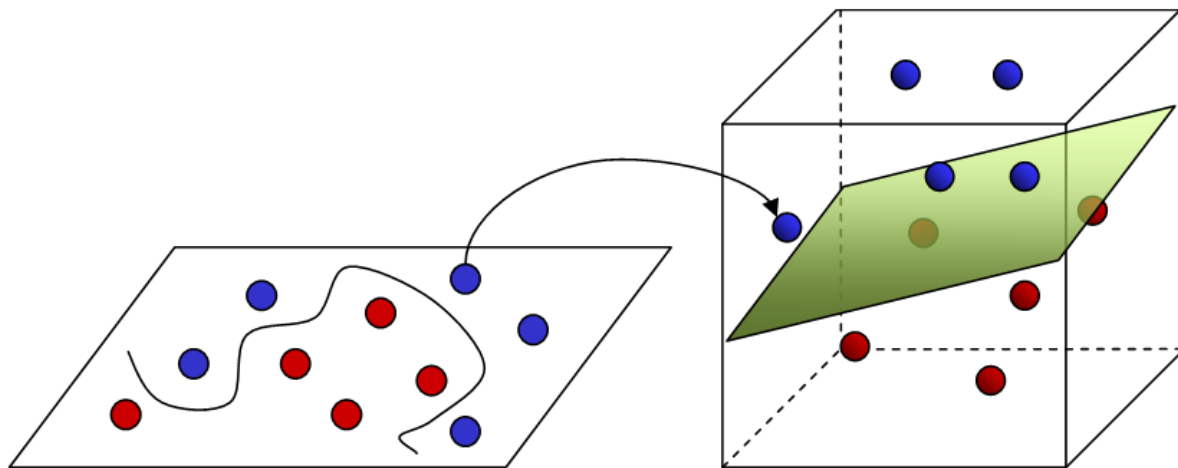


Projecting to Higher Dimension

Projecting to Higher Dimension

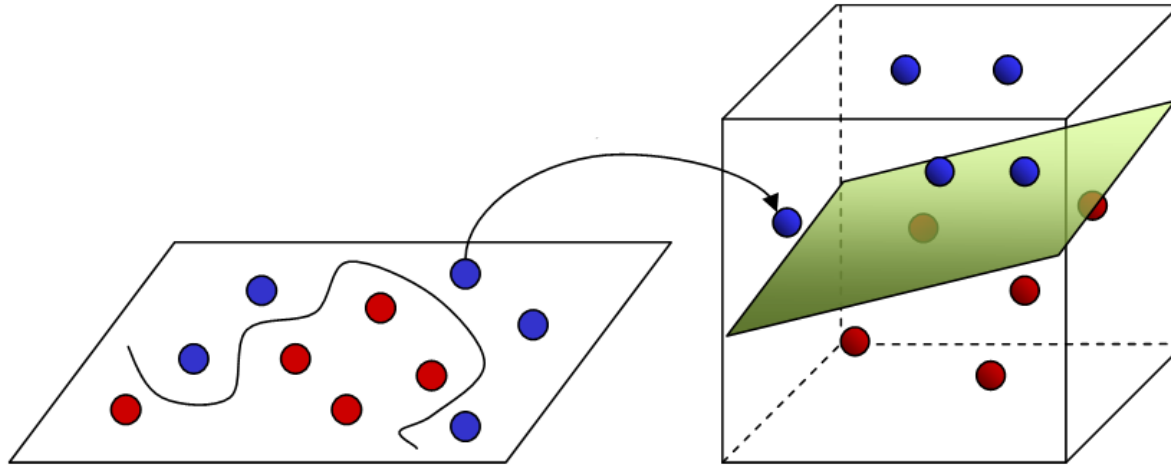


Input Space

Feature Space

Projecting to Higher Dimension

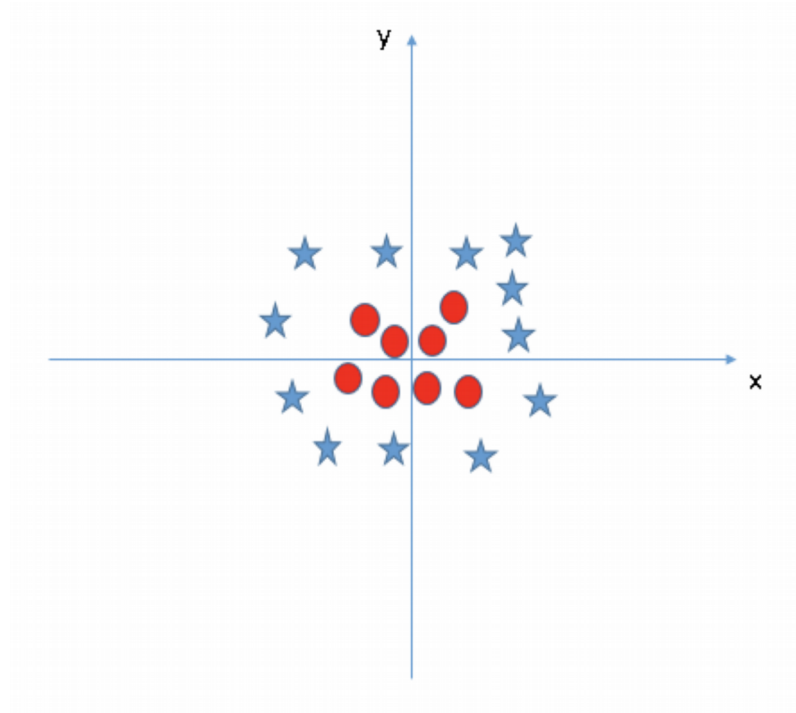
?



