

# Machine Learning for Applied Physics and High Energy Physics

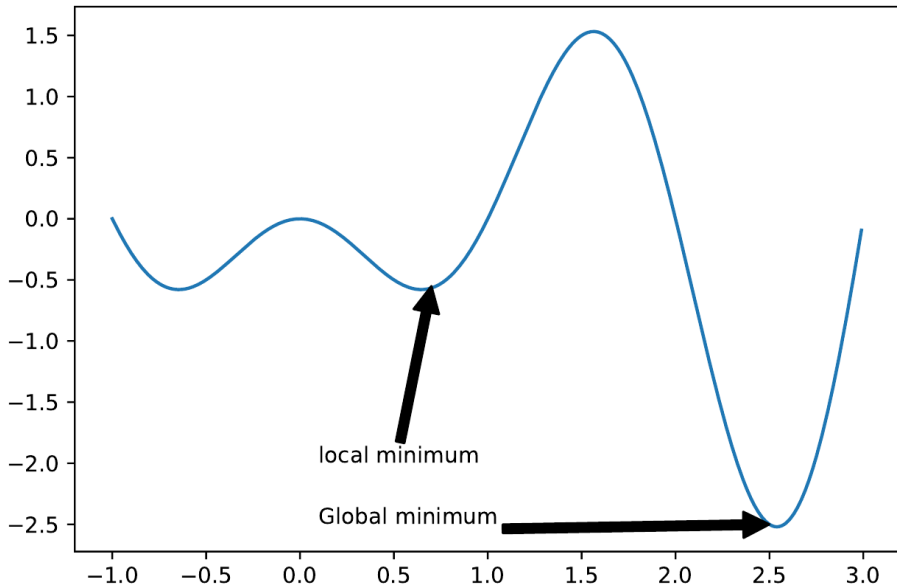
Lecture 4: Optimisation

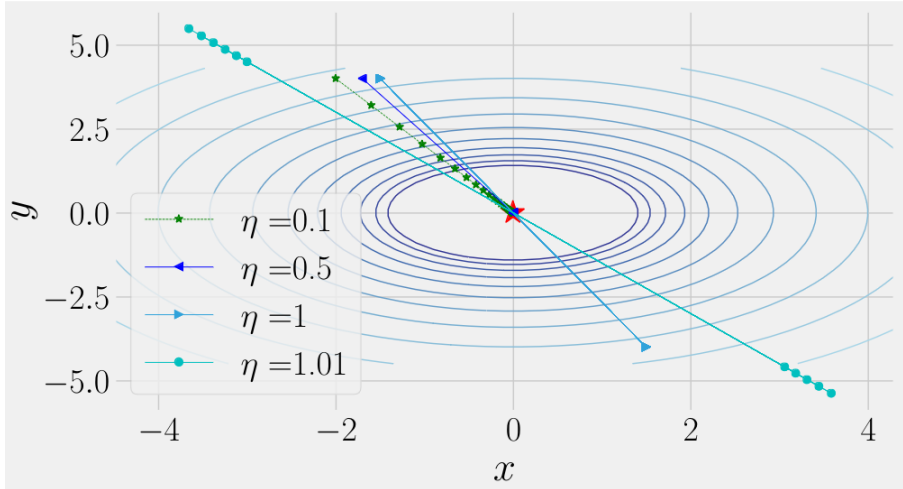
Emanuele R. Nocera

10 October 2023



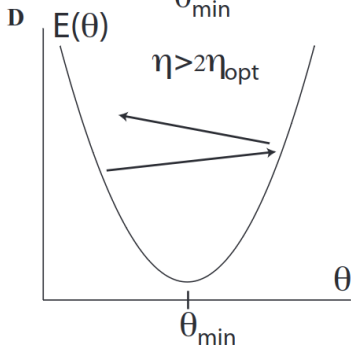
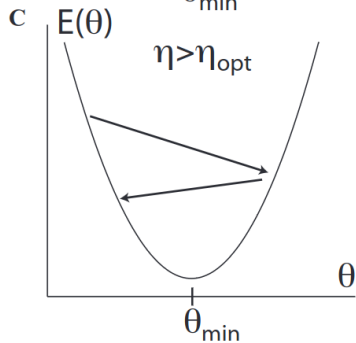
