

TensorFlow



Fundamentos:

- Gradiente descendente
- Neurona artificial
- Red Neuronal
- Sistema distribuído

Gradiente descendente

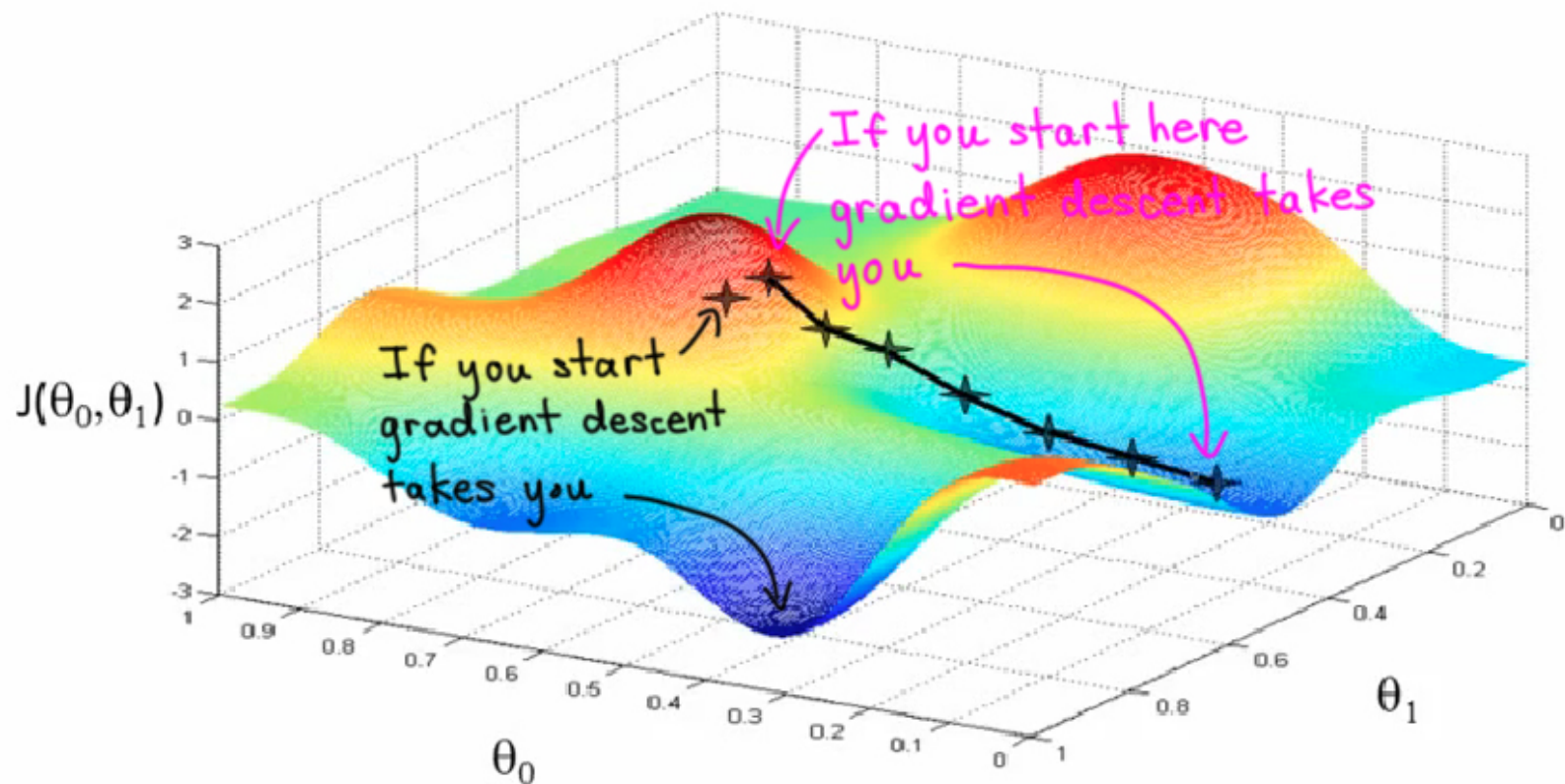
Expresión básica:

$$w = w - \alpha \nabla loss$$

Expresión más detallada:

