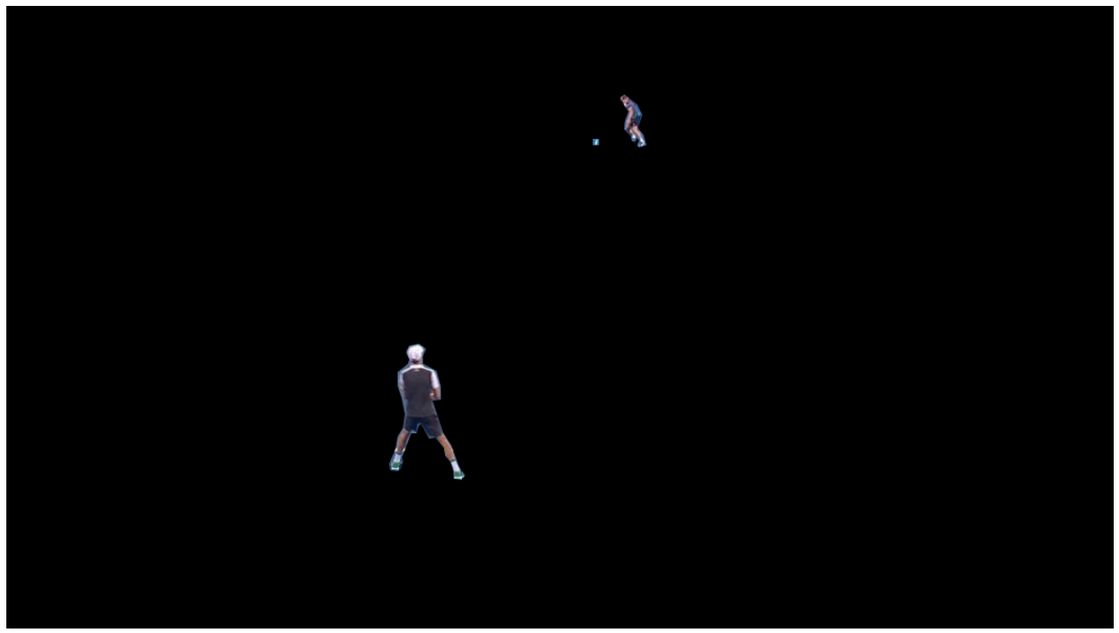
Image Deblurring



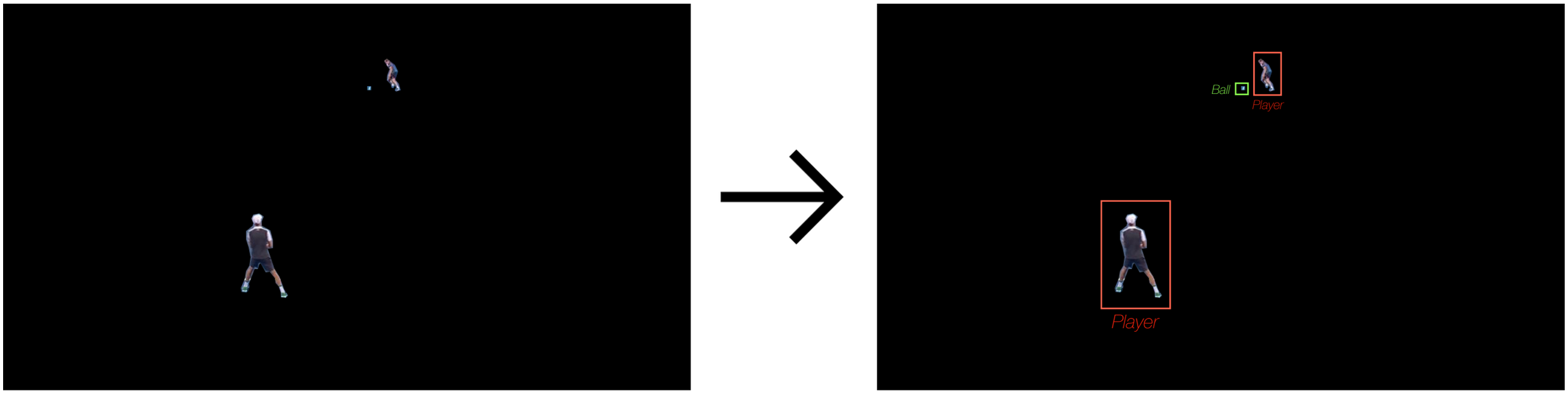


Feature Extraction





Machine Learning



Parallelising