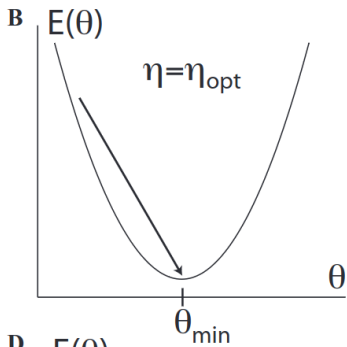
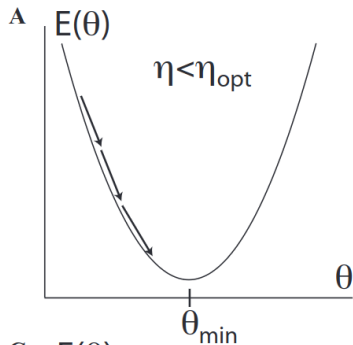
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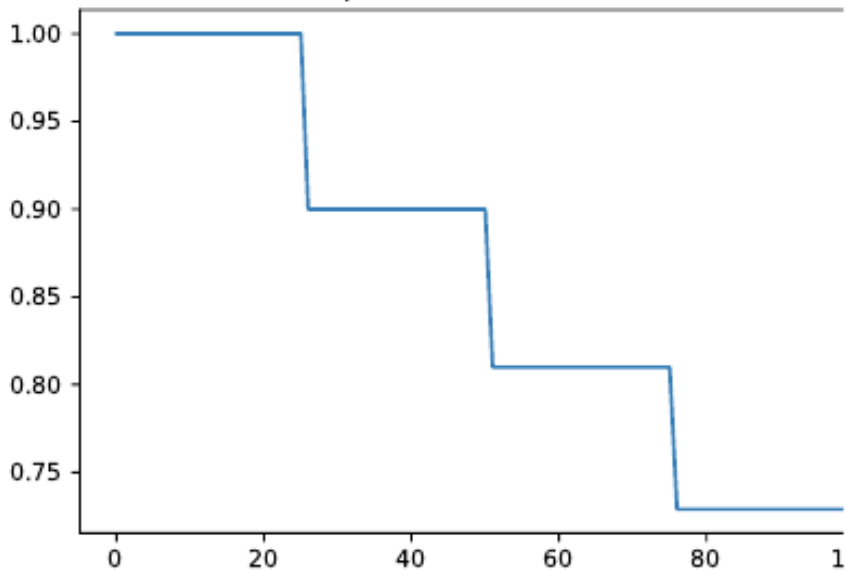


Surface of equation

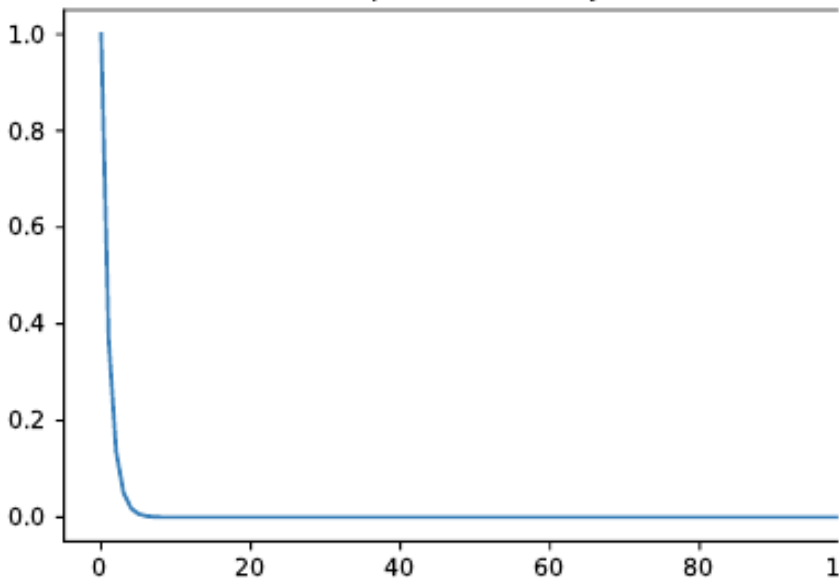
$$x = x^2 + y^2 - 1$$



## piecewise constant



## exponential decay



## polynomial decay