Input Space

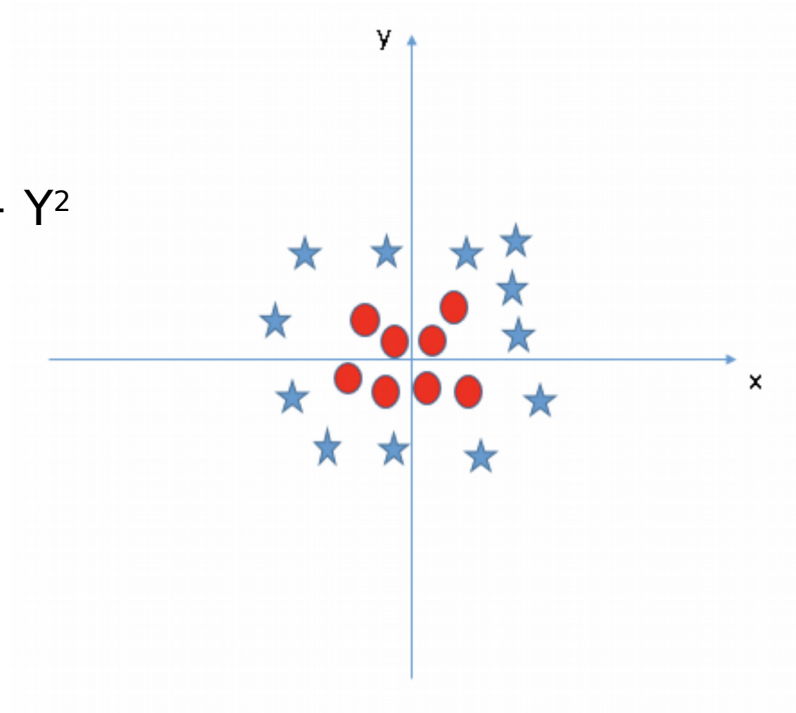
Feature Space

Projecting to Higher Dimension

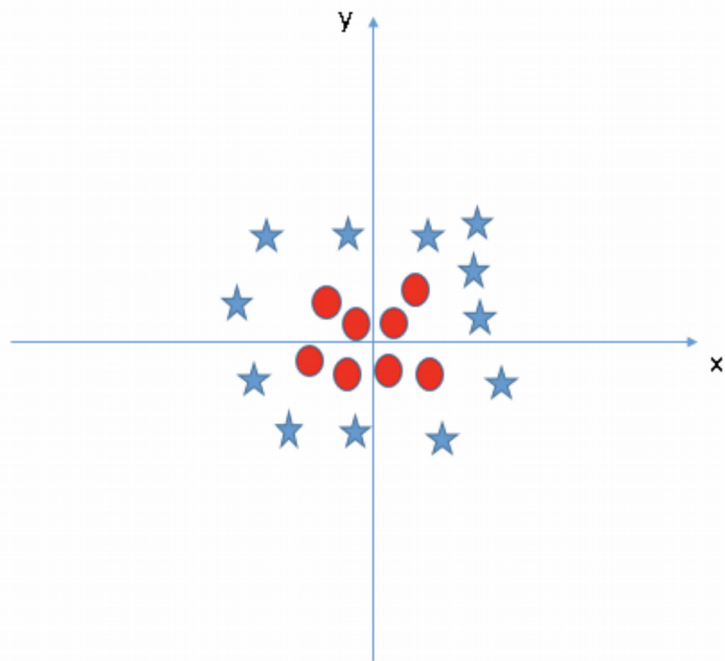


Projecting to Higher Dimension

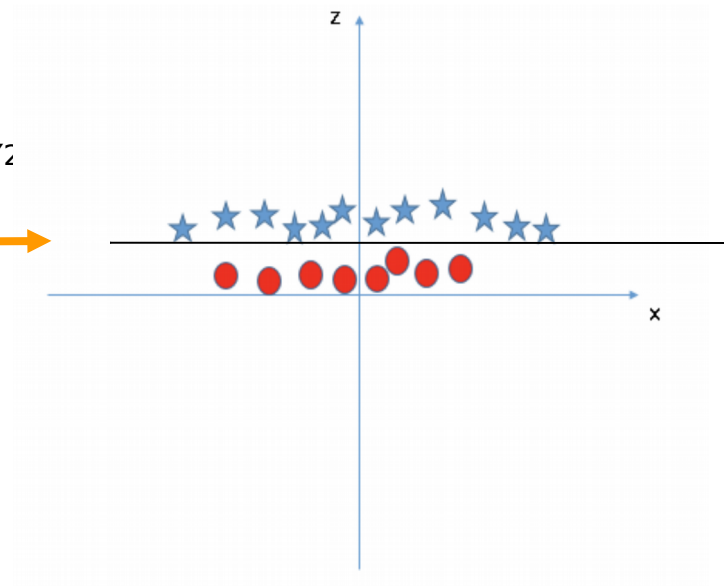