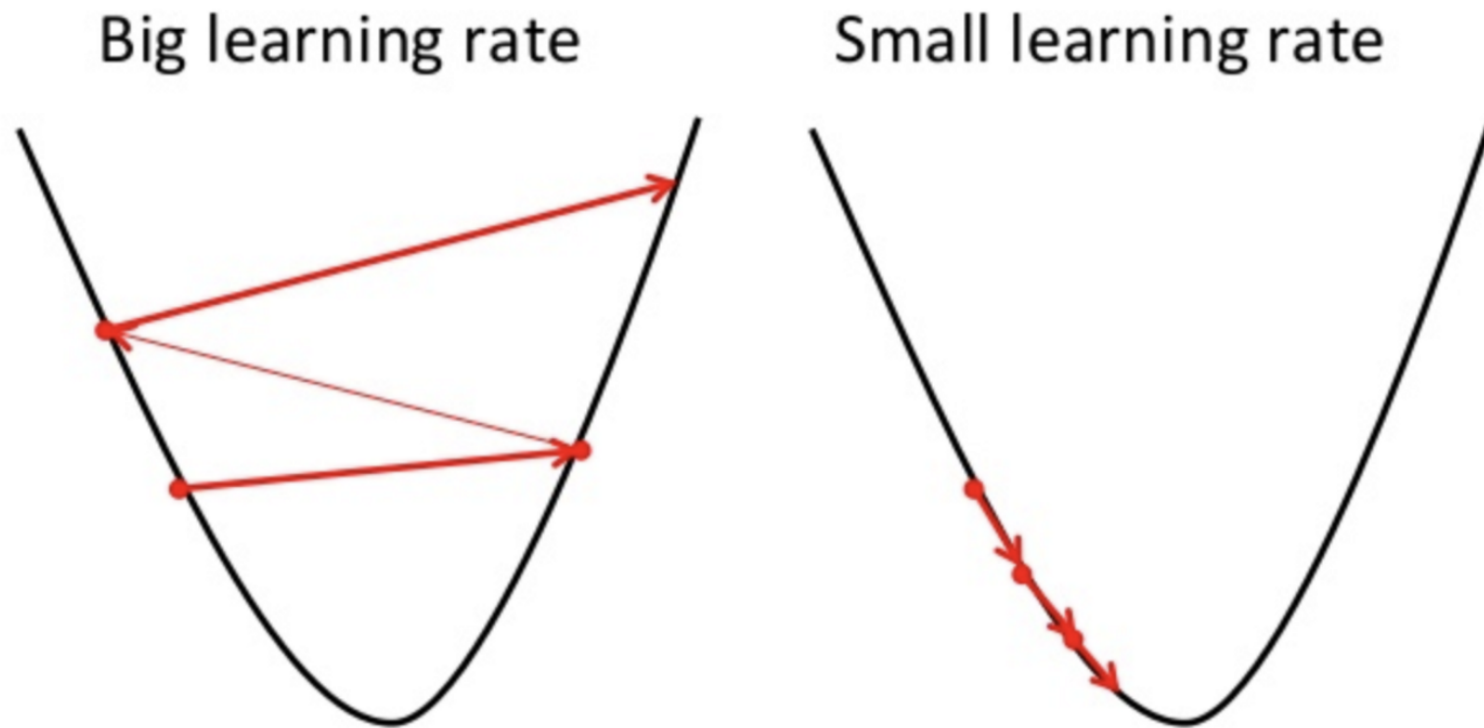
$$w = w - \alpha \frac{\partial loss}{\partial w}$$

