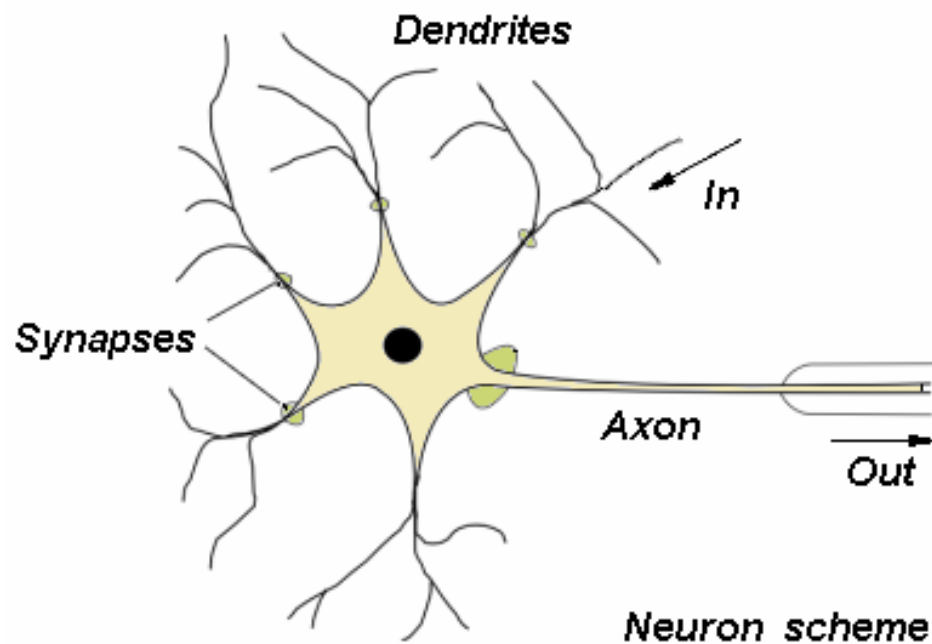


# Reti Neurali & Machine Learning

## Lezione 3

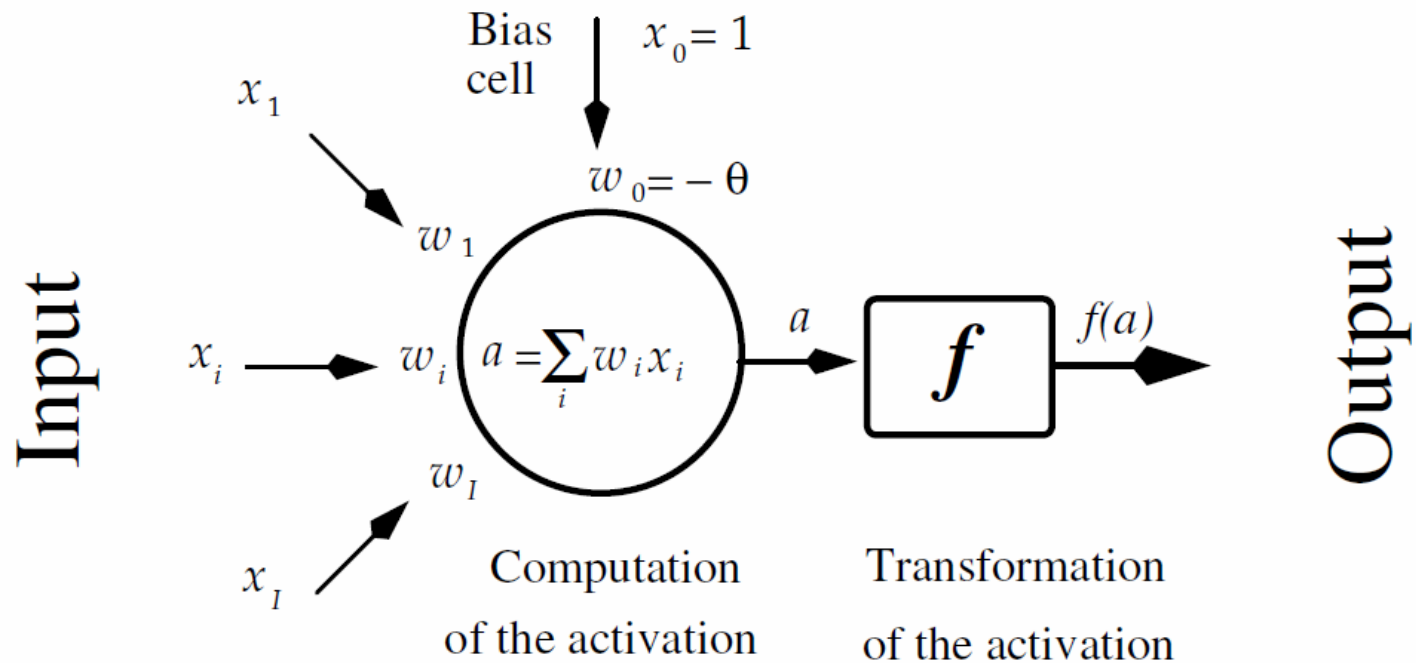
Reti Neurali:  
Percettrone semplice e multistrato