$$Z = X^2 + Y^2$$



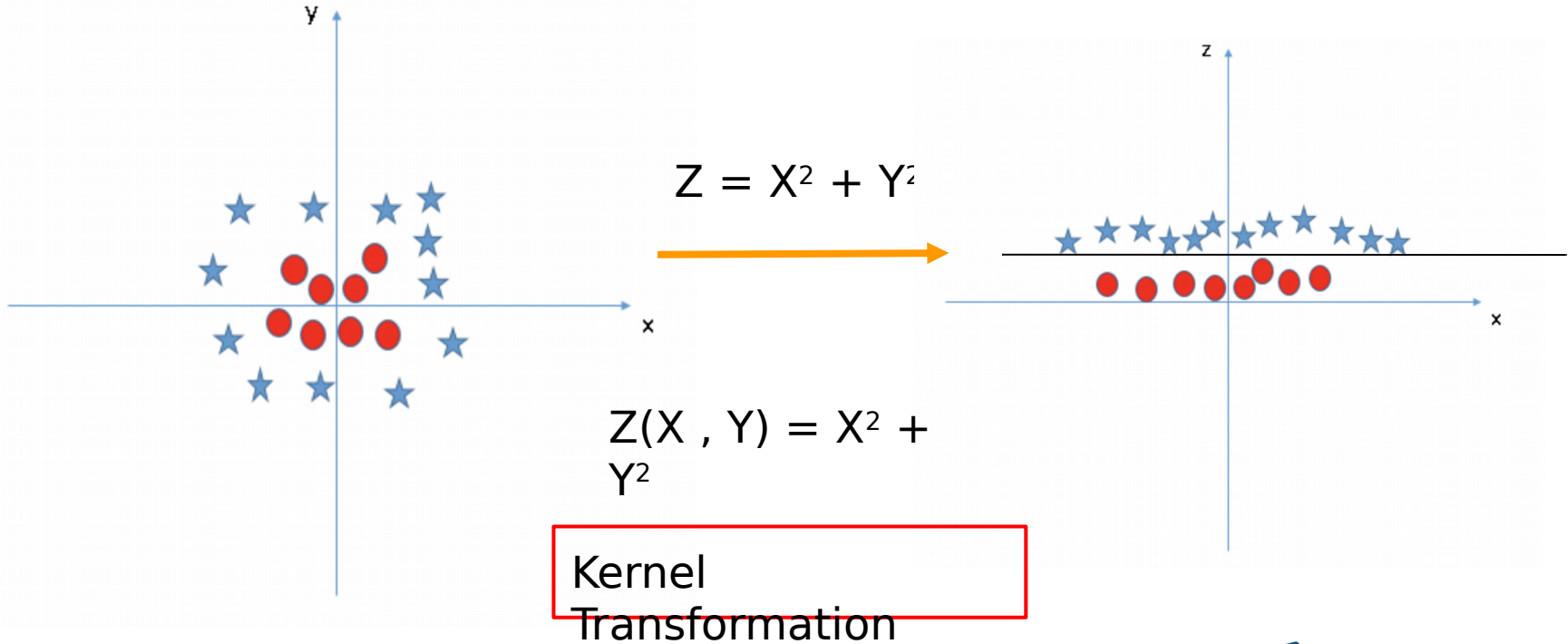
Projecting to Higher Dimension



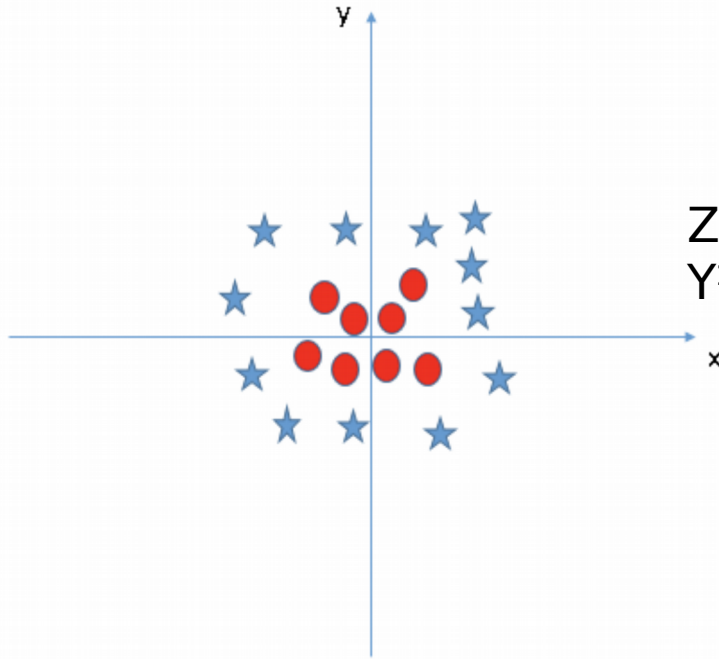
$$Z = X^2 + Y^2$$



Projecting to Higher Dimension