Gradiente descendente



Gradiente descendente

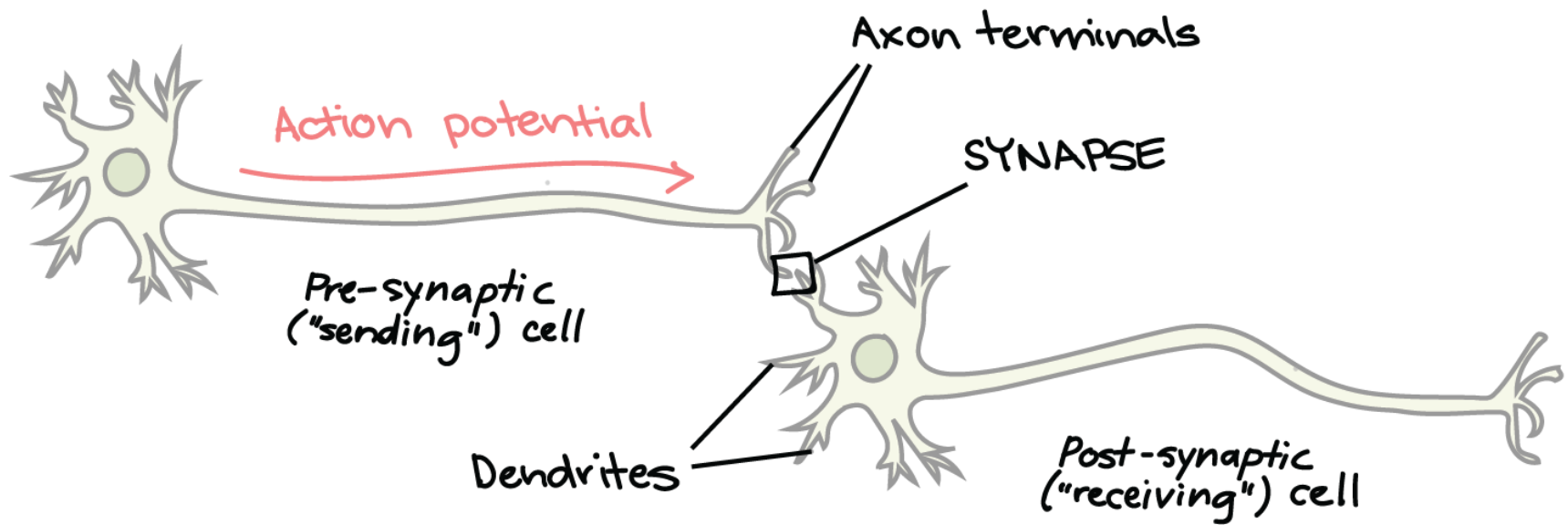
Cuidado con "aprender" muy deprisa (α grande)