# Reti Neurali biologiche



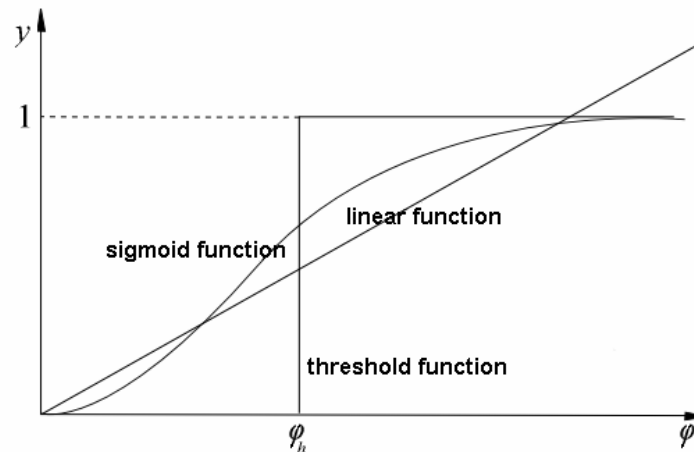
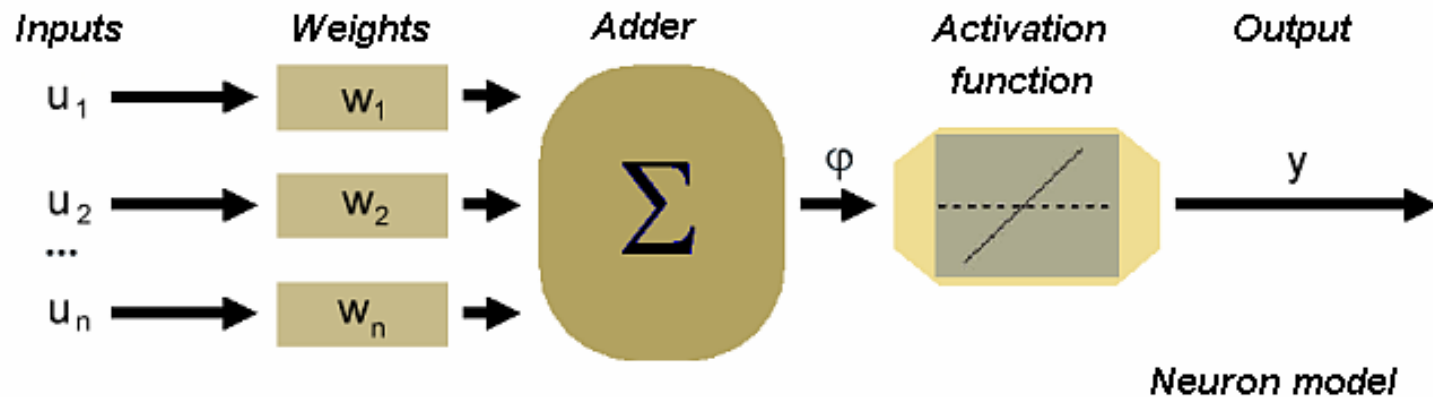
# Percettrone