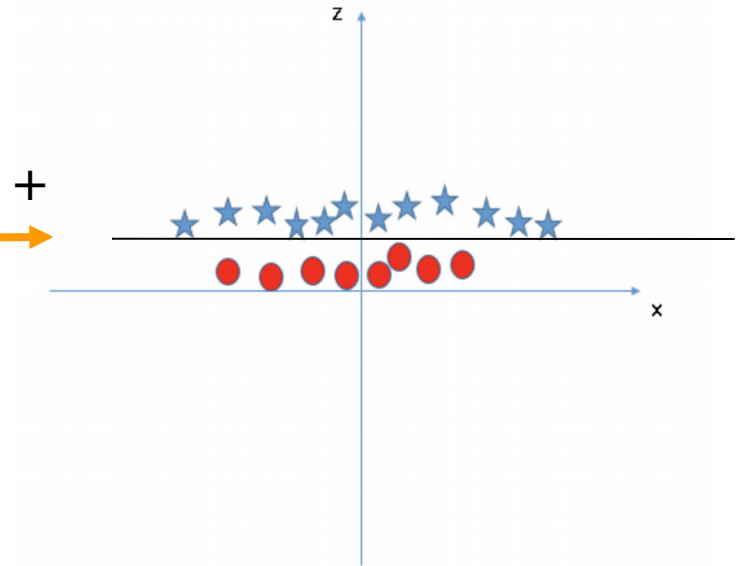


Projecting to Higher Dimension



$$Z(X, Y) = X^2 + Y^2$$

An orange arrow points from the equation to the right, indicating a transformation or projection.