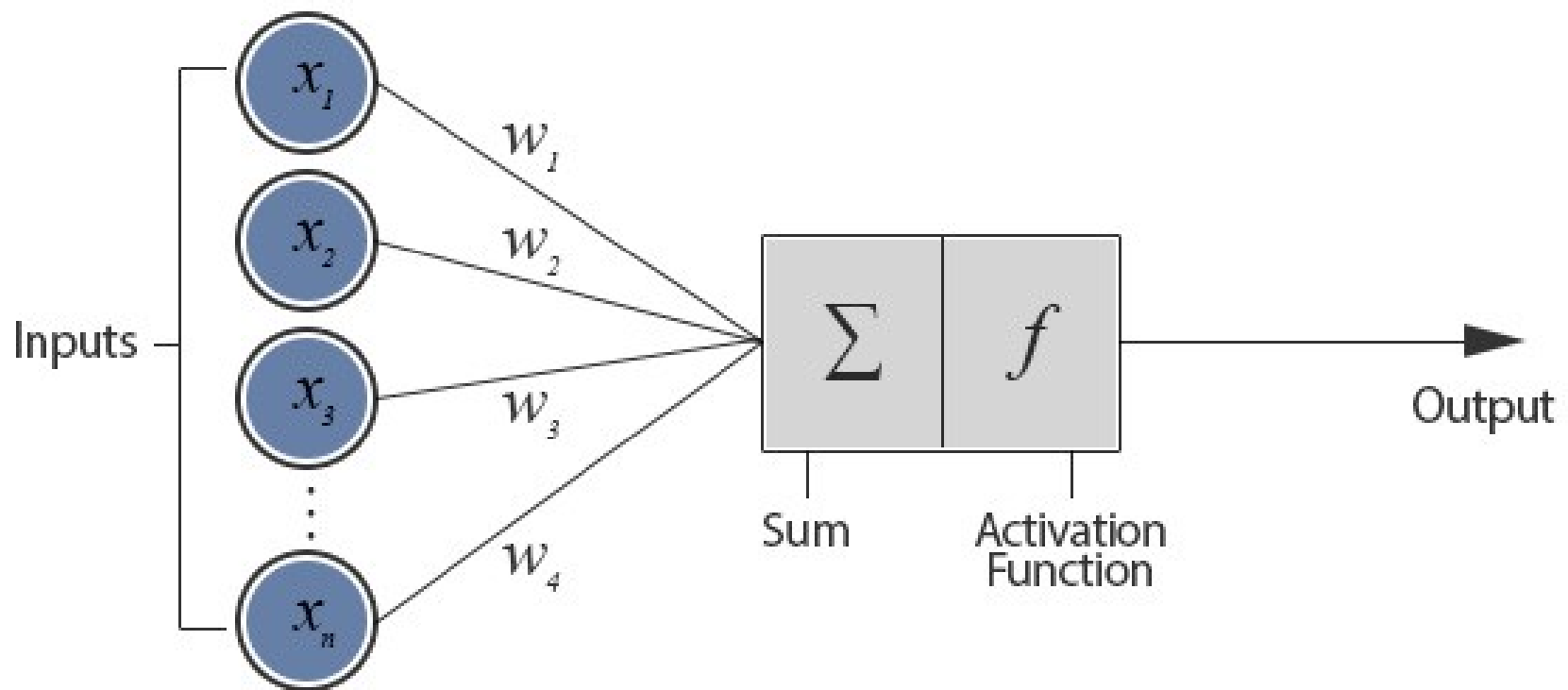
Nota: α es el learning rate

Neuronas artificial

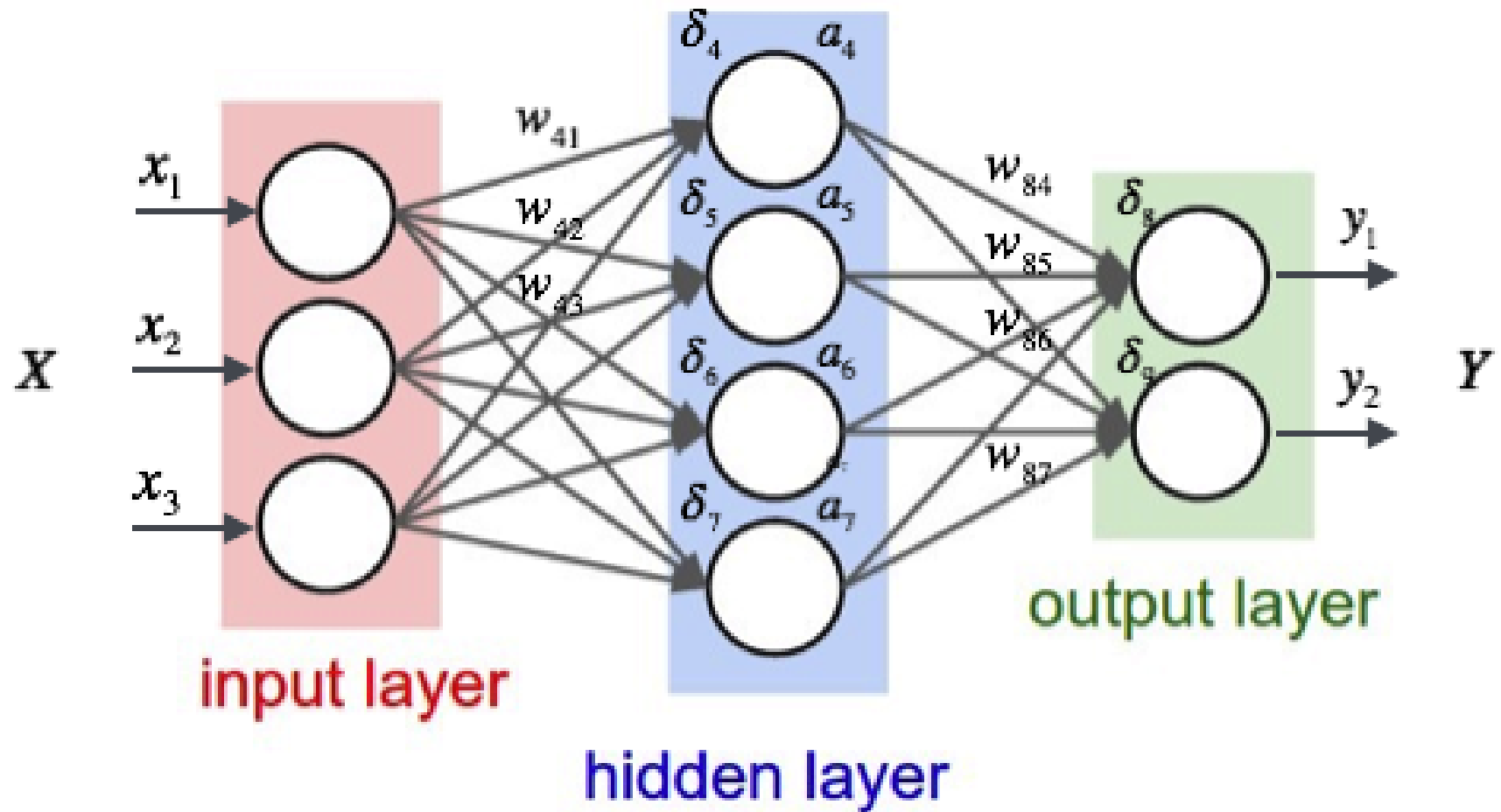
Neurona natural:



Neurona artificial:

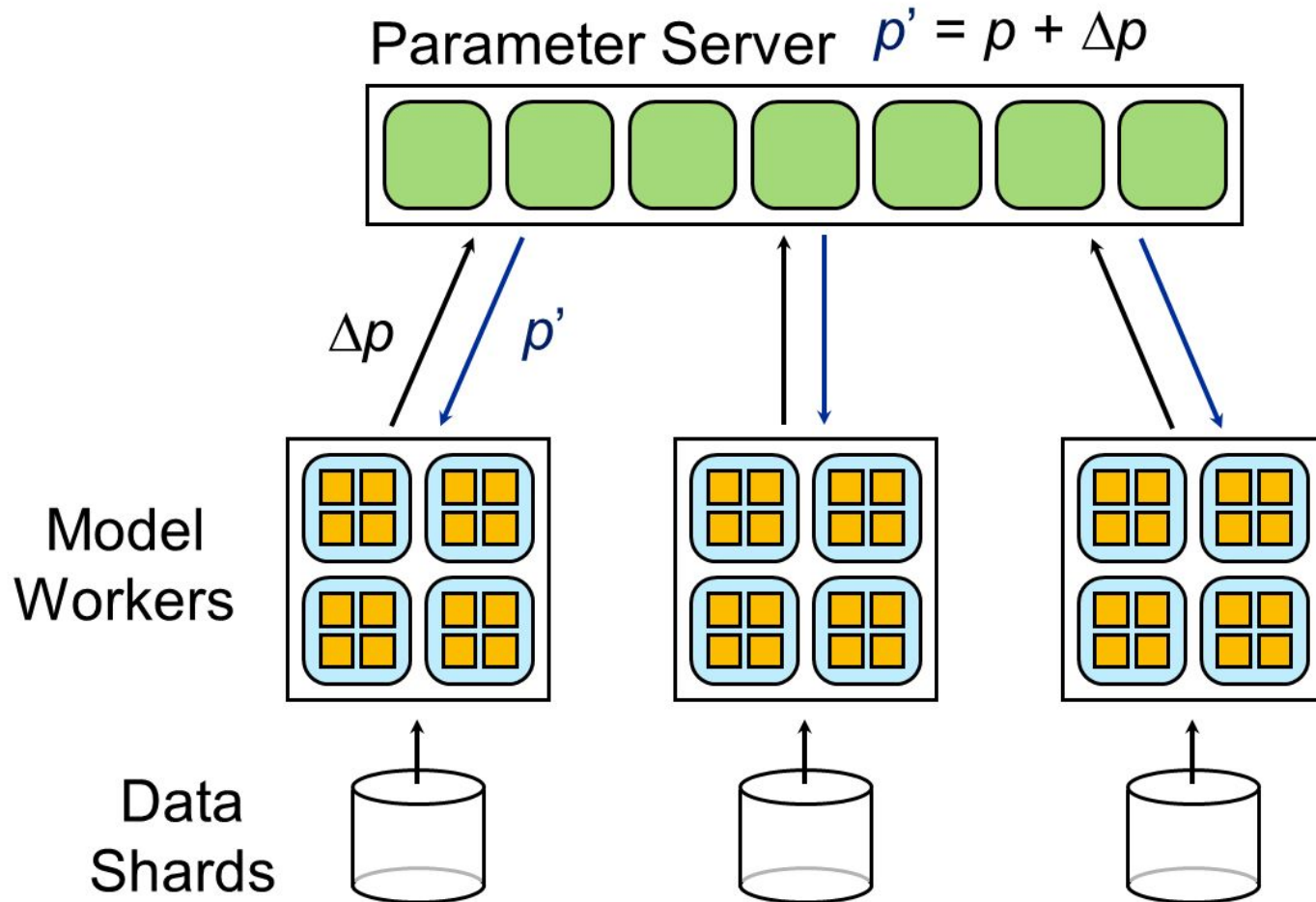


Red neuronal:



Sistema distribuído

Asynchronous Distributed Stochastic Gradient Descent



Pruebas:

<https://playground.tensorflow.org>