## ■ L'unità base di una Rete Neurale (Artificiale)



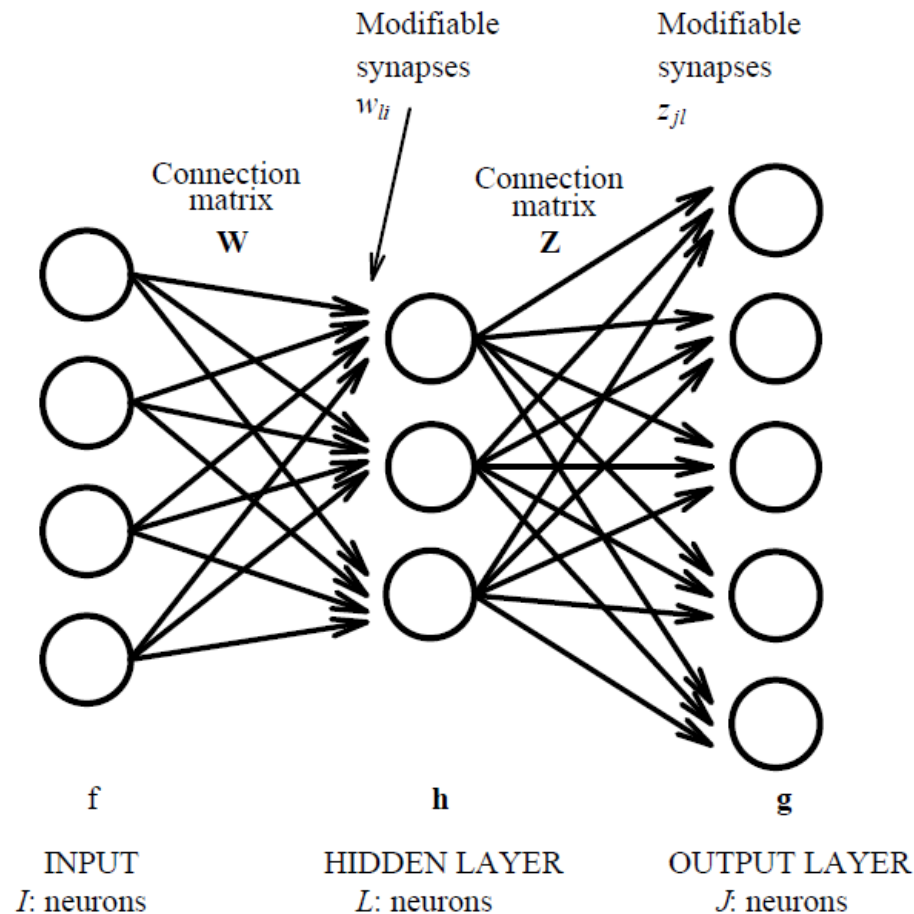
# Percettrone 2

## ■ Modello algoritmico



# Percettrone multi-strato

- Si compongono tante unità base in una gerarchia



# Addestramento

## ■ Error Back Propagation

- Minimizzazione del Rischio Empirico = minimizzo l'errore sugli esempi di addestramento che ho a disposizione

## ■ Vedere Lucidi:

- Mariusz Bernacki & Przemysław Włodarczyk

# Alcune referenze

- Abdi, H. A neural network primer. *Journal of Biological Systems*, 2, 247-281, (1994)
- Abdi, H. Neural Networks. In M. Lewis-Beck, A. Bryman, T. Futing (Eds): *Encyclopedia for research methods for the social sciences*. Thousand Oaks (CA): Sage. pp. 792-795.]