Projecting to Higher Dimension

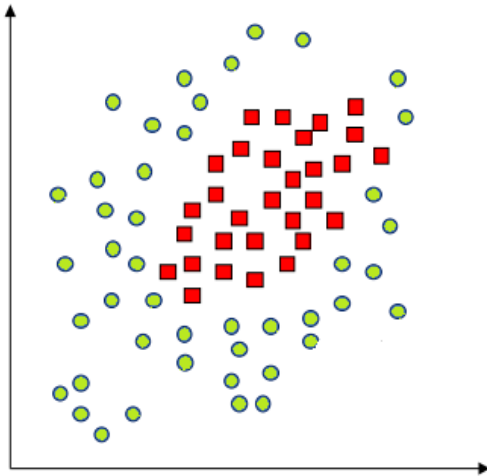
$$Z(X, Y) = \exp\left(-\frac{\|X - Y\|^2}{2\sigma^2}\right)$$

'Rbf' radial basis function/
Gaussian Kernel

Projecting to Higher Dimension

$$Z(X, Y) = \exp\left(-\frac{\|X - Y\|^2}{2\sigma^2}\right)$$

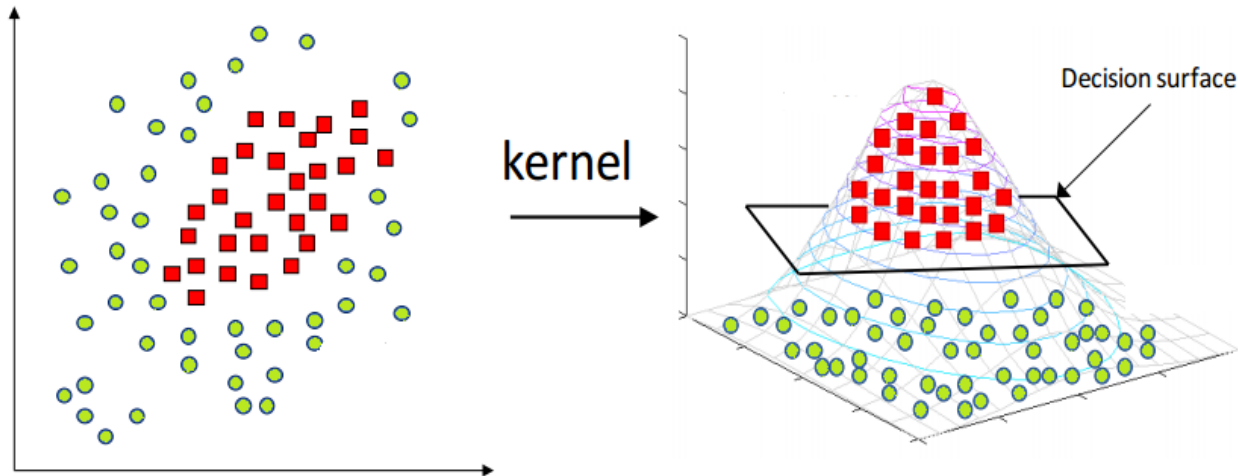
'Rbf' radial basis function/
Gaussian Kernel



Projecting to Higher Dimension

$$Z(X, Y) = \exp\left(-\frac{\|X - Y\|^2}{2\sigma^2}\right)$$

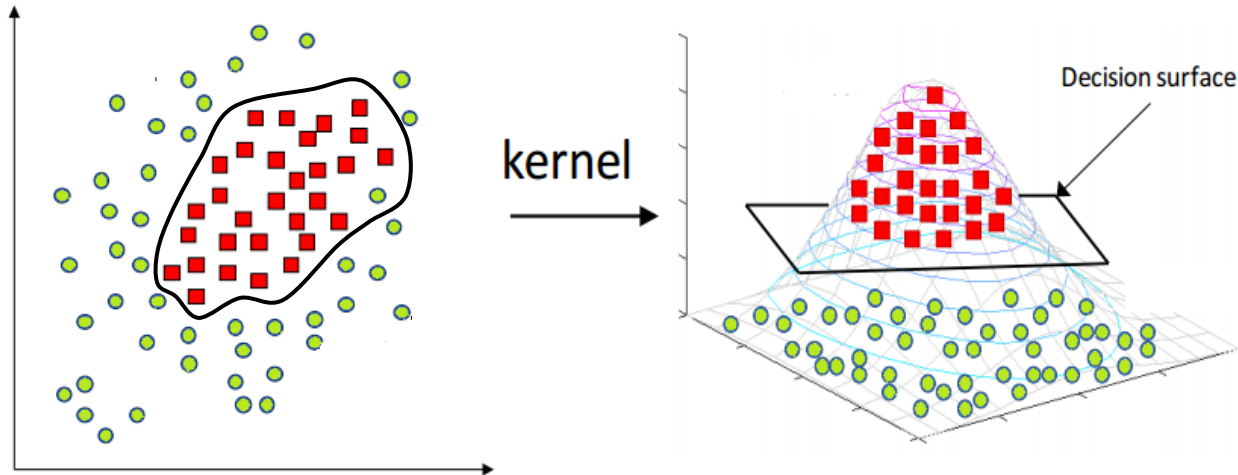
'Rbf' radial basis function/
Gaussian Kernel



