

# Machine Learning 2

## Ergänzungsfach Informatik

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KSWE

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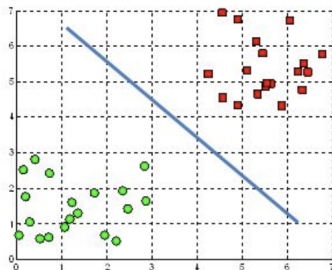
KANTONSSCHULE  
WETTINGEN  
GYMNASIUM  
FACHMITTELSCHULE

# Supervised Learning: Klassifikation

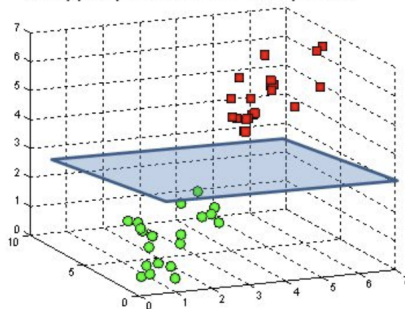


# Supervised Learning: Klassifikation

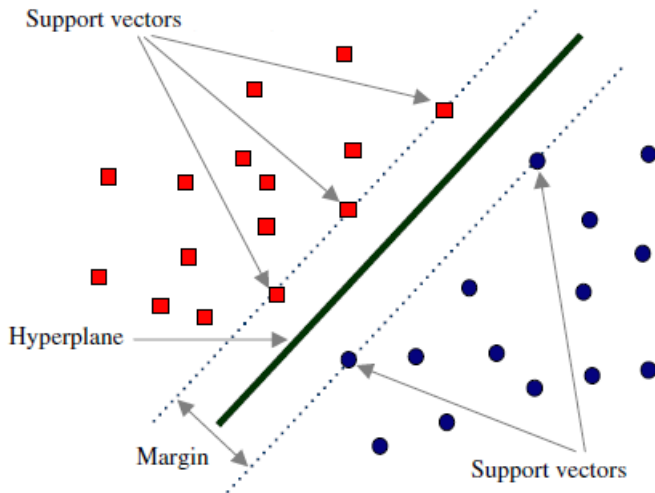
A hyperplane in  $\mathbb{R}^2$  is a line



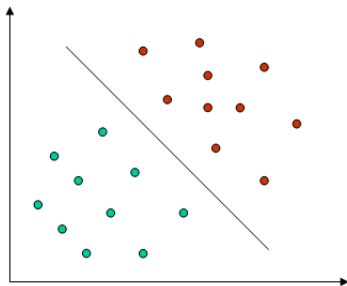
A hyperplane in  $\mathbb{R}^3$  is a plane



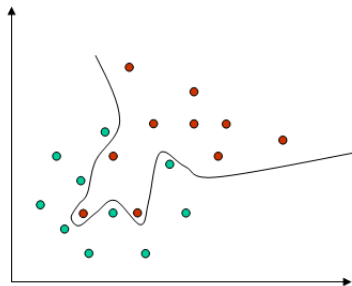
# Supervised Learning: Klassifikation (SVM)



# Supervised Learning: Klassifikation (linear separierbar)

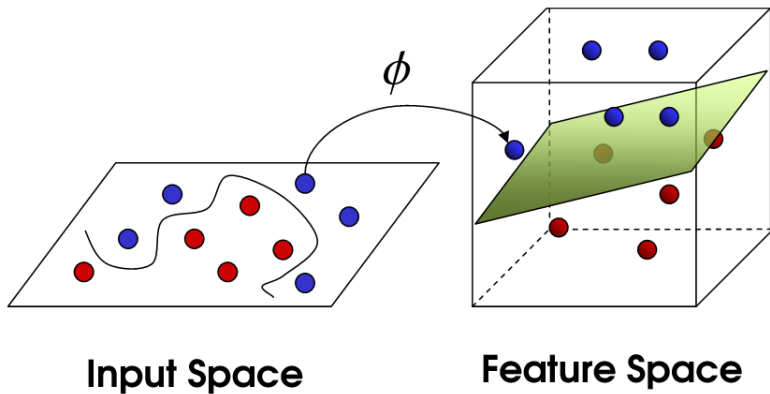


linear trennbar

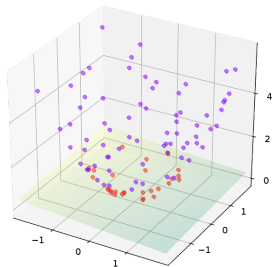
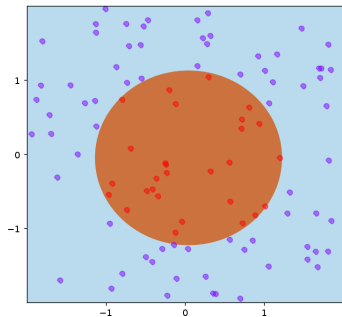


nicht linear trennbar

# Supervised Learning: Klassifikation (Kerneltrick)



# Supervised Learning: Klassifikation (Kerneltrick)



# Supervised Learning: Klassifikation (Kerneltrick)

Data points **NOT** linearly separable



Kernel



Linearly separable **after** transforming