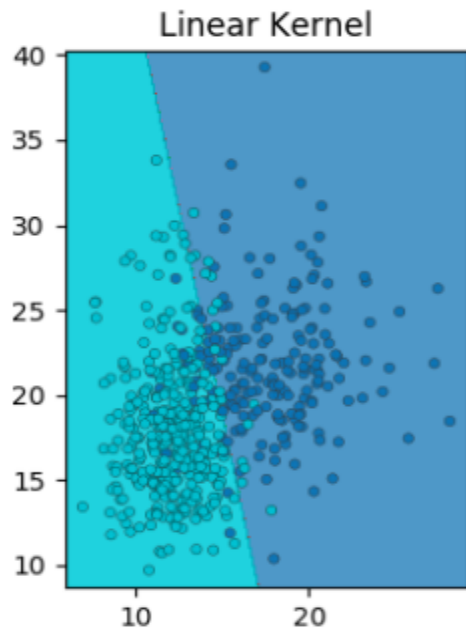
Projecting to Higher Dimension

$$Z(X, Y) = \exp\left(-\frac{\|X - Y\|^2}{2\sigma^2}\right)$$

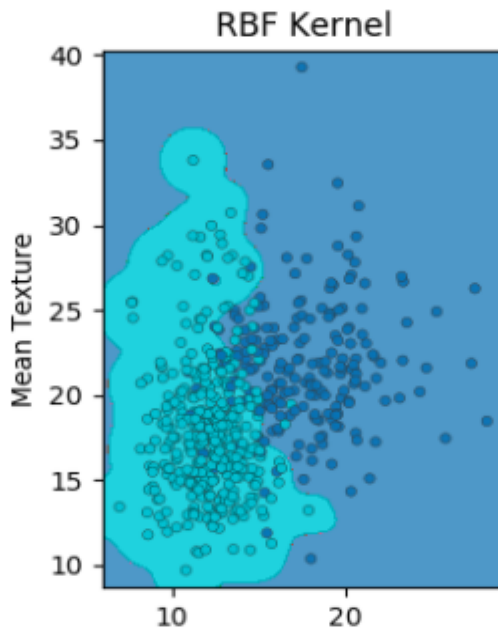
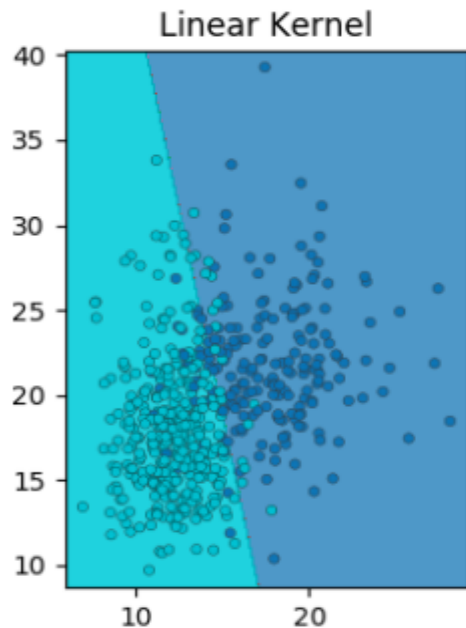
'Rbf' radial basis function/
Gaussian Kernel



Projecting to Higher Dimension



Projecting to Higher Dimension



Projecting to Higher Dimension

